

Principles of Religiosity and Spirituality in Medicine

Focus on Cardiovascular Practice

EDITORS

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Glauco Franco Santana
Sônia Francisca de Souza
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2nd Edition
English Version and Updates

Sociedade Mineira de Cardiologia

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Sociedade Mineira de Cardiologia | 2026

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Dedication

This dedication is woven with gratitude and reverence, a tribute to all who, over the decades, have sown and cultivated the fertile field of medical research and knowledge that culminates in this book. The journey of science is intrinsically collaborative. We express our profound gratitude to all the physicians, researchers, and healthcare professionals who, with their passion and persistence, have contributed and continue to build understanding of the complex intersection between body and spirit, especially in cardiovascular medicine.

The growing recognition of spirituality in health care also reflects an important moment of institutional and academic maturation. The establishment of a Commission on Spirituality and Health within the Conselho Federal de Medicina (in English: Federal Council of Medicine) represents a meaningful step toward acknowledging the relevance of this dimension in medical education and clinical practice. At the same time, the reception of this work by physicians and its growing presence in respected academic and medical settings in Brazil and internationally reaffirm the importance of bringing scientific knowledge on spirituality closer to everyday health care. This movement is also reflected in the increasing incorporation of spirituality into the scientific discussions, guidelines, and clinical practice of international cardiology societies, opening new paths toward a more comprehensive, person-centered approach to cardiovascular health.

We hope this work will serve as a link between scientific knowledge and the wisdom of human experience and inspire new generations to explore the depths of health in all its dimensions, continually helping the population.

The Editors and Authors.

Presentation

The complexity of human beings transcends mere biology, encompassing dimensions that, while essential for comprehensive health, are often overlooked in clinical practice. This book arises from the pressing need to fill a significant gap in the growing body of scientific evidence on the interaction between health, religion, spirituality, and medicine, especially in patients with cardiovascular disease.

This new English edition represents an important step in the development of this work, expanding its reach beyond its original context and making its scientific content accessible to physicians and health professionals around the world. By bringing together evidence, clinical experience, and practical approaches to religion, spirituality, and cardiovascular health, the book seeks to contribute to the growing international dialogue on more comprehensive and human-centered health care. We hope this edition will foster greater awareness, knowledge, and confidence among health professionals in recognizing and appropriately addressing the spiritual dimension of their patients' lives, across different cultures, beliefs, and health care settings.

Ethical practice involves a profound set of standards and guidelines, encouraging the best practice of medical science and comprehensive, compassionate, respectful, and effective care for the population. This publication is not intended to be a religious or philosophical treatise, but rather a compilation and analysis of scientific studies and practices that demonstrate the impact of the religious and spiritual dimension on health care, treatment, prevention, and recovery, including cardiovascular health.

There is a clear gap between scientific knowledge about religion and spirituality and their application in medical practice. This book aims to provide physicians, with special attention to cardiologists, with the principles for addressing and integrating the religious and spiritual dimension into patient care. The book addresses the understanding of fundamental concepts and the practical application of tools and interventions, considering the diverse beliefs, values, and religious and spiritual needs of individuals.

This work is composed of four sections, totaling sixteen chapters, written and revised by authors dedicated to cardiology and the study of the importance of religiosity and spirituality in medical practice, and also members of the Study Group on Spirituality and Cardiovascular Medicine of the Minas Gerais Cardiology Society. We sought to gather the best available research and scientific publications, free from conflicts of interest, to make this book a source of knowledge, reference, and training for physicians in this field.

This book contains content specially created to keep you up-to-date and allow for deeper knowledge through digital interactivity. It includes links to the audiobook version of all its content and to our organization's websites with materials and classes on the topic of this work. We hope that readers, especially cardiologists, will feel more confident and empowered to recognize, value, and, when appropriate, integrate the religious and spiritual dimensions into their patients' care, promoting more complete health and genuine well-being. This is an invitation to reflect and practice a medicine that heals not only the body but also soothes the heart and soul.

The Editors.

Preface – 1st Edition

“If you can’t understand, believe so that you may understand.

Faith precedes, intellect follows.”

Santo Agostinho

Medical practice presents us with countless challenges, both for healthcare professionals and for those seeking our care. How can we help, beyond technical and scientific knowledge, the patients who come to us with their pain and uncertainty? This question inspires reflection and necessarily opens up different paths for a more comprehensive approach to the human being.

The Sociedade Mineira de Cardiologia (in English: Minas Gerais Cardiology Society - SMC) is an organization born from the dream and dedication of a group of idealistic physicians on July 11, 1945. Since then, the SMC has been a pillar in the development of cardiology in Minas Gerais. With a track record of excellence, the institution stands out for its high-quality scientific events, prevention campaigns, and constant pursuit of better quality care for heart disease patients.

Over the years, the SMC has expanded its operations to various regions of the state, establishing regional offices and consolidating its presence in the interior of Minas Gerais. And with an unwavering commitment to continuing medical education, the SMC holds webinars, departmental symposia, courses, and its annual congress. The goal is simple but fundamental: to bring knowledge to all cardiologists in Minas Gerais.

Within this context, one of the pillars of our Society is the promotion of knowledge through dialogue and the exchange of experiences, seeking answers that transcend convention. Among the paths we take, exploring the connection between physical, mental, and spiritual health stands out as one of the most significant for our organization, which is why the Grupo de Estudos de Espiritualidade em Medicina Cardiovascular of SMC (in English: Study Group on Spirituality and Cardiovascular Medicine) was created in 2024.

In light of this, the publication of this book has become extremely important, and we have focused on this project, hoping that it will help us understand more about the possibilities of comprehensive care. The added benefit of religiosity and spirituality opens doors to hope, dignity, compassion, gratitude, and forgiveness. It enhances the discovery of internal harmony, generates a sense of purpose, stimulates the search for a greater meaning in living and caring, and, notably, understands the human person as a whole and not just as a sum of its separate parts.

Preface – 1st Edition

From concepts and definitions to biological aspects and assessment methods, this publication aims to guide us toward the comprehensive technical-scientific medical knowledge of our specialty. It emerges as a valuable tool to assist us in the difficult task of offering support, comfort, and a sense of peace during the most vulnerable moment of humankind: illness.

This book, therefore, represents an invitation for us, healthcare professionals, especially those in cardiology, to reflect on the role of religiosity and spirituality in our professional practice. If health is defined as a state of complete well-being — physical, mental, social, and spiritual — let this publication inspire us, for, as Saint Augustine reminds us, sometimes it is necessary to believe in order to understand, and it is in the union of science and religiosity/spirituality that we can find deeper answers to the challenges of a modern, gentle, and more humane medicine.

Luiz Guilherme Passaglia

President of the Sociedade Mineira de
Cardiologia - SMC (2024-2025)

Preface - 2nd Edition

From its very inception, *Principles of Religiosity and Spirituality in Medicine: Focus on Cardiovascular Practice* was conceived with a mandate that transcends geographic boundaries: to acknowledge, through rigorous science and human compassion, the spiritual dimension as an indispensable element of patient care. Thus, the Minas Gerais Cardiology Society (SMC), via its Study Group on Spirituality and Cardiovascular Medicine (GEMCA), takes immense pride in offering this work to the global medical community.

The role of religiosity and spirituality in clinical practice transcends cultural, linguistic, and institutional boundaries. Spanning continents, creeds, and traditions, it resonates deeply across medical specialties and health disciplines alike. In their daily practice, healthcare providers routinely engage with patients whose faith, beliefs, and spiritual values profoundly shape their response to illness and therapeutic care.

Expanding the reach of this work internationally reflects a spirit of scientific generosity. It manifests our hope that the knowledge cultivated in Minas Gerais will foster meaningful dialogue with researchers, institutions, and healthcare professionals worldwide, further solidifying a global movement toward human-centered medicine.

Publishing this English edition underscores our commitment to open-access knowledge, offering physicians, academics, and researchers across nations the fruits of our authors' and collaborators' tireless work. May this book cross oceans and language barriers, reaching those in need, and establish itself as a cornerstone for dialogue, teaching, and medical practice worldwide.

On behalf of the Minas Gerais Cardiology Society, I express my sincere appreciation to all who brought this vision to life, and above all, to those taking it far beyond our borders.

With the utmost esteem and warm regards,

Frederico Toledo Campo Dall'Orto
President of the Sociedade Mineira de
Cardiologia - SMC (2026-2027)

21st Century

We live in the century of communications, the century of viral diseases. Since the AIDS pandemic at the end of the 20th century, we have seen global outbreaks of Zika, Chikungunya, avian flu, swine flu, and COVID-19 in the last three decades, as well as regional epidemics of Ebola in Africa, dengue fever in Brazil and the Belo Horizonte metropolitan area, and outbreaks of yellow fever and monkeypox.

Despite half a century of viral epidemics, the 21st century is marked by the cult of technology and skepticism. Atheism has been a hallmark of the Western population and one of the main characteristics of scientists in this century.

Although we live in the “Century of Communication,” we see, every day, an intergenerational divide that arose long ago, widening immeasurably. Even within generations, we have created insurmountable walls of dialogue. We close ourselves off in groups of one mind, refusing to accept dialogue with divergent opinions, which turn into battles rather than sources of growth. One of the consequences of the COVID-19 pandemic has been the exacerbation of isolationism, the “voluntary” withdrawal from society. As a result, we see, especially in our country, an absurd increase in the number of cases of depression and even suicide. Could a lack of faith be one of the reasons for this epidemic?

If we recall the history of our Western society, we can see that medicine was literally born in the arms of the gods. The patron saint of medicine, Hippocrates, is a disciple of Asclepius, the Greek god of medicine. We must remember that the first health centers/hospitals were temples where doctors/priests and nurses/priestesses practiced the teachings of the gods. It is important to emphasize that, in the Hippocratic Oath, the first part is an invocation and thanksgiving to the gods.

In the Muslim world, where there are some examples of a secular state, medical experiments are still carried out under the control of the mullahs. Reinforcing this thought, we must remember that the art of healing among Native Americans, whether among peoples and tribes in Africa and Europe, was the domain of shamans and sorcerers.

With all these facts, spirituality and religiosity are closely linked to medical practice. Studies show that faith is important to human beings and to the practices of society, but to achieve this, we must discuss, learn, and grow.

Prologue

Agnosticism, atheism, and the secular state – creations of humanity since the Renaissance – have raised important questions, but have not always been accompanied by answers. Fanaticism and blind faith also fail to answer these same questions.

In the 21st century, technology brings us challenges, and despite agnosticism, science creates its technological gods. Prophets of atheism and agnostic envoys create, among scientists and politicians, the same technological resources as the gods of the 21st century. Faith is fixed among men or technology, no longer in the ethereal. Gods with “feet of clay.” Are these false gods the answer? This is why we need to bring up the discussion of spirituality. This is why works and discussions like this are crucial.

Ricardo Hernane Lacerda Gonçalves de Oliveira

President of the Conselho Regional de
Minas Gerais – CRM-MG (2025-2027)

Instructions

Digital Version

This book is free and was designed to offer its medical scientific content in several formats:

- **Printed (Portuguese and English):** limited edition.
- **Digital (Portuguese and English):** in PDF format, accessible on various devices (computers, tablets, smartphones).
- **Audiobook in Portuguese:** narration of the book's entire content. Online audio access, allowing for listening while commuting or engaging in physical activities, as well as ensuring accessibility.



Additionally, interactive features have been incorporated to provide an enhanced reading experience and learning that is more dynamic, immersive, and up-to-date:

- **Linked buttons:** clicking these directs the reader to the Sociedade Mineira de Cardiologia (SMC) website, where multimedia content and up-to-date information are available.
- **QR code:** scanning this with a mobile phone camera or webcam gives the reader direct access to content on the SMC website.
- **ORCID (*Open Researcher and Contributor ID*):** clicking this allows the reader to access information on the researcher's recent publications.
- **Linked Table of Contents and Subject Index:** clicking a page number opens that page, facilitating navigation and access to the desired content.
- **References with DOI and links:** cited articles include their DOI (Digital Object Identifier) and a link to the journal or publication's official website. Items with free, full-text access are marked "FREE" (verified as of July 2026).



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- Although this book addresses important issues regarding holistic health, it is not intended to provide spiritual or psychological guidance to individuals experiencing distress or an underlying mental health disorder. Individuals struggling with such issues should seek help from qualified medical professionals.

Abbreviations

95% CI	95% confidence interval	DBP	Diastolic blood pressure
ABP	Associação Brasileira de Psiquiatria	DBT	Dialectical Behavior Therapy
ACBRAS	Associação de Capelania do Brasil	DEMCA	Departamento de Espiritualidade e Medicina Cardiovascular da Sociedade Brasileira de Cardiologia
ACP	Associação de Capelães Profissionais	DFS	Decisional Forgiveness Scale
ACPE	The Standard for Spiritual Care & Education	DI	Dignity Impact
ACS	Acute coronary syndrome	DPC	Continuing professional development
ACpS	Associação de Capelania na Saúde	DPES	Dispositional Positive Emotions Scale
ACT	Acceptance and Commitment Therapy	DSES	Daily Spiritual Experiences Scale
AHS	Adult Hope Scale	DSHS	Domain-Specific Hope Scale
AI	Artificial intelligence	DSM	Diagnostic and Statistical Manual of Mental Disorders
AMI	Acute myocardial infarction	DUREL	Duke University Religion Index
ARS	Anger Rumination Scale	EFS	Emotional Forgiveness Scale
BDI	Beck Depression Inventory	EOM	Effects of Meditation Scale
BFS	Bolton Forgiveness Scale	EQ	Experiences Questionnaire
BIAC	Belief into Action Scale	EM-ICHP	Evidence Maps of Integrative and Complementary Health Practices
BMI	Body mass index	FABAPAR	Faculdades Batista do Paraná
BMMRS	Brief Multidimensional Measure of Religiousness and Spirituality	FACIT-Sp	Functional Assessment of Chronic Illness Therapy - Spiritual Well-Being
BP	Blood pressure	FACT	Spiritual history questionnaire - Faith/Activity/Coping/Conflict/Treatment
BRS	Baroreflex sensitivity	FBO-CI	Faith-Based Organization Capacity Inventory
BWD	Being with Dying Programme	FFMQ	Five Facet Mindfulness Questionnaire
CAD	Coronary artery disease	FICA	Spiritual history questionnaire - Faith/Importance/Community/Action
CAM	Complementary and alternative medicine	FIT	Faith Influencing Transformation
CAMS-R	Cognitive and Affective Mindfulness Scale-Revised	FMI	Freiburg Mindfulness Inventory
CANMAT	Canadian Network for Mood and Anxiety Treatments	FOSS	Forgiveness of Self Subscale
CBCT	Cognitively Based Compassion Training	GBD	Global Burden of Disease
CBT	Cognitive behavioral therapy	GEMCA	Grupo de Estudos em Espiritualidade e Medicina Cardiovascular
CBO	Classificação Brasileira de Ocupações	GPT	Generative Pre-trained Transformers
CCT	Compassion Cultivation Training	GQ-6	Gratitude Questionnaire-Six-Item Form
CEB	Cultivating Emotional Balance	GR	Grade of recommendation
CEM	Código de Ética Médica	GRAT	Gratitude Resentment and Appreciation Test
CFM	Conselho Federal de Medicina	GSHS	Goal-Specific Hope Scale
CfPS	Faith Practices Scale for the Church	HbA1c	Glycated hemoglobin
CHS	Children's Hope Scale	HDL	High-density lipoprotein
CI	Confidence interval	HF	Heart failure
CM	Compassion Meditation	HFS	Heartland Forgiveness Scale
CONFECAP	Conselho Federal de Capelania	HHI	Herth Hope Index
CPD	Continuing professional development	HPA axis	Hypothalamic-pituitary-adrenal axis
CPE	Clinical pastoral education	HPLP-II	Health Promoting Lifestyle Profile II
CRP	C-reactive protein	HTN	Hypertension
CRMMG	Conselho Regional de Medicina do Estado de Minas Gerais		
CT	Complementary therapy		
CVD	Cardiovascular disease		
DCT	Dignity Card-sort Tool		

Abbreviations

ICHP	Integrative and Complementary Health Practices	PHLMS	Philadelphia Mindfulness Scale
ICU	Intensive care unit	PHQ-9	Patient Health Questionnaire-9
IHS	Integrative Hope Scale	PI	Prayer Inventory
IL	Interleukin	PRC	Positive religious coping
IPDS	Inpatient Dignity Scale	PSWQ	Penn State Worry Questionnaire
IVCS	International Voluntary Chaplaincy Service	PTS	Prayer Types Scale
JACC	Journal of the American College of Cardiology	QATSAH	Questionnaire of Adherence to the Treatment of Hypertension
JHS	Jackson Heart Study	QoL	Quality of life
KIMS	Kentucky Inventory of Mindfulness Skills	RCOPE	Religious Coping Scale
LDL	Low-density lipoprotein	RCT	Randomized controlled trial
LKM	Loving-Kindness Meditation	R/S	Religiosity/spirituality
LOT-R	Revised Life Orientation Test	Re/Sp	Religious/spiritual
LS7	Life's Simple 7	RR	Relative risk
MAAS	Mindfulness Attention Awareness Scale	RSC	Religious/Spiritual Coping
MAPA	Ambulatory blood pressure monitoring	RSI	Religious and/or spiritual interventions
MBCT	Mindfulness-based Cognitive Therapy	S/HA	Spiritual/health assessment
MB-EAT	Mindfulness-Based Eating Awareness Training	SBC	Sociedade Brasileira de Cardiologia
EBM	Evidence-based medicine	SCES	Supportive Church Environment Score
MBRE	Mindfulness-Based Relationship Enhancement	SF-36	Short Form Health Survey
MBRP	Mindfulness-Based Relapse Prevention	SHALOM	Spiritual Health and Life-Orientation Measure
MBSR	Mindfulness-Based Stress Reduction	SHS	State Hope Scale
MEC	Ministério da Educação	SMC	Sociedade Mineira de Cardiologia
MEQ	Mystical Experience Questionnaire	SMQ	Southampton Mindfulness Questionnaire
MF	Mindfulness	SNAP	Spiritual Needs Assessment for Patients
MFP	Mindfulness practice	SOCQ	States of Consciousness Questionnaire
MIDAM	Measurement Instrument for Dignity Amsterdam	SPIRIT	Spiritual history questionnaire – SPIRIT
MMS	Mindfulness/Mindlessness Scale	SSFS	State Self-Forgiveness Scale
MOFS	Marital Offense-Specific Forgiveness Scale	STEP	Study of Therapeutic Effects of Intercessory Prayer
MPI	Multidimensional Prayer Inventory	STS	Spiritual Transcendence Scale
MSC	Mindful Self-Compassion	SC	Spiritual care
NHS II	Nurses' Health Study II	SUS	Sistema Único de Saúde
NRC	Negative religious coping	SWBS	Spiritual Well-Being Scale
NYHA	New York Heart Association	TCC	Cognitive behavioral therapy
FBO	Faith-based organizations	TD	Dignity therapy
OCB	Ordem dos Capelães do Brasil	TMS	Toronto Mindfulness Scale
OCEB	Ordem dos Capelães Evangélicos do Brasil	TNF	Tumor necrosis factor
P	p-value	UCEBRAS	União de Capelães Evangélicos do Brasil
PAP	Mindfulness practices	USA	United States of America
P-DUREL	Brazilian Portuguese version of the DUREL	VTVPP	AHS scale validated for Portuguese from Portugal
PDI	Patient Dignity Inventory	WHO	World Health Organization
PDQ	Patient Dignity Question	WHOQOL-SRPB	World Health Organization Quality of Life – Spirituality, Religion and Personal Beliefs
PFS	Prayer Functions Scale		

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Chapter 1.1

Concepts and Definitions in Religiosity and Spirituality



Chapter available
in Portuguese.

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Roni Arley Silva Duque

José Carlos da Costa Zanon

Odilon Gariglio Alvarenga de Freitas

1.1.1. Introduction

This book offers the reader practical training in the science of health, religion, spirituality, and cardiovascular medicine. To this end, the most widely used concepts and the most relevant authors will be prioritized in the quest to standardize communication with the scientific world.

Different scholars, in many countries, have conceptualized the terms discussed in this book in their own ways. Therefore, these concepts pose a cross-cultural and generational challenge in their definitions, as they were constructed over time, according to the academic school of origin, and are still subject to numerous modifications today. As their mechanisms and singularities are studied and better understood, the concepts are refined and consolidated.

Furthermore, it is clear that these concepts are not consensual, diverging to some degree among the authors themselves. The fact is that, despite this conceptual challenge, much progress has been made in scientific studies of human and religious behavior over the centuries. Currently, these definitions are moving towards progressive improvement, which allows for the carrying out of scientific

and clinical research in the search to overcome merely conceptual barriers and enter their practical dimension.¹

1.1.2. Religion

To conceptualize religion, it is necessary to understand the common aspects of all of them, so that the terms sects, creeds, and community groups are not confused with the term religion. Religions share a sense of community formation, a system of moral and transcendental beliefs, specific rituals and practices for connecting with what is considered transcendent or sacred, and a set of dogmas that support what is called faith.²

Seeking to bring together these singularities, Koenig et al. define religion as a “phenomenon in which a system of beliefs and practices unites adherents in a community with a shared vision to achieve union with, or the experience of, the divine or transcendent”.²

In the Updated Cardiovascular Prevention Guideline of the Brazilian Society of Cardiology - 2019, religion was defined as “a multidimensional construct that includes beliefs, behaviors, dogmas, rituals, and ceremonies that can be performed or practiced

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in private or public contexts, but are in some way derived from traditions.”³

It is through religion that the majority of the Brazilian and global populations are able to organize and institutionalize their way of connecting with what they consider transcendent, divine, or sacred. However, this does not imply that a religious experience is only possible through religion; rather, the means by which these relationships occur are facilitated by a systematized belief system.³

1.1.3. Religiosity

Religious experience, more than a label or self-designation, has several domains and personal impacts, as well as different ways of being experienced. Each of these can lead to diverse personal results and health outcomes, both positive and negative. Studies on religious behavior have allowed for the stratification of religious experience, which is termed Religiosity. For Koenig et al., the term religiosity refers to how involved and committed a person is to their religious beliefs, rituals, and practices. Through this understanding, religiosity involves not only attending religious services or other institutional forms of participation, but also includes many other aspects that are personal and private.^{2,4}

Religiosity can be grouped into four broad categories: organizational, non-organizational, subjective/intrinsic, and extrinsic.^{2,4} Organizational and non-organizational religiosity is related how individuals develop their religious practices within and outside their social context. The first involves religious practices performed in institutionalized social settings, such as study groups, prayer groups, masses, and participation in various rituals, according to one's belief system. It can be easily measured by the frequency of daily, weekly, or monthly participation, for example. Non-organizational religiosity refers to religious activities performed in private contexts, not necessarily organized by the religious institution, and which denote some degree of personal commitment and internalization regarding one's beliefs, such as prayers, meditations, reading, and following digital media (television, internet, radio, music, and cell phones) or non-digital media (books, newspapers, pamphlets).⁵

Intrinsic/subjective and extrinsic religiosity correlate with the motivational dimension of an individual's religious aspect, that is, the determinants that motivate a person

to seek contact with what they consider sacred. Intrinsic religiosity refers to the cognitive dimension of belief and reflects its importance or centrality in a person's life. In this motivational profile, religion becomes the ultimate goal, not the means to achieve the desired objective. It also refers to the extent to which individual behavior is guided by religious teachings, concepts, and dogmas, as well as their notions of ethics, morals, and civility. On the other hand, extrinsic religiosity is a motivational profile that uses religion as a means, not an end, to achieve secondary gains (not necessarily religious), such as social and community projection, economic benefits, and the pursuit of peripheral community contacts.²

All these dimensions of religious involvement can be characterized, measured, and studied in human behavior, and are not mutually exclusive. Furthermore, although most studies indicate that a predominance of intrinsic, non-organizational religiosity generally leads to more positive overall health outcomes, echoing common sense, it is a mistake to say that these are behavioral dimensions that are better or worse for the individual. This occurs because there are studies in which isolated religious attendance is a marker of positive health outcomes and may reflect more organizational or extrinsic religiosity.⁶

1.1.4. Religious/Spiritual Coping

An important concept in understanding religiosity/spirituality (R/S) in clinical practice is that of coping. The term coping is part of mental health and human behavior studies, representing, in summary, the personal strategies that an individual uses to deal with emotional stress.⁷ Originally, the term religious/spiritual coping (RSC) was coined by Kenneth Pargament, one of the greatest scholars in the field, to express how an individual uses religion as a tool to deal with emotional stress. It can be both positive (positive religious coping – RSC-P) and negative (negative religious coping – RSC-N) and manifest itself differently among individuals, also producing different outcomes.⁸

For example, an individual who incorporates the idea of a punitive, vengeful, and threatening deity into their religious experience may understand that difficult situations in their life are consequences of divine intervention, which can further increase their levels of stress, anxiety, and depression, and

reduce their personal motivation. Conversely, an individual of the same religion may understand the same situation as a divine test, an opportunity for improvement, and even a blessing, stimulating their personal motivation to face it. Therefore, in both the first and second cases, religious belief can be decisive in escaping or worsening a stressful situation, varying depending on the centrality of this religious belief in one's life.^{9,10}

Current studies indicate that RSC-P is associated with better cardiovascular health outcomes, while RSC-N is associated with worse outcomes. There are scales and scores to grade and stratify this in the population and in religions in general, a topic that will be discussed in the next chapters.^{9,10}

1.1.5. Spirituality

Despite all the definitions of the religious aspect of human behavior, the concept of spirituality is much more varied and challenging. For a long time, the term “spiritual” was used to refer to extremely religious people, associated or affiliated with clerical institutions, and whose personal experiences were essentially related to them. However, in recent decades, the meaning of “spiritual” (and consequently, spirituality) in the scientific community has changed and expanded, encompassing other aspects of human life, not necessarily linked to religion.^{2,11}

A commonly used term, “spiritual, but not religious,” refers to individuals who identify as spiritual but not religious and who manifest non-traditionally religious aspects, such as purpose, a sense of peace, and deep self-harmony. This situation has made a universalized definition of spirituality difficult and controversial. Many clinical studies have not made this distinction between concepts, making it difficult to interpret the results regarding mental health and human behavior.^{2,11}

A partial explanation lies in anthropological and sociological aspects, since human beings have historically sought to establish a connection with what they consider transcendent, sacred, and divine even before establishing themselves as organized religious communities. Consequently, this seek for connection may or may not be associated with religious doctrines and may be part of human behavior.¹²

For Koenig et al., spirituality is “a set of individual beliefs, practices, and ways of being that aim to assist in achieving union or experience with the divine or transcendent,” emphasizing the idea of a search for a greater or higher meaning. In the 2019 update of the Cardiovascular Health and Prevention Guideline BSC, the concept used was “a set of moral, mental and emotional values that guide thoughts, behaviors and attitudes in the circumstances of intra and interpersonal relationships”, expanding its scope to the importance of art, the relationship with nature and with others, as well as other denominations such as secular humanism.^{2,3}

According to Puchalski et al., spirituality is a dynamic and intrinsic dimension of human life through which individuals seek meaning, purpose, and transcendence, while experiencing connection with themselves, others, nature, and the significant or sacred. It may be expressed through beliefs, values, traditions, and practices and is not limited to religious affiliation. This broad understanding allows spirituality to be approached in healthcare as a deeply personal and culturally diverse dimension of the human experience.¹³

1.1.6. Secular Humanism (Secularism)

The term secular humanism (or secularism) appears quite frequently in the study of R/S, and it deserves to be properly clarified. Some atheists, agnostics, naturalists, and materialists may express a form of non-religious existential experience that, however, encompasses notions of ethics, morals, and justice common to religions, but without religious or supernatural practice/experience. Some authors define these individuals as spiritual, but not religious.¹⁴

1.1.7. Final Considerations

Efforts from various fields of science have been directed in recent decades to better understand the concepts associated with R/S. Like other areas of health science, R/S has been reviewed and modified over time. R/S has been framed as a necessary tool in the process, especially for those who consider this aspect a central element in their lives.⁴

1.1.8. Second Edition Updates

1.1.8.1. Human Flourishing

The concept of human flourishing has been developed over the last decade, and understanding it is essential to the study of spirituality. It was coined by Tyler VanderWeele as “the relative attainment of a state in which all aspects of a person’s life are good”.¹⁵ This concept represents a comprehensive approach to well-being that goes far beyond narrow measures such as income, specific disease states, or positive affect.¹⁶ The author proposes that human flourishing consists of five main domains: happiness and life satisfaction; physical and mental health; meaning and purpose; character and virtue; and close social relationships.^{17,18} For a more complete assessment, VanderWeele also developed the Secure Flourish Index (SFI), which adds financial and material stability as a sixth domain. Spirituality, as a concept, encompasses only one of the domains of human flourishing (meaning and purpose).¹⁷

1.1.8.2. Praxis and Lived Religion

Praxis and lived religion refer to the real, experiential, and intimate dimensions of people’s religious lives, addressing how religion is actually practiced and experienced in daily life, in contrast to formal doctrines or institutional affiliations. As a multidimensional construct, it encompasses beliefs, rituals, conventions, conceptions of God, ethical implications, mystical experiences, communal or private religious practices, and a sense of transcendent connection.¹⁹

1.1.8.3. Health

The World Health Organization (WHO) defines health as “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.”^{20–22} This definition, established in 1947, represents

a comprehensive and aspirational view of health.^{22,23}

1.1.8.4. Well-being

Well-being is defined as the cognitive and affective evaluation a person makes of their life, including physical health, satisfaction, happiness, and a sense of fulfillment. The WHO defines mental health as “a state of well-being in which the individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”²⁴

1.1.8.5. Quality of Life

The WHO defines quality of life as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns.” It is a broad concept complexly affected by physical health, psychological state, level of independence, social relationships, personal beliefs, and their relationship to salient features of the environment.²⁵

1.1.8.6. Disease and Illness

“Disease” refers to the objective pathological condition diagnosed and treated by physicians, whereas “illness” represents the subjective experience of and response to the disease by patients and the people in their lives.²⁶ Understanding the distinction between illness and disease is a prerequisite for caring for patients with incurable disorders. Even though many chronic conditions are incurable, the discomfort or disability they produce can be substantially modified.²⁷

1.1.8. Second Edition Updates

1.1.8.7. Moral distress, Spiritual Suffering, and Total Pain

Moral distress is defined as psychological suffering resulting from transgressive events or acts that create dissonance within the self due to a rupture or violation of one's value system and existential orientation.²⁸ It is strongly associated with medical errors, burnout, and occupational and personal dysfunction, as well as increased suicidal ideation; it also significantly impacts professional satisfaction and staff retention.²⁹ Spiritual suffering is a personal and transcendental phenomenon characterized by

a profound disruption of existential meaning and personal identity, as well as a deterioration of relational connections. It represents a disturbance in a person's value or belief system, potentially leading to a loss of strength, hope, and a sense of meaning.³⁰

Total pain is a fundamental concept in palliative care introduced by Dame Cicely Saunders, emphasizing the multidimensional nature of pain and suffering in patients with advanced illnesses. The spectrum of total pain encompasses four basic components: physical, psychological, social, and spiritual.³¹

1.1.9. Supplementary/Interactive Material

This book includes additional interactive material (scientific, institutional, informative, etc.) that will allow for deeper exploration and learning about the topics covered in this chapter. The content is available on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible online via the link and/or QR code below:

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Chapter 1.2

Biological Aspects of Religiosity and Spirituality



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1.2.1. Introduction

Over the last few decades, numerous studies have been published providing a theoretical framework for the mechanisms through which Religiosity/Spirituality (R/S) acts upon the body's biochemical and physiological pathways. These studies are based on the direct measurement of biomarkers in populations identified as religious/spiritualized or otherwise, as well as indirect measures evaluating religious behavior and its clinical impacts. Consequently, it is possible to differentiate the mechanisms associated with physical and mental health, which are also subject to behavioral, social, and cultural influences.

The objective of this chapter is to clarify the primary pathways and potential mechanisms of R/S action and its impacts on cardiovascular health, as well as to highlight the metabolic pathways through which these phenomena may occur, although they are not yet fully understood.

Regarding cardiovascular health, the most extensively studied biomarkers that exhibit a correlation (positive and/or negative) with R/S include: cardiovascular reactivity, heart rate variability, arterial baroreflex sensitivity, systemic inflammation (C-reactive protein, fibrinogen, and interleukins), and stress- and

anti-stress-related hormones.¹⁻³

1.2.2. Autonomic Nervous System Regulation

Cardiovascular reactivity is a term that emerged in the 2010s to express heart rate and blood pressure responses to physical and emotional stress. Subsequent studies demonstrated that individuals exhibiting low cardiovascular reactivity to stress presented, in the long term, a higher risk of CVD, such as coronary artery disease and systemic arterial hypertension.⁴

Regarding cardiovascular reactivity, there is no consensus based on current available scientific evidence concerning R/S and its intervention: studies demonstrate an inverse, direct, or neutral relationship regarding cardiovascular reactivity; in relation to negative religious-spiritual coping (RSC-N), a direct association with the intervention was identified; other studies demonstrated a possible mixed association or even neutrality.^{5,6} These variations may be associated with diverse methodological issues among studies or even the lack of an adequate definition of R/S.⁷⁻¹⁰

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Among the primary biomarkers of cardiovascular reactivity, systemic blood pressure, heart rate, heart rate variability (HRV), and arterial baroreflex sensitivity (ABS) stand out. HRV is associated with autonomic nervous system adaptations to physical or emotional stress and can be quantified in complementary exams. It is known that reduced HRV is associated with a worse long-term cardiovascular prognosis, representing poor adaptation to physical or emotional demands.¹¹ Several studies demonstrate a positive relationship between R/S interventions and increased HRV. Interventions such as music therapy, Islamic spiritual practices, and meditation have shown favorable results and positive outcomes. However, some studies failed to demonstrate this positivity, maintaining a neutral effect.^{11–14}

ABS is another marker of neurohormonal health, and its reduction is associated with increased cardiovascular risk. Many studies on heart failure and systemic arterial hypertension have sought to develop interventions to increase its sensitivity.^{15,16} One such R/S intervention studied the effects of the 'Hail Mary' prayer practice, breathing techniques, and the repetition of Buddhist mantras, identifying an improvement in ABS associated with increased HRV, better autonomic system control, and, consequently, a higher probability of cardiovascular risk reduction.¹⁷

1.2.3. Systemic Inflammation

R/S interventions and/or religious/spiritualized behaviors have been studied through the mediation of inflammatory pathways. The role of inflammation in the development of CVD, such as arterial hypertension and atherosclerosis, as well as in diabetes, is well-established. In general terms, high levels of inflammatory biomarkers are associated with increased cardiovascular risk (CVR), the primary ones addressed being: interleukins (IL), C-reactive protein, and fibrinogen.¹⁸

1.2.3.1. Interleukins

The most extensively researched

interleukin in health is IL-6, being considered the most significant in diseases in general. This biomarker is elevated during the occurrence of physical and mental stress, mediating other pro-inflammatory biomarkers. However, its high concentration does not always denote a pro-inflammatory state, necessitating cautious interpretation. Most studies have found an inverse relationship between IL-6 and religious and spiritual involvement.^{3,19}

Interleukins IL-4 and IL-10 may also vary according to religious and spiritual interventions. A randomized clinical trial (RCT) involving 59 elderly individuals (mean age 87±8 years) that compared the intervention of listening to chaplain sermons for 30 minutes/day over 20 months demonstrated that the IL-10/IL-6 ratio was higher in those who listened to the sermons.²⁰

Another RCT evaluating 63 Chinese women aged 35 to 50 (mean age 43.89 years) with an increased risk of CVD, who underwent a Tai Chi intervention for 8 weeks, aimed to assess the biobehavioral impacts associated with CVD risk. At the end of the intervention, a significant reduction in pro-inflammatory cytokines (IL-4 and IL-8), tumor necrosis factor, and interferon-gamma was observed, associated with a reduction in fatigue and perceived stress, and an increase in mindfulness, self-compassion, and spirituality.²¹

However, in the context of cardiac surgery, some studies found elevated concentrations of IL-6 in patients with emotional stress of religious origin, which persisted even after the spiritual intervention.^{2,22}

1.2.3.2. C-Reactive Protein and Fibrinogen

C-reactive protein (CRP) is known to be associated with increased CVR, and most studies point to an inverse relationship between R/S and serum CRP levels.^{23,24}

A cross-sectional study involving 653 adults over 50 years of age (mean age 66.1 ± 13.5 years) who had experienced stressful life events sought to evaluate the impact of religious involvement and religious/spiritual practices (Re/Sp), demonstrating that adults who frequently participated in these practices presented lower CRP levels and a lower

probability (~36%) of having elevated CRP.²⁵

Another observational study analyzing CRP levels in 4,734 elderly residents in the United States (mean age 68.3 ± 10.1 years) identified that intrinsic religiosity acted as a negative moderator for stress and CRP levels, and that higher metrics of intrinsic religiosity were associated with lower levels of these variables.²⁶

Fibrinogen plays a central role in the coagulation cascade and acts in the mechanisms of atherosclerosis, exhibiting behavior similar to those found in CRP. However, data regarding fibrinogen and R/S are less robust. An observational study evaluating the relationship between these variables demonstrated that the frequency of religious practices has an inverse relationship with the fibrinogen level.^{27,28}

1.2.4. Stress and Anti-Stress Hormones

Stress hormones vary according to the circumstances of production, timing of release, serum maintenance, and/or interruption. They are interconnected with numerous biochemical pathways that act on the immunological, inflammatory, and cardiovascular responses, as well as surgical stress. Among the primary hormones with cardiovascular impacts associated with R/S, the following will be addressed: cortisol, catecholamines, and oxytocin (Figure 1).⁴

According to Koenig et al., individuals who experience positive emotions tend to present lower levels of stress hormones and higher levels of anti-stress hormones and, in general terms, most studies associate religious involvement with emotions of well-being, happiness, personal satisfaction, optimism, etc. However, an increase in stress hormone levels can be observed in individuals who struggle to maintain or sustain the traditional values emphasized by religions, leading to negative RSC such as guilt, shame, and self-deprecation.¹

1.2.4.1. Cortisol and Catecholamines

In a systematic review/meta-analysis that selected 80 cross-sectional and prospective

studies with a number of participants (N) of 26,167, conducted to evaluate the impacts of diurnal cortisol slope on mental and physical health, 12 frequent outcomes were identified in patients with a reduced slope, the primary ones being: obesity, inflammation, immunity, and increased mortality.²⁹

A prospective study in the United States, including 1,470 participants (mean age 47.66 ± 12.04 years), collected salivary cortisol samples and compared them with metrics of religious participation, RSC, social coping, and community support, measured at two points over a 10-year follow-up. It was observed that higher religious frequency was associated with a steeper cortisol slope and a reduction in religious/existential conflicts, independent of social coping and community support.³⁰

Another pilot cross-sectional study with the participation of 50 Austrian students (mean age 23 ± 4 years; 14% atheists, 36% agnostics, 20% religious, and 30% self-declared spiritualized) sought to compare R/S metrics, before and after a standardized social stress test, with salivary cortisol results and measurements of blood pressure (BP) and heart rate (HR). It was identified that religious and agnostic individuals had better cardiovascular responses (absence of significant variation in BP and HR) and salivary cortisol responses than atheists and spiritualized individuals. This result was also observed in those expressing higher R/S metrics, with the exception of atheists.³¹

A systematic review and meta-analysis of 42 published randomized clinical trials (N=1,944) up to December 2016, comparing the effect of yoga practices with or without mindfulness techniques on physiological measures associated with stress, identified a reduction in serum cortisol: upon awakening by 1.51 nmol/L (95% CI: -2.83 to -0.19; I^2 : 0%); in the afternoon by 0.60 nmol/L (95% CI: -1.13 to -0.06; I^2 : 0%); and in the evening by 0.88 (95% CI: -1.75 to -0.01; I^2 : 14.95%).³²

In a systematic review of research published until 2010, 29 studies examining the relationship between cortisol and R/S involvement/interventions were selected. Of these, 66% reported an inverse relationship between cortisol and involvement/interventions, while others demonstrated that after interventions, an

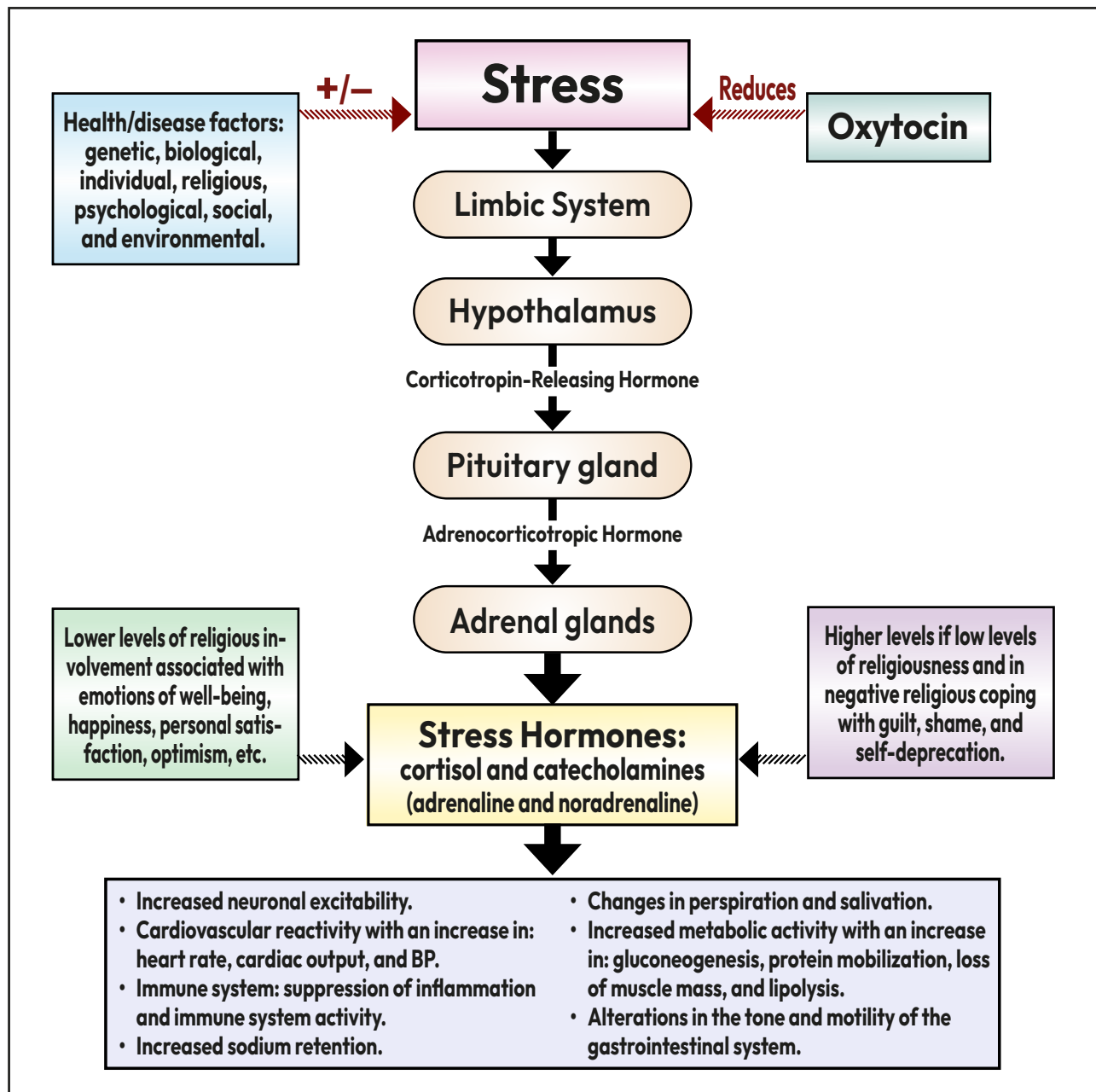


Figure 1 — Hypothalamic-pituitary-adrenal axis response to stress, influencing factors on response levels, and hormonal effects.^{1,4} BP: blood pressure.

initial reduction occurred followed by an increase in daytime release. A limitation of this review is that most studies had small sample sizes ($N < 100$).¹

Current scientific evidence does not characterize a causal relationship between cortisol dosage and cardiovascular outcomes. There is significant methodological variability among studies, the methods, and the timing of measurements, hindering the interpretation of cortisol dosage results and religious/spiritual involvement.¹

Regarding catecholamines, studies have

small sample sizes and few have sought to specifically evaluate the associations between them and R/S. However, it is important to note that there is slight evidence that high levels of R/S are associated with lower levels of catecholamines.¹

1.2.4.2. Oxytocin

Oxytocin has been shown to be a potent hormone associated with anxiety suppression, a mediator of stress hormones, and human

resilience. In the context of the association between R/S and oxytocin, its high levels may induce greater religious and spiritual behavior and vice versa. However, it is not yet possible to state whether there is a direct or indirect causal relationship, but most studies (observational and experimental) point to a positive association between the two.³³

Two RCTs sought to study the impact of intranasal oxytocin spray injection in individuals who were questioned about the importance of R/S, using validated scales. Changes in the scale responses were evaluated, as well as the modification in the effect of genes associated with oxytocin absorption according to the individuals' genotype. In the first study, it was observed that this intervention increased the metrics of the scales, and individuals who expressed polymorphisms linked to oxytocin absorption had better responses compared to those who did not have such a genotype.³⁴

However, in the second study, the injection did not modify the response of the scales, not even when compared to the associated genotypes, since in those with low absorption scores, oxytocin significantly increased the responses in relation to R/S, while in those with high scores, a reduction in the R/S ratio was observed in relation to the placebo, nullifying the outcomes.³⁵

A cross-sectional study with the participation of 317 healthy Japanese adults investigated the relationship between serum oxytocin levels and beliefs in "life after death," assessed by a four-item questionnaire. Although not specified in the study, the main religions in Japan are Shintoism and Buddhism. The expected results would be high levels of oxytocin associated with the phenomenon of reestablishing the relationship between people or strengthening bonds. However, the study observed that these beliefs were associated with lower levels of oxytocin. The authors attributed this behavior to the fact that older people may have less desire for social interaction and greater hope for the return of bonds after death.³⁶

Although they are hypotheses, these three studies show how cultural, social, and religious issues can modify Re/Sp beliefs and oxytocin production. In the first two studies, these impacts depended on gene expression and modulation.

1.2.5. Final Considerations

There are many mechanisms by which R/S interacts in biochemical systems and pathways. They are continuously investigated, both experimentally and clinically, and the results already obtained encourage the continuation of research and the creation/refinement of protocols for the application of their findings in medical practice.¹

In addition, religious and spiritual involvement also involves behavioral and psychological changes, ethnic and age variations, and the influence of the social and community environment. All these factors reinforce the need for additional efforts to better understand it, including its clinical impacts.

1.2.6. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Chapter 1.3

Religious/Spiritual Beliefs of the Population and Brazilian Physicians



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1.3.1. Religious/Spiritual Beliefs of the Brazilian Population

One of the greatest challenges in the field of religiosity, spirituality, and health consists of understanding how the religious/spiritual (Re/Se) beliefs of patients and physicians can interfere with clinical practice and identifying the challenges arising from this understanding. Given the vast body of evidence currently available, it is necessary to debate how physicians utilize — or fail to utilize — these variables to their advantage and which factors may interfere with this approach.

Preliminary results regarding religion from the 2022 census by the Brazilian Institute of Geography and Statistics (IBGE) demonstrate that only 9.28% of the Brazilian population declared having no religion, while approximately 90.45% of the population has one or more religious affiliations, of which 83.6% are Christian (Figure 1). The primary religions professed are: Roman Catholic (56.75%), Evangelical (26.85%), and Spiritist (1.84%). However, more than 20 distinct creeds were identified in this survey, denoting broad religious diversity within the population.¹

A cross-sectional study conducted in Brazil

through interviews in 143 cities (2,346 adults aged 18 or older and 661 adolescents aged 14 to 17; 52.4% women) sought to investigate three dimensions of religiosity (affiliation, intrinsic religiosity, and religious frequency) and their relationship with sociodemographic variables. Only 5% of participants declared having no religion, 83% considered religion to be very important in their lives, and 37% attended religious services at least once a week.²

Compared to other countries, it was observed that the female sex and older age groups (in this study, over 50 years) were associated with higher levels of subjective/intrinsic and organizational religiosity. Regarding the United States, these data demonstrated that Brazilians possessed higher religiosity in the dimensions researched. Other sociodemographic variables showed no association, including the lower socioeconomic group, which was previously believed to present higher levels.^{2,3}

Another relevant datum is the high degree of religious pluralism in Brazil, which can be defined as the recognition and coexistence of two or more self-declared religious affiliations by a single individual and its practical implications.⁴

A cross-sectional study interviewing 1,169 Brazilians via an online questionnaire (mean age 40.7±15.3 years; 52% women) identified that

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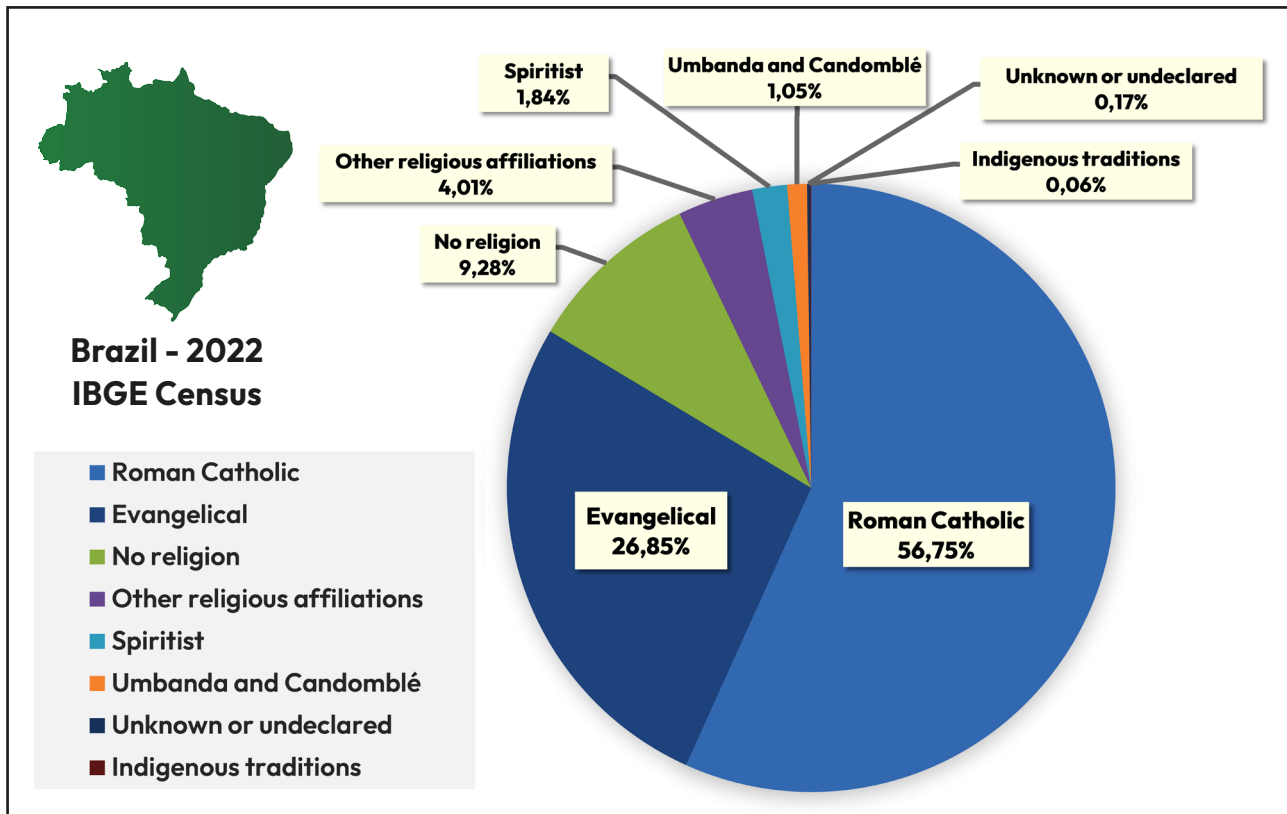


Figure 1 — Distribution of major religious groups in the Brazilian population. Source: 2022 Census of the Brazilian Institute of Geography and Statistics (IBGE).⁷

58% had only one religious affiliation, 27.7% had multiple affiliations, and 12.3% had none. Among individuals with multiple affiliations, Catholicism was the primary affiliation (44.1%), followed by Protestantism (19.1%) and Spiritism (8.6%). Regarding secondary affiliation, Catholicism was the most common (13.1%), followed by Spiritism (8.3%), Protestantism (8.0%), and Spiritualism (4.7%). Comparing the groups regarding mental health levels, religiosity, and quality of life using questionnaires validated for Brazilian Portuguese, individuals with only one religious affiliation had significantly better mental health and quality of life results compared to those with multiple or no affiliations. Comparing the “no affiliation” group with the “multiple affiliations” group, the latter possessed better levels of optimism and happiness.⁵

When data on Brazilian religious pluralism are compared with other countries, Brazil has a higher level of pluralism relative to the Netherlands (17%) and the United States (10%). However, further investigation is necessary to understand this finding.⁵⁻⁷

Another way to evaluate the impact of Re/Sp beliefs is through the individual or collective

identification of having had Re/Sp experiences, such as: feeling the presence of a higher being, intuition for decision-making, visions of spiritual beings, and a sense of connection with the whole. In Brazil and worldwide, there are many reports that these experiences are neglected in medical practice and, at times, interpreted as pathological. A cross-sectional study with 1,053 Brazilians (mean age 40.8 years; 52.2% women) identified that 92% had experienced at least one Re/Sp experience throughout their lives. The most frequently reported experiences were: “oneness with God or something higher than oneself” (26.8%); “intuition about something” (18.6%); “using intuition to make a decision” (18.0%); and “feeling of union with everything in the universe” (16.3%). Nearly half of the individuals (47.5%) reported frequently experiencing at least one of the 16 listed experiences. Notably, these experiences were not associated with socioeconomic level, employability, education, ethnicity, or altered psychic states.^{8,9}

These results point toward an inverse association with what is disseminated by some currents of medical thought that still

insist on reducing the understanding of these experiences — which are more common than imagined — to matters of a pathological nature or low socioeconomic and cognitive levels. The Brazilian Association of Psychiatry has been reformulating this understanding in recent decades, proposing diagnostic changes in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) under the category of “Religious and Spiritual Problems.”^{10,11}

On the other hand, this datum also suggests that, beyond religious affiliation in the Brazilian population, Re/Sp experiences are impactful in the patient’s life and require more study aiming for their incorporation into clinical practice.

1.3.2. Religious/Spiritual Beliefs of Brazilian Physicians

Observational studies indicate that the religious values of physicians influence clinical practice. The reasons why this influence exists may be associated with cultural, social, and educational factors, among others, which can become a barrier or an ally in the process of addressing R/S in patients.¹²

An international cross-sectional study investigating 611 physicians (194 Brazilians, 295 Indians, 122 Indonesians) regarding religious affiliation and beliefs, as well as the understanding of Re/Sp influence on health, identified that among Brazilian physicians: the majority were Christian (94.9%), followed by those with no affiliation (5.1%), and the majority sought divine strength, support, and guidance (80.4%). Regarding the investigation of R/S issues in clinical practice, most Brazilian physicians (60.3%) had questioned their patients at least once, but rarely did so routinely (88.9%), while the vast majority (95.9%) reported never having had training for this approach. Compared to other studied countries: Indonesian physicians were more religious and more likely to address these issues with their patients; Brazilians considered their influence on health more; and both Brazilians and Indonesians believed it was appropriate to address these issues in clinical practice.¹³

A meta-analysis of studies conducted in

seven countries with 3,342 physicians, searching to compare the degree of religiosity and its influence on clinical practice, identified that the religiosity level of Brazilians was 9.76, above the general average (9.50), being higher than that of Germans and Danes, and lower than those from the United States, India, Austria, and Indonesia. However, Brazilians presented one of the lowest levels of influence of their own beliefs on medical practice (36% judged it influenced, against an average of 50%). This finding was justified by the authors due to a higher level of intrinsic religiosity. Another relevant information is that higher levels of belief in the influence of R/S were associated with the degree of religiosity of the countries.¹⁴

A multicenter observational study at seven Brazilian universities evaluating the attitudes, knowledge, and experiences of 879 resident physicians (mean age 28.09 ± 3.35 years) regarding R/S and its influence on clinical practice observed that: the majority believed in a higher power (88.0%); sought strength, support, and guidance in God (81.0%); believed in life after death (62.8%); had a religious or spiritual experience that changed their life (56.4%); considered themselves highly or moderately spiritualized (69.8%); and highly or moderately religious (57.5%). Only 22.1% attended religious services at least once a week, and 38.7% dedicated time to religious activities.¹⁵

Regarding the approach in clinical practice: the majority (72.2%) questioned patients or family members about Re/Sp issues; the majority (85.6%) did not do this regularly; and the associated contexts were terminality (52.2%), crisis in the face of diagnosis (29.7%), and distress from anxiety/depression (25.8%). These data reinforce that the approach was limited to existential crisis situations. The main reported barriers were the need to maintain neutrality, fear of offending patients, and lack of time. Variables such as gender, clinical specialties, formal R/S training, and high R/S metrics were correlated with greater discussion and approach to the theme. Compared to data from studies in other countries, the higher R/S of Brazilian resident physicians differs from that observed in physicians from European countries such as Germany and Denmark, but is similar to those in the US and India.¹⁴⁻¹⁶

1.3.3. Incorporation of Religiosity/Spirituality in Medical Education

The data presented in the previous topics highlight the known gap between the desire and importance assigned by patients and physicians to this approach and its real application in clinical practice. An observational study conducted with 3,630 Brazilian medical students identified that the most common reasons for not addressing R/S issues in clinical practice were “fear of imposing religious beliefs” (47.5%) and “fear of offending patients” (35.8%). These data demonstrate the lack of training and qualification for medical students on this subject and how prejudices still guide clinical practice.¹⁷

A study conducted in 2012, searching to survey the prevalence of R/S themes in medical schools, identified that only 40% had this theme in the curriculum, with 10.4% in specific subjects (4.6% core curriculum and 5.8% elective), and the remainder in fragmented subjects.¹⁸

Another useful study to evaluate the evolution of this prevalence, published in 2023 based on responses from representatives of 150 Brazilian medical schools, identified a substantial increase in the insertion of the R/S theme into medical curricula: a total of 122 schools (81.3%) presented some R/S content in the curriculum; 50 (33.3%) offered mandatory or elective courses addressing only R/S; 87 (58.0%) had other courses addressing the theme; and 60 (40%) had student-run initiatives focused on this area. However, only 8 (5.3%) included R/S in a more structured manner, and the curriculum of only 2 (1.3%) presented longitudinal R/S insertion at different moments of training.¹⁹

Despite the significant progress, this same research demonstrated that most of the content is delivered in a fragmented way with single exposures throughout the entire curriculum, which does not favor adequate learning.¹⁹

It is noteworthy that the Brazilian situation requires further investigation and a deeper understanding of the reasons why the R/S education levels of other countries have not been reached: German-speaking countries (62%), the United Kingdom (59%), and the United States (90%).^{20–22}

1.3.4. Final Considerations

The data presented demonstrate the religious plurality of the Brazilian population, with a predominance of Christianity, and how Re/Sp experiences are present in their lives. Similarly, the same occurs among medical professionals in Brazil; however, challenges remain to be overcome regarding the application of available evidence, the effectiveness of teaching, and adoption in clinical practice. Although it is the desire of most physicians to use this approach, educational and cultural barriers must be overcome.¹⁶

Despite the positioning of medical entities and specialty societies in recent years regarding this approach, it is clear how much progress is still needed so that the Re/Sp needs of patients are understood and managed in an ethical and scientific manner. Only then will it be possible to ensure integral medical assistance in its broadest sense.^{23–25}

1.3.5. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Chapter 1.4

Objectives of Addressing Religiosity and Spirituality in Medical Practice

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1.4.1. Objectives of Religiosity/Spirituality Assessment

To understand the importance of addressing religiosity/spirituality (R/S) in medical practice, it is necessary to examine foundational data and concepts of medicine. Various studies have demonstrated that individuals who place great importance on R/S experience better quality of life, fewer emotional disorders, lower rates of suicide attempts, better social support, lower rates of burnout, the adoption of healthier lifestyles, and are generally more adherent to medical treatments.¹⁻⁷ In addition to these findings, well-conducted studies have evidenced that R/S even impacts mortality, both in religious and secularized societies.⁸⁻¹⁰

Since R/S has been associated with all these benefits for physical, mental, and social health, it becomes imperative for the healthcare professional to seek an understanding of the patient's relationship with the religious and spiritual sphere, their beliefs, and the importance these hold in coping with illness. Physicians and healthcare institutions must work together to provide care to patients of different religious and spiritual cultures,

which are associated with positive health consequences, resulting in higher quality medical care and greater patient satisfaction with the care received. However, when this collaborative work does not occur and/or the physician-patient relationship is inadequate, a reduction in satisfaction with care is observed, consequently leading to a worsening of health outcomes.¹¹

Knowledge derived from the assessment of R/S cannot merely be information for recording in the medical record without a practical destination. When evaluating this dimension, one must understand how it can be used for the benefit of the patient, so that the favorable results of studies are reproduced in the individual. Saint Bernard of Clairvaux offers a very appropriate reflection on this theme: "For there are those who wish to know only for the purpose of knowing; and it is a shameful curiosity. And there are those who wish to know so that they themselves may be known; and it is a shameful vanity. There are also those who want to know in order to sell their knowledge, for example, for money or honors; and it is a shameful gain. But there are also those who wish to know in order to edify; and it is charity. And likewise, those who wish to know so that they may be edified; and it is prudence."¹²

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The Code of Medical Ethics, CFM Resolution No. 2,217, cites among its fundamental principles that “the target of all medical attention is the health of the human being, for whose benefit [the physician] shall act with maximum zeal and the best of their professional capacity.” Therefore, it is possible to deduce, by philosophical and ethical principles, that the objective of scientific knowledge necessarily involves action — and, indeed, compassion — in professional practice.¹³

In addition to the aforementioned factors, medical literature has demonstrated that patients often wish to be approached regarding their religious and/or spiritual convictions. To illustrate this evidence, a study interviewing 456 North American individuals from three different states demonstrated that 66% of participants think that physicians should be aware of their religious and spiritual beliefs. The manifest desire to undergo a spiritual investigation varied from 33% among outpatients to 40% in hospitalized patients and 70% in those at risk of death.¹⁴ Another study addressing similar questions in 921 North American participants observed that 63% would wish to be questioned by physicians about their spiritual beliefs depending on the nature of the situation, 20% would always like this approach, and 17% stated they never wanted to be questioned about this aspect.¹⁵

Despite it being well-known that a large proportion of patients desire to talk about their relationship with religion and/or the spiritual plane, a systematic review that included 20,044 physicians found that only 34% of respondents practiced such an act during the anamnesis.¹⁶ In Brazil, the situation appears no different, as a study demonstrated that only 35% of Brazilian physicians address this theme with patients.¹⁷ These data, besides being concerning, highlight how distant medical practice remains from the particular demands of its target audience, illustrating the need to adjust the approach, making it broader and more integral within professional experience.

1.4.2. Evolution of the Concept of Health and Disease

To define the objectives of R/S in medical practice and how to achieve them,

it is necessary to understand the conceptual evolution of health, disease, and illness in the context of Brazilian medicine. Until the mid-1990s, disease was considered a biological event. Thus, anatomical, physiological, or biochemical alterations resulted in structural and/or functional abnormalities of organs, systems, or the body. On the other hand, the concept of illness referred to a human, but non-biological, phenomenon. It concerned the human being's experience with the infirmity — that is, the discomfort and psychic alterations resulting from the physical ailment. Therefore, illness represented personal, interpersonal, and cultural reactions to the disease.¹⁸

In learning these concepts, one understands the lesson that many senior medical professors always insisted on reinforcing: physicians treat patients, not diseases. This concern is longstanding, predating the time when spirituality was widely accepted as scientific. Mário López observed at the end of the 20th century that “inattention toward the disease or the illness results in different types of medicine that share the fact of both being deficient.” He adds that “with the advances in the field of science and medical technology, there is a tendency toward the predominance of biomedicine to the detriment of concern for the illness.”¹⁹

Currently, the World Health Organization (WHO) understands disease as a set of signs and symptoms that alter the normal state of health, and its concept of health expands this understanding to “a state of complete physical, mental, social, and spiritual well-being,” considering the dimension of human experience in its definition.²⁰ The process of falling ill, and therefore the absence of full health, is associated with existential suffering, making it necessary to reclaim the classical understanding of illness to evaluate the patient integrally, rather than just the disease.

To demonstrate the objectives of the R/S approach in the patient, an illustrative hypothetical clinical case will be described in the next topic.

1.4.3. Clinical Case

Ana Maria, 36 years, and Pedro, 40 years, discover during the hospitalization for

bronchopneumonia of their daughter Laura, 3 years, that the child has an ostium secundum atrial septal defect and requires surgical treatment. During the consultation with the pediatric cardiologist, they were informed of the risk that, if left untreated, the child would progress to right heart failure, cardiac arrhythmia, pulmonary hypertension, and early death. They were also warned that the risk of perioperative death is approximately 0.3–0.4%.

Shaken by the news, the parents seek a second opinion from another pediatric cardiologist, Dr. João. After hearing the history of the child and the parents, analyzing the results of the complementary diagnostic workup, and performing a detailed physical examination of the young patient, Dr. João sits at the table and asks other questions: “How are you dealing with this news?”; “What is your greatest fear regarding the treatment?”; “How have the aunts, uncles, and grandparents been handling this news?”; “Is the financial issue a problem for you, or must the procedure, if performed, be through the *Sistema Único de Saúde* (Brazilian public health system - SUS)?”; “Has this brought you closer together or has it been a source of discord?”

The couple’s first reaction was surprise, as the first pediatric cardiologist had focused only on the aspects of the disease. With this opening for other information, Dr. João discovered that the diagnosis of the child’s heart disease caused, beyond the naturally expected anxiety, an imbalance in the parents’ relationship and an intense fear that their daughter might pass away during surgery.

In the couple’s history, it was noted that the daughter was the result of 12 years of medical infertility treatment for the mother and that the costs were very high, involving the sale of their apartment to cover the expenses. Ana Maria came from a very religious family and considered, until then, that the success of the fertilization was primarily due to the prayers of her parents, relatives, and the faith community she attended.

With the onset of Laura’s problem, Ana Maria became confused and questioned whether this might be a divine punishment for insisting so much on having a baby. On the other hand, Pedro had not cared about religious or spiritual matters since age 14, when his father — previously a very

strict religious man — abandoned the family and never returned. However, he remembered how his mother handled the separation with resilience and, despite the disappointment, never abandoned her faith. Pedro was terrified of the possibility of his daughter’s death and was sincerely considering reviewing his concepts to ease his distress.

With these R/S data in hand and properly recorded in the medical record, Dr. João was then able to better understand the parents’ doubts, allowing him to use couple-centered communication, explaining the risks and placing more emphasis on the benefits. He explained that, although surgery was indicated, the intervention was not urgent. The physician was able to understand how the faith of that couple, even at different stages, could be used positively and, respectfully, helped them face the negative aspects linked to R/S.

The family made three visits to Dr. João’s office before the decision to proceed with the child’s surgical treatment. At the end of this period, the conflict that had been driving the couple apart was resolved, and they became more mutually connected.

During the hospitalization period, the family was accompanied by a hospital chaplaincy service that increased their sense of support, reduced stress, and improved well-being regarding the daughter’s surgical situation. The surgery was successful. Since then, Ana Maria began dedicating herself to a hospital chaplaincy service, and Pedro, although remaining unaffiliated with any religion, began participating as a volunteer in an association that cares for children abandoned by their families.

1.4.4. Discussion of the Clinical Case

Although the presented clinical case is hypothetical, it corresponds to a situation frequently observed in clinical practice and provides some interesting lessons and reflections:

It must be reinforced that having knowledge in itself that is not applied is useless. According to Christian tradition, “it is like a lamp on a dark night placed under a bed; its light will be of no benefit to people.” Paraphrasing Confucius, “to know what is right and not to do it is a lack

of courage.” Unlike the first professional, Dr. João insisted on spending more time in the consultation to understand the psychic, social, and spiritual aspects of the child’s parents. He understood not only the disease but also the consequences the family was facing. His years of clinical practice and scientific knowledge made him understand the benefits of R/S in various areas of human life and dedicate time to the use of this tool.

Establishing the role of beliefs and/or non-beliefs and taking a previous personal history of how this favors or hinders coping with diseases allows this information to be used for the benefit of patients. Dr. João did not leave the information merely recorded in the patient’s medical record. On the contrary, understanding the parents’ emotional situation as well as each one’s relationship with the transcendent gave him the tools to build a firm physician-patient relationship — in fact, a physician-patient-family relationship — and create means to lead them to make the decision for the child rationally, without interfering with parental autonomy. This conduct demonstrated wisdom, empathy, compassion, and medical art, and differed from that of the first professional, who only provided correct scientific information about the treatment but forgot the need for attention regarding the family’s suffering.

Clinical and R/S investigations are not, and cannot be, in vain. They must be motivated so that the theoretical knowledge acquired in the anamnesis is, if possible, put into practice, facilitating medical decision-making, treatment adherence, better patient outcomes, and health promotion.

The conducts and interventions, as well as the individuals and protocols, will be duly addressed in the chapters of this book.

1.4.5. Final Considerations

The Code of Medical Ethics, in its fundamental principles, states that “it is the physician’s responsibility to continuously improve their knowledge and use the best of scientific progress for the benefit of the patient and society.”¹³ Within this vision, using available knowledge regarding the

patient’s R/S approach is not only in line with the principles of professional practice but also aligns with the most recent evidence on the importance of this element for health in its broadest and most current concept. The next and primary step to be taken is to “get to work,” implementing possible R/S interventions/care, moving from acquired knowledge to a concrete advancement in daily humanized practice.

1.4.6. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Section 2:

Assessment Instruments and Ethical Issues in Religiosity and Spirituality



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Chapter 2.1

Methods for Assessing Religiosity and Spirituality in Scientific Research



Chapter available
in Portuguese.

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Glauco Franco Santana
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2.1.1. Introduction

For several centuries, the positive relationship between religiosity and health was considered an unquestionable truth across the most diverse cultures and religions.¹ However, starting in the 19th century, the study of the intersection of religiosity and spirituality (R/S) began.² Modern science demands that the scientific method be applied to validate R/S findings through experimentation and observation, excluding subjective aspects and solidifying the results obtained and their rationale. Thus, the aim was to develop metrics and methodologies to determine whether this relationship was in fact accurate or the result of an analysis based on concepts and/or biases, as well as on the desires of individuals and the community.

2.1.2. Methods for Assessing Religiosity and Spirituality in Research

There are three basic measurement methods to assess R/S involvement:

quantitative, qualitative, and mixed (quantitative-qualitative).³

The quantitative method is characterized by the formulation of prior hypotheses and systematic techniques aimed at causal explanations of the phenomena studied, restricted to the scope of objective measurement through the epidemiological method of quantification. Commonly, a questionnaire consisting of closed-ended questions (previously established and validated) is used, making data processing fast and simple, allowing for the quantification and classification of information for subsequent analysis. Self-administered scales are psychometrically validated and are probably the most common way they are utilized due to their ease of use, low cost, and minimal time requirement.^{3,4}

Examples of subjects commonly valued in this type of R/S approach include: frequency, incidence, and prevalence of the study variable; associated risk factors; quality of life; and participants' beliefs and attitudes. However, the quantitative method is restricted by its intrinsic characteristic of superficiality in investigating complex constructs due to methodological limitations: a limited number of questions that can be asked; inability to

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measure all possible confounding variables; cross-sectional nature, which prevents evaluating long-term health impact, etc.^{3,4}

The qualitative approach, on the other hand, analyzes and interprets attitudes, beliefs, and values that could rarely be explained numerically, allowing for a deeper exploration of subjectivity and symbolism. In this approach, the researcher asks a series of questions and makes observations during an interview. Instead of participants answering questions by marking responses on a numerical scale, they provide full, detailed, and in-depth answers or texts.^{3,4}

Examples of subjects in the qualitative approach include: meanings, significations, and resignifications; psychic and social representations; life experiences; metaphors; and stigmas.⁵ However, concerns regarding the subjective nature of the collected data and the researcher's direct participation in recording responses raise doubts about the partiality and generalizability of the results. For these reasons, qualitative research rarely receives the same credibility as quantitative research.³

Finally, mixed assessment involves both quantitative and qualitative components. In this model, researchers can objectively identify correlations and relationships using quantitative methods while simultaneously collecting detailed explanations from participants, helping to understand how these relationships emerged.⁶

Controversies exist regarding the integration of quantitative and qualitative methods. Some authors argue that such a mixed assessment is impossible, as the methods are based on divergent epistemologies that cannot be reconciled. However, others conceive this possibility by identifying connections between the methods and by focusing on the same phenomena, finding a limit only in the face of the magnitude of human subjectivity.⁷

One of the relevant points in the process of reading and interpreting an article is the evaluation of the appropriateness of the method used relative to the research hypothesis or question, considering that this can compromise the quality and veracity of the findings.⁸

2.1.3. Questionnaires and Scales of Religiosity and Spirituality in Research

Traditionally, questionnaires and scales used in research are developed from pre-established hypotheses by the researcher. The components normally used are numerical scales and/or lists of words/options, aiming to obtain positive/negative responses from the interviewee. They must be previously validated (in a pilot study) and always be in the language of the interviewees/participants.^{9,10}

Data collection via scales can be administered in several ways:³

Self-assessment: performed by the individual/participant themselves by answering the questionnaire without third-party assistance.

By assessment: involving the interviewer's general judgment and interpretation of information collected regarding the participant's subjective responses.

By assessment and general judgment: made by the interviewer, which depends to some extent on the participant's subjective responses but also on the interpretation of the collected information.

Combined method: administration involving a combination of self-assessments and interviewer assessments.

When assessing religiosity in research, variables are identified that are important for measuring the cognitive, behavioral, and religious characteristics of the individual. The following variables are cited: religious affiliation and non-affiliation; frequency of participation in organizational religious activity; frequency of prayer; reading of religious/spiritual literature; importance of religion to the interviewee; financial donation to religious groups; coping; intrinsic and extrinsic religious motivation; commitment to religious obligations; history, attachment, and religious well-being; religious support received and provided; questions and doubts regarding religion; and religious conflicts.³

With regard to the assessment of spirituality, we can cite a few items from the Spiritual Needs Assessment for Patients

(SNAP) questionnaire, such as: sharing thoughts and feelings with close people; concerns about family; meaning of the illness experience; hope, fears, meditation, or prayer practice; relationship with the transcendental/divine; participation in a community of spiritual beliefs; reflection on death and peace of mind; resentments among family or friends; forgiveness; decisions regarding the appropriateness of medical treatment to one's spiritual or religious beliefs; desire for a visit from a religious leader or member of one's religious community; request for a religious ritual (chants, lighting candles or incense, anointing, communion, prayer, or passe); and request for spiritual texts.^{11,12}

2.1.4. Key Factors That Influence the Results of Surveys

Attention must be paid to the types of scales being used in scientific research. When conducting a quantitative study, it is essential that the measures of independent variables (such as R/S) do not include the outcomes they are expecting to correlate with (for example, mental, social, or physical health). When this principle is violated, the resulting associations will be “tautological” in nature — that is, the correlation result will refer to data obtained by itself, generating biased and uninterpretable results. The approach to spirituality in research will require restricting the broad and inclusive definition of spirituality used in clinical practice, including the patients' own perceptions.⁸

One situation that must be mentioned is the phenomenon called confirmation bias, which affects every human being, including scientists, to varying degrees. It is a cognitive flaw related to selective perception that disregards anything that potentially contradicts it. This phenomenon demonstrates the human capacity to reinforce one's own beliefs. It occurs when an individual answers questionnaires with the assistance and/or participation of an interviewer.⁹

Even when an individual performs a self-assessment, confirmation bias can still occur, as people — including researchers — have

a natural inclination to: seek information that confirms their existing beliefs; interpret ambiguous information to support their beliefs; and more easily remember information that confirms them.

Researchers may unconsciously: select participants who tend to confirm their hypotheses, even in studies not involving interviewers (e.g., secondary data analysis; questionnaires made available through only one form — mail — that would reach more people likely to respond positively); overestimate the objectivity of their decisions and interpretations (e.g., the researcher interpreting ambiguous results to favor their initial hypotheses); perform selective exploratory analyses until finding patterns that confirm them (“data dredging”); minimize or rationalize evidence that bias may have influenced research results; and interpret their actions and methodological choices as being correct simply because they led to the expected results, biasedly minimizing results that contradict them.^{13–15}

On this subject, Charles Darwin reflected: “I had also, during many years, followed a golden rule, namely, that whenever a published fact, a new observation or thought came across me, which was opposed to my general results, to make a memorandum of it without fail and at once; for I had found by experience that such facts and thoughts were far more apt to escape from the memory than favorable ones. Owing to this habit, very few objections were raised against my views which I had not at least noticed and attempted to answer.”¹⁶

Another potential confounding factor, which has been sparsely debated, is response bias, in which motivations such as social desirability or the respondent's need to project a favorable/positive self-image may influence, even unintentionally, the results obtained through scales. Certain methodological resources are suggested to reduce this response bias, such as: improvement of scales and metrics; development of new measures; use of self-administered questionnaires; inclusion of a control group with randomized questions; utilization of double-blind protocols; and the use of methodology involving the concealment or dissimulation of the respondents' purposes/

objectives.¹⁷

The issue of under-representative population sampling has also been raised as a potential influencer of results. Historically, it is known that certain minority racial and ethnic groups are generally under-represented in clinical research.¹⁸ Individuals belonging to some of these groups may refuse to participate as research volunteers due to matters related to their religious principles. For example, beliefs such as the conviction that God determines who lives or dies from cancer may discourage African Americans from participating in clinical trials regarding such pathologies.¹⁹

Ideally, different population groups should be proportionally represented in clinical studies, ensuring that results mirror reality without distortions. One possibility for improving engagement/participation is to involve clerical leaders and/or local religious institutions that promote education and health actions among their members, requesting that they encourage participation in the research.²⁰

2.1.5. Reflections on the Methodological Quality of Scientific Studies

Evidence-based medicine (EBM) should be viewed as the integration of clinical expertise with the capacity to rationally analyze and apply available scientific information in patient care. In R/S, the patient's values must also be incorporated into this integration.¹⁹

The majority of research in the field of R/S has been conducted using methodologies of lower scientific evidence (e.g., cross-sectional studies, case reports, descriptive studies, narrative reviews, case-control studies), to the detriment of more robust studies (e.g., cohort studies, systematic reviews, randomized controlled clinical trials). This highlights the need for additional research with robust methods and for readers to understand the limitations of current results based on the design and methodology utilized.²¹

Another point of concern is pseudoscience, defined as invalid or false science involving fads and fallacies in the name of true scientific

research. In medicine, it is represented by any theory or method that falsely or erroneously claims to be scientific but lacks foundation, support, or plausibility. Some indicators of pseudoscience include: an excess of ad hoc hypotheses to explain negative results and justify methodological failures; lack of peer review; emphasis on positive results without considering evidence that refutes them; false dichotomies; dissociation of results from basic/applied research; use of anecdotal evidence; simplistic, mechanistic, and reductionist beliefs and thoughts; use of vague, exaggerated, untestable terms or impressive jargon; non-scientific language seeking to delude the reader; and a tendency to place the burden of error and proof on critics.²²

2.1.6. Final Considerations

Research in R/S has progressed significantly in recent decades toward using more reliable methodologies, standardized terminology, as well as tested and validated scales and questionnaires. However, continuous vigilance regarding the quality of the accessed medical literature is necessary to adopt safe and supported conducts.

The realization of R/S research with high methodological quality and more robust results will allow for the exclusion of poorly designed and/or poorly conducted articles, which are currently still referenced in some publications.

Researchers must value their position and activity, prioritizing methodological quality and not succumbing to the ease of conducting less elaborate, lower complexity, and faster research.

Finally, physicians need to learn more about EBM and always perform critical readings of scientific articles, valuing ethics and quality science.

2.1.7. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative,

etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Chapter 2.2

How to Approach Religiosity and Spirituality in Clinical Practice

Glauco Franco Santana

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2.2.1. Introduction

Based on strong scientific evidence demonstrating that Religiosity/Spirituality (R/S) is a relevant theme in medical practice — supported by medical entities, associations, and other health fields, with positive implications for patient health outcomes — this Chapter will present how to approach a patient's R/S.¹⁻³ This approach has been expressed by patients as necessary, as they believe that information regarding their spiritual beliefs would affect physicians' ability to care for and treat their conditions.⁴

The patient approach should begin with a spiritual anamnesis, a patient-centered assessment instrument performed carefully, serving as an appropriate moment for the expression of their spiritual needs. It should be an opportunity for patients to feel free and secure to share their religious/spiritual beliefs and practices and to indicate what provides sense and meaning to their lives.⁵

The physician must be conscious of whether the information is relevant to the case and, upon initiating the approach, possess the sensitivity to perceive if the questions are being well-received or, conversely, causing

discomfort. Furthermore, the professional must never forget that, in addition to spiritual factors, it is necessary to give equal consideration to the various aspects of the patient's primary complaint, including its physical, mental, and social dimensions. All of these aspects must be analyzed together, so that each one complements the others.⁶

2.2.2. Principles of General Anamnesis

Before discussing the issue of spiritual anamnesis itself, it is necessary to recall some general principles of this instrument/document which, even with the advancement of medical technology, are fundamental for patient care, understanding of their disease, circumstances, and the involved consequences.⁷

López and Laurentys-Medeiros defined, decades ago, that the anamnesis intends not only to identify symptoms of clinical significance but also details regarding: their life, feelings, attitudes, and disposition of spirit; conflicts and habitual psychological defense patterns; their experience and reactions toward previous medical treatments; in addition

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to other components of their health. The authors emphasized that these data cannot be obtained by other diagnostic methods (Chart 1).⁷ Considering the evolution of knowledge, we can add the R/S approach to these topics.

Various reasons can negatively influence the execution of a good consultation, whether related to the patient, the physician, or the healthcare services themselves. A study that interviewed 1,684 physicians identified that the three main causes of patient complaints were: the physician's lack of patience to listen, long waiting times to begin care, and a lack of empathy.⁸ The issue of short consultation times, whether due to unforeseen circumstances during the consultation, professional remuneration issues, or even pressure from healthcare systems (public or private), has been a barrier to the practice of good medical practice.

A study conducted with primary care physicians in 67 countries observed that the average duration of a consultation in Bangladesh was 48 seconds, in Sweden 22.5 minutes, while in Brazil this time varied from 5.5 to 8.3 minutes.⁹ It is very difficult to believe that, with such limited time, it is possible to address the patient's overall condition and complexity, including issues related to R/S and how these

may affect the diagnosis and treatment.¹⁰

The professional needs to perform the medical consultation with genuine interest, utilizing not only their theoretical and practical capacity but also the desire to offer the best of their skills for the patient's benefit, exercising the virtues of compassion, courage, altruism, and benevolence.¹⁰

2.2.3. Systematic Approach to Spiritual Anamnesis

The spiritual anamnesis, similar to general anamnesis, must follow objective principles, including: sufficient time to discuss concepts of spirituality; assessing the patient's beliefs and values; searching for sources of suffering and spiritual strength or resilience; identifying potential interferences to compassionate care; evaluating reasons that hinder the patient from finding means of acceptance and comfort; identification of limiting beliefs regarding behavior in healthcare; and verifying factors or situations that require subsequent referrals.⁵

Several questionnaires propose to assist in performing a spiritual anamnesis, the main ones being: FICA Spiritual History; The HOPE

Chart 1 — Basic principles of obtaining a general anamnesis.

- Maintain genuine interest and motivation, as well as an awareness of the importance of listening to the patient.
- Avoid interruptions and distractions during the anamnesis (e.g., answering cell phone calls).
- Allocate adequate time to listen to the patient.
- Do not undervalue information provided by the patient or their family members.
- Do not demonstrate feelings of impatience, irritation, contempt, or sadness.
- Do not offer opinions or value judgments regarding religion, politics, business, profession, or moral and behavioral issues.
- Exercise skill and sensitivity when questioning the patient.
- Possess scientific knowledge, training, and experience in addressing the patient's complaint.
- Maintain attention to the patient's behavior and non-verbal cues.

Adapted from: López M, Laurentys, JM. Semiologia Médica - as Bases do Diagnóstico Clínico. 3ª edição. 1990.⁷

Questions; SPIRIT - The Spiritual History; CSI-MEMO Spiritual History; American College of Physicians tools; and The FACT Spiritual History Tool.¹¹⁻¹⁶ In Chapter 2.3, some of these will be addressed in detail.

For a better understanding of themes fundamental to spiritual anamnesis, the components of the FICA questionnaire will be explored, as it is one of the most widely used due to its easy and rapid application and execution, in addition to being easy to memorize. This questionnaire allows for the analysis of the patient's religious and spiritual profile, understanding the importance and influence of their beliefs in life and illness situations, identifying support networks in the religious community, and R/S issues that may impact their treatment.¹⁷

The word FICA is a combination of letters based on a mnemonic method. The letter F, for Faith, questions the patient's beliefs. Some suggested questions are: "Do you consider yourself religious or spiritual?"; "Do you have beliefs that help you deal with problems?"; "If not, what gives meaning to your life?". Through these data, the physician begins to understand how close or distant the patient is from spiritual aspects.

The letter I indicates Importance or influence of faith. We ask how important faith and religious beliefs are to the patient, whether that faith and/or those beliefs have helped them cope with stressful situations or health problems, and whether there are any religious doctrines that might influence medical decisions or their treatment.

The third topic uses the letter C in reference to Community (church, temple, support group). The physician then asks whether the patient belongs to any religious or spiritual community, whether that community provides support and what kind, whether there is a group of people whom the individual truly loves or considers important, and whether there is a community that offers support.

Finally, the letter A refers to Action in treatment. The patient is asked how they would like the doctor to address the issue of R/S in their treatment and whether they would like

to request a referral to a religious or spiritual leader from their faith community.

The FICA questionnaire, like the others, was developed to highlight the key issues that should be identified in the patient's R/S history. In clinical practice, unlike the questions placed on scales for scientific studies (a context requiring objectivity/reliability), the questions do not need to and should not be asked in a "robotic" manner, repeating the same words suggested by the assessment instruments. On the contrary, there should be a sense of lightness, fluidity, and language appropriate to each patient's profile. In medical care, whether in the doctor's office or at the hospital bedside, what matters is that the healthcare professional clearly understands the patient's religious and spiritual beliefs and how these may affect their life, in coping with the illness, in the healing process, and/or in managing complications.¹⁷

2.2.4. Respect for Patient Choices and Individuality

During the consultation, particularly during the spiritual history, it is not the physician's role to challenge or discriminate against topics and issues related to the patient's personal choices, their religiosity, and/or spirituality. Opposing or judging merits regarding these issues does not bring benefits to the physician-patient relationship or to health promotion. This stance must be respected and adopted universally by physicians according to Article 1 of the Fundamental Principles of the CFM Code of Medical Ethics ("medicine is a profession at the service of human and collective health and shall be exercised without discrimination of any nature") and the Universal Declaration of Human Rights (Resolution 217 A III; Article 2, 1st paragraph; United Nations, 1948), which recognizes and ensures that "everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status."^{18,19}

2.2.5. Challenges of Artificial Intelligence in Spiritual Anamnesis

The use of applications/programs based on artificial intelligence (AI) has become increasingly common in medicine, especially in the areas of imaging, disease screening, therapeutic evaluation, and prognosis. Its use aims to bring greater efficiency and accuracy to various fields of professional practice.²⁰

Currently, there are specific AI-based programs that can assist the physician in the anamnesis, facilitating the collection and recording of data, which will be converted into reports that contribute to a more precise diagnosis and decision-making. These programs can also alert the physician to relevant issues that have not yet been addressed.

At the current stage of technological development, many doubts exist regarding the real capacity of AI-based tools and their potential use in R/S. An example is the question of whether AI algorithms possess the concrete capacity to evaluate an individual's spirituality. A study seeking to compare automated analyses of a heterogeneous text on spirituality (utilizing the Generative Pre-trained Transformer - GPT tool) and manual analyses (by a human; considered the "gold standard") demonstrated similar and consistent results between the forms of evaluation, including when compared to other methods of spirituality assessment/quantification. The authors highlighted the advantage that GPT required significantly less time to execute the analysis, reducing potential costs.²¹

The field of AI is vast and is still in the early stages of development, making it difficult to assess all of its potential benefits. However, as previously highlighted, the anamnesis is not limited simply to asking "good questions." Essentially, it requires the interviewer to exercise good judgment in determining the appropriate time and manner for conducting these assessments, the ability to interpret nonverbal cues, as well as empathy, respect, and the ability to Interact with the patient (e.g., through a smile or the doctor's presence). In these contexts, AI is still far from matching human capabilities and will require significant

technological advancements.²²

2.2.6. Final Considerations

The spiritual anamnesis is a valid, recognized, and necessary tool for the care and understanding of the patient as a whole. Its use can provide crucial information for both diagnosis and treatment and follow-up. Just as with the other information obtained during the consultation, the R/S requires an understanding of its principles and functions, as well as its accuracy, and necessitates sensitivity on the part of the physician in its assessment. A good doctor-patient relationship facilitates this approach, and by opening the door to understanding the patient's R/S, this bond can be strengthened, creating a virtuous cycle

2.2.7. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the links and/or QR codes presented below:



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Chapter 2.3

Scales and Instruments for Assessing Religiosity and Spirituality



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Glauco Franco Santana

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José Maria Peixoto

2.3.1. Introduction

In this Chapter, the primary scales and instruments pertinent to spiritual anamnesis and the assessment of patients' Religiosity/Spirituality (R/S) history will be addressed, both in clinical settings and in research.

2.3.2. Scales Used Predominantly in Research

For the investigation of R/S in research, quantitative or mixed quantitative/qualitative scales are preferentially utilized. In these instruments, higher scores indicate greater religiosity; however, there are no established cutoff points to categorize religiosity into low, medium, or high levels. The intent is to enable comparisons between groups to verify whether varying degrees of R/S are associated with different outcomes.^{1,2}

2.3.2.1. Duke University Religion Index

The Duke University Religion Index (DUREL) is an instrument for measuring religious involvement that is brief and rapidly

administered. It is based on the evaluation of five items and is widely used in large observational studies (cross-sectional and longitudinal) and has been validated for Brazilian Portuguese (referred to as P-DUREL). This scale assesses the three primary dimensions of religiosity: organizational, non-organizational, and intrinsic (or subjective religiosity). In the analysis of DUREL results, the ratings and scores of the three dimensions must be analyzed separately and cannot be summed into a total score (Chart 1, original English version; Appendix 1, Portuguese version).^{1,2}

2.3.2.2. Belief Into Action Scale

The Belief Into Action Scale (BIAC), an evolution of the DUREL scale, seeks to refine the assessment of religiosity by expanding the range of possible responses to reduce confounding factors (e.g., mental health indicators). It has also been validated for Portuguese, evaluating religiosity in its three dimensions: organizational, non-organizational, and intrinsic.^{3,4}

The BIAC consists of 10 questions, which are generally answered within two minutes. The first question presents 10 items, where item number 7 ("relationship with God") receives 10 points, while the others receive 1 point.

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From the second question onward, a Likert scale is used, with responses scored from 1 to 10. The total score of the scale, therefore, ranges from 10 to 100 (Chart 2, original English version; Appendix 2, Portuguese version).

Based on a study conducted with caregivers in the United States of America and university students in China, the BIAC proved to be a sensitive and comprehensive measure of religious commitment, presenting solid psychometric characteristics that allow

for evaluation across a wide range of religious beliefs and activities. This scale was also tested in hospitalized patients and proved to be equally effective in that context.⁵

2.3.2.3. Brief Religious Coping Scale

The Brief Religious Coping Scale (Brief RCOPE) was developed to assess religious-spiritual coping (RSC). Translated into Brazilian Portuguese, this scale investigates 14 items regarding religiosity and its interference with patient attitudes in the face of difficulties and illness. It places less emphasis on issues of affiliation and/or the degree of religious frequency.

The Brief RCOPE is divided into two subscales: one related to positive religious-spiritual coping (P-RSC), which points toward a secure relationship with a transcendent force, a sense of spiritual connection with others, and a benevolent worldview; and another related to negative religious-spiritual coping (N-RSC), which reflects spiritual tensions and inner struggles, as well as struggles with others and the divine. Respondents are asked to score each item on a 4-point Likert scale, with response options ranging from 0 (not at all) to 3 (a great deal). Higher scores on the P-RSC subscale indicate fewer psychosomatic symptoms and greater spiritual growth after dealing with a stressor, while high scores on the N-RSC subscale correlate with more signs and symptoms of psychological distress, worse quality of life, and greater indifference toward others (Chart 3, original English version; Appendix 3, Portuguese version).^{6,7}

2.3.2.4. Brief Multidimensional Measure of Religiousness/Spirituality

The Brief Multidimensional Measure of Religiousness and Spirituality (BMMRS) is a multidimensional instrument for measuring spirituality and religiosity within the health field. It evaluates 11 dimensions: daily spiritual experiences, values/beliefs, forgiveness, private religious practices, religious coping, religious support, religious/spiritual history, commitment, organizational religiosity, religious preferences, and global self-assessment of religiosity/

Chart 1 — Duke Religion Index (DUREL).^{1,2}

1) How often do you attend church or other religious meetings? (ORA) 1. Never. 2. Once a year or less. 3. A few times a year. 4. A few times a month. 5. Once a week. 6. More than once/week.
2) How often do you spend time in private religious activities, such as prayer, meditation or Bible study? (NORA) 1. Rarely or never. 2. A few times a month. 3. Once a week. 4. Two or more times/week. 5. Daily. 6. More than once a day.
The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.
3) In my life, I experience the presence of the Divine (i.e., God). (IR) 1. Definitely not true. 2. Tends not to be true. 3. Unsure. 4. Tends to be true. 5. Definitely true of me.
4) My religious beliefs are what really lie behind my whole approach to life. (IR) 1. Definitely not true. 2. Tends not to be true. 3. Unsure. 4. Tends to be true. 5. Definitely true of me.
5) I try hard to carry my religion over into all other dealings in life. (IR) 1. Definitely not true. 2. Tends not to be true. 3. Unsure. 4. Tends to be true. 5. Definitely true of me.

Adapted from: Koenig HG, Büssing A. The Duke University Religion Index (DUREL): A Five-Item Measure for Use in Epidemiological Studies. (Original Version).¹

Chart 2 — Belief Into Action Scale (BIAC).^{3,4}

1) Please circle the highest priority in your life now? (most valued, prized) [circle only one] 1. My health and independence. 2. My family. 3. My friendships. 4. Job, career or business. 5. My education. 6. Financial security. 7. Relationship with God. 8. Ability to travel & see the world. 9. Listening to music and partying. 10. Freedom to live as I choose.		
2) How often do you attend religious services? (circle a number below) 1. Never. 2. Rarely. 3. Couple times/yr. 4. Every few mos. 5. About once/mo. 6. Several times/moo. 7. About Every wk. 8. Every week. 9. More than once/wk. 10. Daily.	3) Other than religious services, how often do you get together with others for religious reasons (prayer, religious discussions, volunteer work, etc.)? 1. Never. 2. Rarely. 3. Couple times/yr. 4. Every few mos. 5. About once/mo. 6. Several times/moo. 7. About Every wk. 8. Every week. 9. More than once/wk. 10. Daily.	4) To what extent (on a 1 to 10 scale) have you decided to place your life under God's direction? 1. Not at all (really haven't thought about it). 2. 3. 4. 5. To a moderate degree. 6. 7. 8. 9. 10. Completely, totally.
5) What percentage of your gross annual income do you give to your religious institution or to other religious causes each year? 1. 0%. 2. Less than 1%. 3. 1%-2%. 4. 3%-4%. 5. 5%-6%. 6. 7%-8%. 7. 9%-10%. 8. 11%-12%. 9. 13%-14%. 10. 15% or more.	6) On average, how much time each day (in 24 hours) do you spend listening to religious music or radio, or watching religious TV? 1. 0 (never). 2. 1-5 min. 3. 6-10 min. 4. 11-20 min. 5. 21-30 min. 6. 31-60min. 7. More than 1 hr, less than 2 hr. 8. More than 2 hr, less than 3 hr. 9. 3-4 hrs. 10. 5 hrs or more.	7) On average, how much time each day do you spend reading religious scriptures, books, or other religious literature? 1. 0 (never). 2. 1-5 min. 3. 6-10 min. 4. 11-20 min. 5. 21-30 min. 6. 31-60min. 7. More than 1 hr, less than 2 hr. 8. More than 2 hr, less than 3 hr. 9. 3-4 hrs. 10. 5 hrs or more.
8) On average, how much time each day do you spend in private prayer or meditation? 1. 0 (never). 2. 1-5 min. 3. 6-10 min. 4. 11-20 min. 5. 21-30 min. 6. 31-60min. 7. More than 1 hr, less than 2 hr. 8. More than 2 hr, less than 3 hr. 9. 3-4 hrs. 10. 5 hrs or more.	9) On average, how much time each day do you spend as a volunteer in your religious community or to help others for religious reasons? 1. 0 (never). 2. 1-5 min. 3. 6-10 min. 4. 11-20 min. 5. 21-30 min. 6. 31-60min. 7. More than 1 hr, less than 2 hr. 8. More than 2 hr, less than 3 hr. 9. 3-4 hrs. 10. 5 hrs or more.	10) To what extent (on a 1 to 10 scale) have you decided to conform your life to the teachings of your religious faith? 1. Not at all (really haven't thought about it). 2. 3. 4. 5. To a moderate degree. 6. 7. 8. 9. 10. Completely, totally.

Adapted from: Koenig H, Wang Z, Al Zaben F, Adi A. Belief into Action Scale: A Comprehensive and Sensitive Measure of Religious Involvement.³

spirituality. Response options are on a scale with items ranging from a minimum of 1 to 4 options to a maximum of 1 to 8 options, in addition to some qualitative questions.

Curcio et al. performed the validation of this scale for the Portuguese language, naming it the *Medida Multidimensional Breve de Religiosidade/Espiritualidade* (BMMRS-P). The scoring for each dimension is specific to that

inquiry; a low score indicates a greater presence or intensity of the dimension, while a high score reflects a lesser presence. Considering that there are few multidimensional R/S instruments in Portuguese, the authors concluded that the BMMRS-P could become a reference tool for studies on religiosity and spirituality in Brazil (Chart 4, original English version; Appendix 4, Portuguese version).^{8,9}

Chart 3 — Brief Religious Coping Scale (Brief RCOPE) - Positive and Negative Coping Subscale Items.^{6,7}

Positive Religious Coping Subscale Items:		Negative Religious Coping Subscale Items:	
1-	Looked for a stronger connection with God.	8-	Wondered whether God had abandoned me.
2-	Sought God's love and care.	9-	Felt punished by God for my lack of devotion.
3-	Sought help from God in letting go of my anger.	10-	Wondered what I did for God to punish me.
4-	Tried to put my plans into action together with God.	11-	Questioned God's love for me.
5-	Tried to see how God might be trying to strengthen me in this situation.	12-	Wondered whether my church had abandoned me.
6-	Asked forgiveness for my sins.	13-	Decided the devil made this happen.
7-	Focused on religion to stop worrying about my problems.	14-	Questioned the power of God.

Adapted from: Pargament K, Feuille M, Burdzy D. The Brief RCOPE: Current Psychometric Status of a Short Measure of Religious Coping.⁶

Chart 4 — Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS-P).^{8,9}

A) DAILY SPIRITUAL EXPERIENCES - You may experience the following in your daily life. If so, how often?		
1) I feel God's presence: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.	2) I find strength and comfort in my religion: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.	3) I feel deep inner peace or harmony: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.
4) I desire to be closer to or in union with God: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.	5) I feel God's love for me, directly or through others: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.	6) I am spiritually touched by the beauty of creation: 1. Many times a day. 2. Every day. 3. Most days. 4. Some days. 5. Once in a while. 6. Never or almost never.
B) VALUES-LONG FORM		
7) I believe in a God who watches over me: 1. Strongly agree. 2. Agree. 3. Disagree. 4. Strongly disagree.	8) I feel a deep sense of responsibility for reducing pain and suffering in the world: 1. Strongly agree. 2. Agree. 3. Disagree. 4. Strongly disagree.	
C) FORGIVENESS - Because of my religious or spiritual beliefs:		
9) I have forgiven myself for things that I have done wrong: 1. Always or almost always. 2. Often. 3. Seldom. 4. Never.	10) I have forgiven those who hurt me: 1. Always or almost always. 2. Often. 3. Seldom. 4. Never.	11) I know that God forgives me: 1. Always or almost always. 2. Often. 3. Seldom. 4. Never.
D) PRIVATE RELIGIOUS PRACTICES		
12) How often do you pray privately in places other than at church or synagogue? 1. More than once a day. 2. Once a day. 3. A few times a week. 4. Once a week. 5. A few times a month. 6. Once a month. 7. Less than once a month. 8. Never.	13) Within your religious or spiritual tradition, how often do you meditate? 1. More than once a day. 2. Once a day. 3. A few times a week. 4. Once a week. 5. A few times a month. 6. Once a month. 7. Less than once a month. 8. Never.	14) How often do you watch or listen to religious programs on TV or radio? 1. More than once a day. 2. Once a day. 3. A few times a week. 4. Once a week. 5. A few times a month. 6. Once a month. 7. Less than once a month. 8. Never.
15) How often do you read the Bible or other religious literature? 1. More than once a day. 2. Once a day. 3. A few times a week. 4. Once a week. 5. A few times a month. 6. Once a month. 7. Less than once a month. 8. Never.		16) How often are prayers or grace said before or after meals in your home? 1. At all meals. 2. Once a day. 3. At least once a week. 4. Only on special occasions. 5. Never.

Continued...

Chart 4 (Continued) — Brief Multimensional Measure of Religiousness/Spirituality (BMMRS-P).^{8,9}

E) RELIGIOUS AND SPIRITUAL COPING - Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?		
17) I think about how my life is part of a larger spiritual force: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.	18) I work together with God as partners: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.	19) I look to God for strength, support, and guidance: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.
20) I feel God is punishing me for my sins or lack of spirituality: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.	21) I wonder whether God has abandoned me: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.	22) I try to make sense of the situation and decide what to do without relying on God: 1. A great deal. 2. Quite a bit. 3. Somewhat. 4. Not at all.
23) To what extent is your religion involved in understanding or dealing with stressful situations in any way? 1. Very involved. 2. Somewhat involved. 3. Not very involved. 4. Not involved at all.		
F) RELIGIOUS SUPPORT - These questions are designed to find out how much help the people in your congregation would provide if you need it in the future.		
24) If you were ill, how much would the people in your congregation help you out? 1. A great deal. 2. Some. 3. A little. 4. None.	25) If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you? 1. A great deal. 2. Some. 3. A little. 4. None.	26) How often do the people in your congregation make too many demands on you? 1. Very often. 2. Fairly often. 3. Once in a while. 4. Never.
27) How often are the people in your congregation critical of you and the things you do? 1. Very often. 2. Fairly often. 3. Once in a while. 4. Never.		
G) RELIGIOUS/SPIRITUAL HISTORY		
28) Did you ever have a religious or spiritual experience that changed your life? () No. () Yes. IF YES: How old were you when this experience occurred?		
29) Have you ever had a significant gain in your faith? () No. () Yes. IF YES: How old were you when this occurred?		
30) Have you ever had a significant loss in your faith? () No. () Yes. IF YES: How old were you when this occurred?		
H) COMMITMENT		
31) I try hard to carry my religious beliefs over into all my other dealings in life. 1. Strongly agree. 2. Agree. 3. Disagree. 4. Strongly disagree.		
32) During the last year about how much was the average monthly contribution of your household to your congregation or to religious causes? Contribution per year: OR Contribution per month:		
33) In an average week, how many hours do you spend in activities on behalf of your church or activities that you do for religious or spiritual reasons?		
I) ORGANIZATIONAL RELIGIOUSNESS		
34) How often do you go to religious services? 1. More than once a week. 2. Every week or more often. 3. Once or twice a month. 4. Every month or so. 5. Once or twice a year. 6. Never.	35) Besides religious services, how often do you take part in other activities at a place of worship? 1. More than once a week. 2. Every week or more often. 3. Once or twice a month. 4. Every month or so. 5. Once or twice a year. 6. Never.	
J) RELIGIOUS PREFERENCE		
36) What is your current religious preference?		If PROTESTANT, which specific denomination is that?
K) OVERALL SELF-RANKING		
37) To what extent do you consider yourself a religious person? 1. Very spiritual. 2. Moderately spiritual. 3. Slightly spiritual. 4. Not spiritual at all.		
38) To what extent do you consider yourself a spiritual person? 1. Very spiritual. 2. Moderately spiritual. 3. Slightly spiritual. 4. Not spiritual at all.		

Adapted from: Idler EL, Musick MA, Ellison CG, George LK, Krause N, Ory MG, et al. Measuring Multiple Dimensions of Religion and Spirituality for Health Research: Conceptual Background and Findings from the 1998 General Social Survey.⁸

2.3.2.5. World Health Organization Quality of Life Instrument

The World Health Organization Quality of Life Instrument – Spirituality, Religion, and Personal Beliefs module (WHOQOL-SRPB) was developed by the World Health Organization (WHO) to evaluate the relationship between R/S and quality of life. The WHOQOL-SRPB instrument contains 32 questions divided into 8 domains: connection to a Spiritual Being/Force, meaning in life, awe, wholeness and integration, spiritual strength, inner peace, hope/optimism, and faith. Responses are given on 5-point Likert scales (1 = not at all, 2 = a little, 3 = a

moderate amount, 4 = very much, 5 = extremely).

Through these items, we can verify that this is an instrument primarily measuring the spiritual sphere; however, in some topics, it exceeds the limits of what is strictly considered religiosity and/or spirituality. In a commentary criticizing the WHOQOL-SRPB scale, Moreira-Almeida and Koenig point out that 5 of the 8 domains of the scale do not correspond to the measurement of R/S but are instead consequences of a lifestyle linked to these beliefs. Panzini et al. validated this scale for the Brazilian population (Chart 5, original English version; Appendix 5, Portuguese version).^{10–12}

Chart 5 — Instrument WHOQOL-SRPB.^{10–12}

CONNECTION TO A SPIRITUAL BEING:
1. To what extent does any connection to a spiritual being help you get through hard times? 2. To what extent does any connection to a spiritual being help you to tolerate stress? 3. To what extent does any connection to a spiritual being help you to understand others? 4. To what extent does any connection to a spiritual being provide you with comfort/reassurance?
MEANING AND PURPOSE IN LIFE:
1. To what extent do you find meaning in life? 2. To what extent does taking care of other people provide meaning of life for you? 3. To what extent do you feel your life has a purpose? 4. To what extent do you feel you are here for a reason?
AWE AND WONDER:
1. To what extent are you able to experience awe from your surroundings? (e.g. nature, art, music) 2. To what extent do you feel spirituality touched by beauty? 3. To what extent do you have feelings of inspirations/excitement in your life? 4. To what extent are you grateful for the things in nature that you can enjoy?
WHOLENESS AND INTEGRATION:
1. To what extent do you feel any connection between your mind, body and soul? 2. How satisfied are you that you have a balance between mind, body and soul? 3. To what extent do you feel the way you live is consistent with what you feel and think? 4. How much do your beliefs help you to create coherence between what you do, think and feel?
SPIRITUAL STRENGTH:
1. To what extent do you feel inner spiritual strength? 2. To what extent do you find spiritual strength in difficult times? 3. How much does spiritual strength help you to live better? 4. How much do you feel strong within yourself?
INNER PEACE:
1. To what extent do you feel peaceful within yourself? 2. To what extent do you have inner peace? 3. How much are you able to feel peaceful when you need to? 4. To what extent do you feel a sense of harmony in your life?
HOPE AND OPTIMISM:
1. How hopeful do you feel? 2. To what extent are you hopeful about your life? 3. To what extent does being optimistic improve your quality of life? 4. How able are you able to remain optimistic in times of uncertainty?
FAITH:
1. To what extent does faith contribute to your well-being? 2. To what extent does faith give you comfort in daily life? 3. To what extent does faith give you strength in daily life? 4. To what extent does faith help you to enjoy life?

Adapted from: Skevington SM, Gunson KS, O'Connell KA. Introducing the WHOQOL-SRPB BREF: developing a short-form instrument for assessing spiritual, religious and personal beliefs within quality of life.¹⁰

2.3.3. Questionnaires Used in Clinical Practice

In Chapter 2.2, we discussed important topics regarding the religious-spiritual anamnesis approach and cited the FICA questionnaire as an example. Now, some of the main practical R/S assessment instruments will be presented, which can be used by the physician in the office or at the hospital bedside. Unlike scales used in research, clinical questionnaires serve as a guide for the physician to address the patient's R/S, pointing to relevant issues and topics that may impact care and the therapeutic process.

2.3.3.1. FICA Questionnaire

As cited in Chapter 2.2, the FICA questionnaire — which is easy and rapid to apply, execute, and memorize — analyzes the patient's religious and spiritual profile, the importance and influence their beliefs exert on life situations and illness, and identifies support networks in the religious community and beliefs that may impact

treatment. It addresses “Faith, Importance of faith, importance of the faith Community, and Action” in treatment (Chart 6, original English version; Appendix 6, Portuguese version).^{13,14}

2.3.3.2. HOPE Questionnaire

The HOPE questionnaire addresses the patient's spirituality in a very generic way, allowing them to discuss their innermost beliefs regardless of whether they follow an organized religion, thus expressing how much their feelings may also influence their treatment. Furthermore, HOPE seeks to know if the illness interfered with or altered the patient's beliefs and offers the physician the possibility of addressing the patient's spiritual needs through direct action, asking which actions could be taken to provide the patient with greater spiritual comfort. It addresses Hope, Organized religion, Personal spirituality and practice, and Effects on medical treatment and terminal matters (Chart 7, original English version; Appendix 7, Portuguese version).^{14,15}

Chart 6 — FICA Questionnaire - Spiritual Assessment Tool.^{13,14}

F: FAITH OR BELIEFS • What is your faith or belief? • Do you consider yourself spiritual or religious? • What things do you believe in that give meaning to your life?
I: IMPORTANCE AND INFLUENCE • Is it important in your life? • What influence does it have on how you take care of yourself? • How have your beliefs influenced your behavior during this illness? • What role do your beliefs play in regaining your health?
C: COMMUNITY • Are you part of a spiritual or religious community? • Is this of support to you and how? • Is there a person or group of people you really love or who are really important to you?
A: ADDRESS • How would you like me, your healthcare provider, to address these issues in your healthcare?

*Adapted from: Puchalski C, Romer AL. Taking a spiritual history allows clinicians to understand patients more fully.*¹³

2.3.3.3. SPIRIT Questionnaire

This is a more extensive questionnaire, which requires more time to complete. It provides a broad investigation with a greater concern for understanding spiritual aspects and the barriers that may or may not harm the professional-patient relationship. It is structured into 6 items: S—Spiritual belief system; P—Personal spirituality; I—Integration within a spiritual community; R—Rituals of practice and meditation; I—Implications for medical care; T—Terminal

events planning (Chart 8, original English version; Appendix 8, Portuguese version).¹⁴⁻¹⁶

2.3.3.4. CSI-MEMO Questionnaire

Developed by Koenig, this is a very brief and easy-to-memorize questionnaire composed of only four questions. It ensures the potential mobilization of community entities to assist in the patient’s spiritual comfort based on their responses. Additionally, it highlights the influence of spiritual beliefs on treatment, both

Chart 7 — HOPE Questionnaire.^{14,15}

H: Sources of hope, meaning, comfort, strength, peace, love and connection 1. We have been discussing your support systems. I was wondering, what is there in your life that gives you internal support? 2. What are your sources of hope, strength, comfort and peace? 3. What do you hold on to during difficult times? 4. What sustains you and keeps you going? 5. For some people, their religious or spiritual beliefs act as a source of comfort and strength in dealing with life’s ups and downs; is this true for you? If the answer is “yes,” go on to O and P questions. If the answer is” no,” consider asking: was it ever? If the answer is “Yes, “ ask: What changed?
O: Organized religion 1. Do you consider yourself part of an organized religion? 2. How important is this to you? 3. What aspects of your religion are helpful and not so helpful to you? 4. Are you part of a religious or spiritual community? Does it help you? How?
P: Personal spirituality/practices 1. Do you have personal spiritual beliefs that are independent of organized religion? What are they? 2. Do you believe in God? What kind of relationship do you have with God? 3. What aspects of your spirituality or spiritual practices do you find most helpful to you personally? (e.g., prayer, meditation, reading scripture, attending religious services, listening to music, hiking, communing with nature).
E: Effects on medical care and end-of-life issues 1. Has being sick (or your current situation) affected your ability to do the things that usually help you spiritually? (Or affected your relations with God?) 2. As a doctor, is there anything that I can do to help your access the resources that usually help you? 3. Are you worried about any conflicts between your beliefs and your medical situation/care/decisions? 4. Would it be helpful for you to speak to a clinical chaplain/community spiritual leader? 5. Are there any specific practices or restrictions I should know about in providing your medical care? (e.g., dietary restrictions, use of blood products).

Adapted from: Anandarajah G, Hight E. Spirituality and medical practice: using the HOPE questions as a practical tool for spiritual assessment.¹⁵

positive and negative (Chart 9, original English version; Appendix 9, Portuguese version).¹⁴⁻¹⁷

2.3.3.5. Spiritual History Tool - FACT

The FACT Spiritual History Tool was developed based on the following principles: “faith is already a fact that affects the lives and healthcare choices

of many patients, and most already use faith-based practices as complementary treatment modalities; healthcare professionals need to evaluate how faith impacts their treatment choices; a spiritual history is not about what a person believes, but about how their faith or belief functions as a coping mechanism; there is a need to respect patients’ privacy regarding their spirituality without imposing one’s own

Chart 8 — SPIRIT Questionnaire.^{14,19}

S: SPIRITUAL belief system

- Do you have a religion?
- Name or describe your spiritual belief system.

P: PERSONAL spirituality

- Describe the practice or beliefs of your spiritual belief system that you personally agree with.
- Describe the practice and beliefs you do not accept.
- What does your religion/spirituality mean to you?
- What is the importance of your religion or spirituality in your daily routine?

I: INTEGRATION in a spiritual community

- Do you belong to a religious/spiritual community?
- What is your function there?
- How important is this group to you?
- Is it support? In what way?
- Does this group support or would support you in case of health questions?

R: Meditation and Practice RITUALS

- Do you practice anything in particular as part of your religion/spirituality (ex: prayers or meditations)?
- Are there any life style practice or activities that your religion encourages/prohibits? Do you accept that?
- How important are these practice and restrictions to you?
- Are there any other specific elements concerning doctor caring you refuse for religious/spiritual reasons?

I: IMPLICATIONS Concerning Doctor Treatment

- What aspects of your religion/spirituality you would like me to have in mind when treating you?
- Would you like to talk about religious/spiritual implications concerning your health care?
- What kind of information or understanding would strengthen our doctor-patient relationship?
- Are there any religion questions that would impair our relationship?

T: Planning TERMINAL Events

- As we have planned to take care of your health for your whole life, how would faith affect your decisions?
- Are there any aspects of the treatment you would like to ignore or quit because of your faith?

Adapted from: Queiroz CMD, Abdalla IR, Dupas RD, Hermida RPD. Spiritual Anamnesis and Doctor-Patient Relationship: Review and Reconstruction of a Daily Routine Instrument.¹⁹

Chart 9 — CSI-MEMO Questionnaire.^{14,19}

• Are your religious/spiritual beliefs a source of stress or comfort to you?
• Do you have a kind of belief that may influence your medical decisions?
• Are you a member of a religious/spiritual community? Does it help you somehow?
• Do you have any other spiritual needs you would like to share with anyone?

Adapted from: Queiroz CMD, Abdalla IR, Dupas RD, Hermida RPD. Spiritual Anamnesis and Doctor-Patient Relationship: Review and Reconstruction of a Daily Routine Instrument.¹⁹

beliefs; it is necessary to refer the patient to professional chaplains and spiritual counselors when appropriate. One’s own spirituality can positively affect the physician-patient relationship, being, in itself, a therapeutic intervention, recalling the Hippocratic principle of curing when possible, relieving when necessary, and consoling always.” Thus, questions were developed based on the items “Faith, Activity, Coping/Conflict, and Treatment.” In the author’s opinion, FACT — unlike other spiritual history tools — makes the treatment plan explicit, and at each stage of the assessment, it is judged whether or not further treatment should proceed and, if so, in what direction (Chart 10, original English version; Appendix 10, Portuguese version).¹⁸

2.3.4. Final Considerations

The creation of both research scales and questionnaires to assist in obtaining a spiritual history is fundamental. In this way, the understanding of the intersection of R/S with health promotion and its practical effects can be exercised consistently, repetitively, and stably within scientific principles. Dozens of scales and questionnaires have already been developed; therefore, it is up to the researcher and/or health professional to define which one they will work with, based on personal preferences, specific needs, study or patient population, and the cultural issues of the environment. In this Chapter, 5 scales and 5 questionnaires were chosen, considered well-structured and complementary, with the intention of providing basic notions for the reader to understand the principles underlying these instruments and subsequently delve deeper, if interested, into this vast field of science.

2.3.5. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the links and/or QR codes presented below:



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Chart 10 — The FACT Spiritual History Tool.¹⁸**F: Faith (or Beliefs)**

What is your Faith or belief?

Do you consider yourself a person of Faith or a spiritual person?

What things do you believe that give your life meaning and purpose?

A: Active (or Available, Accessible, Applicable)

Are you currently Active in your faith community?

Are you part of a religious or spiritual community?

Is support for your faith Available to you?

Do you have Access to what you need to Apply your faith (or your beliefs)?

Is there a person or a group whose presence and support you value at a time like this?

C: Coping (or Comfort) / Conflicts (or Concerns)

How are you Coping with your medical situation?

Is your faith (your beliefs) helping you Cope?

How is your faith (your beliefs) providing Comfort in light of your diagnosis?

Do any of your religious beliefs or spiritual practices Conflict with medical treatment?

Are there any particular Concerns you have for us as your medical team?

T: Treatment Plan

Based on the responses to these questions, the clinician now makes a judgment as to the appropriate Treatment.

Adapted from: Larocca-Pitts MA. FACT: taking a spiritual history in a clinical setting.¹⁸**References****FREE** = Article available in full, free of charge.

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Chapter 2.4

Ethics of Spiritual Approach and Investigation

Glauco Franco Santana

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2.4.1. Introduction

Science indicates that a positive relationship exists between an individual's Religiosity/Spirituality (R/S) and the promotion of their health. However, for this information to be applied in clinical practice, it is necessary to understand and respect the ethical boundaries within which we operate.

It is fundamental to understand the concepts of ethics and medical ethics. Broadly, ethics is defined as the set of standards and moral values of an individual and/or social group, also addressing their application within the scope of human relations. Conversely, medical ethics refers to legislation or a statute containing the ethical/moral principles of the medical profession. In Brazil, the Federal Council of Medicine (CFM) is the federal public autarchy legally responsible for the debate and elaboration of the Code of Medical Ethics (CEM).

The CEM is the legal document that establishes, in a positivist manner, the limits, duties, and rights that physicians must observe in their relations with one another, with patients, with industry, and with society across various spheres of medical practice (care, teaching, research, and management).¹

2.4.2. Medical Ethics and Religiosity/Spirituality

The four pillars of medical ethics/bioethics are: beneficence, non-maleficence, autonomy, and justice. Thus, when evaluating a patient's R/S, these pillars must be strictly observed and respected.^{2,3}

The precept of beneficence is understood as doing good, while non-maleficence means avoiding doing harm. These are ancient norms that remain the foundation for medical action. The Hippocratic principle of helping, or at least not causing harm (*primum non nocere, secundum cavere, tertium sanare*), remains as relevant today as it was 2,500 years ago. During the spiritual anamnesis, the physician should seek information that may benefit the diagnosis, the treatment to be instituted, and the physician-patient relationship. However, this approach must not cause harm, injury, or limitations to this relationship and, consequently, to the proposed clinical conducts.²

Autonomy refers to an individual's capacity and right to self-govern. For a person to make autonomous choices, they must be capable, conscious, and free to interpret and act.

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Autonomous action requires prior knowledge and information regarding one's situation and possible subsequent consequences. It is the physician's duty to inform and clarify for the patient the motivation, rationale, stages, possible benefits, and limitations regarding the investigation of their R/S. This communication must be clear, respectful, and in language appropriate to the patient's understanding.⁴

Once adequately informed, the patient may express opposition to the investigation of their R/S. The physician must respect this, fulfilling not only the principle of autonomy but also those of beneficence and non-maleficence. This conduct is determined in Article XXI of Chapter I of the CEM: "In the process of professional decision-making, in accordance with their dictates of conscience and legal provisions, the physician shall accept the choices of their patients regarding diagnostic and therapeutic procedures expressed by them, provided they are appropriate to the case and scientifically recognized."¹

Finally, the principle of justice in medical practice is interpreted as the fair, equitable, and appropriate treatment of individuals, offering comprehensive care involving biological, psychic, social, and spiritual aspects. Issues of the patient's social, cultural, and economic status, or even the source of payment for the service, must not interfere with the physician's performance. The physician must seek and strive for a viable environment for integral care. Article XIV of Chapter I of the CEM guides: "The physician shall strive to improve the standards of medical services and to assume responsibility regarding public health, sanitary education, and health-related legislation."¹

2.4.3. Ethical Limits of the Religiosity and Spirituality Approach

Given the above, pertinent questions arise: What are the responsibilities for physicians to evaluate the patient integrally? And what are the limits and dilemmas?

The debate on these issues, including within the scientific community, has been

broad and frequently lacking appropriate answers. Ethical questions, by their cultural and social construction, rarely have perfect and definitive answers. Thus, continuous, in-depth discussions that hear different schools of thought are necessary in an attempt to solve certain dilemmas associated with the theme.⁵⁻⁷

Some of the main dilemmas regarding the ethical limits in the R/S approach will be addressed in the following topics.

2.4.3.1. Would it be an Ethical Infraction Not to Perform a Spiritual Anamnesis?

Studies have found that the proportion of patients who wish for their physicians to address their R/S is greater than those effectively performed. There are discussions within medical entities and specialty societies, as well as among the population, regarding the necessity of the R/S approach in consultations and anamneses.

For reflection, a study of terminal patients found that 60% of oncologists desired to perform a spiritual assessment of these patients; however, only 41% executed it. In multivariate analysis, it was observed that the physicians who performed the assessment possessed higher intrinsic religiosity and had received training in spiritual care.⁸ Thus, a point of inquiry concerns the other reasons why 40% of physicians did not wish to conduct the investigation, which may involve: lack of knowledge regarding the importance of R/S in the treatment of terminal patients; a simplistic view of the human being focused only on the disease/treatment and not on the integrality of their health; lack of adequate medical education/training; personal situations (e.g., overwork, time management issues) and/or institutional factors (e.g., lack of private space to approach the patient) that limited the professional from performing and applying all their knowledge for the patient's benefit.^{8,9} A recent study demonstrated that, in Brazil, only 35.1% of surveyed physicians always or frequently addressed R/S in their professional practice.¹⁰

One way to stimulate and improve the prevalence of R/S investigation in medical practice is to provide adequate information and training to professionals. Constant scientific updating is the spark that triggers the search for knowledge. A study conducted in 2021, involving 150 Brazilian medical schools (43.9% of schools), found that only 65.5% taught R/S content; however, most did so in fragmented moments and as a one-time opportunity (not as a constant part of the mandatory curriculum).¹¹ This scenario is already different in other countries where more frequent offerings occur: in 90% of schools in the United States of America; 59% in Great Britain; and 52% of schools in German-speaking countries.^{12–14}

It is important to emphasize that medical specialty societies can and should contribute to this training and stimulus for the R/S approach. The Brazilian Society of Cardiology (SBC) created the Study Group on Spirituality and Cardiovascular Medicine (GEMCA) in 2013, which became the Department of Spirituality and Cardiovascular Medicine (DEMCA) in 2020. DEMCA encourages Brazilian cardiologists to participate in events and debates on the subject, breaking down barriers to knowledge access. The Minas Gerais Society of Cardiology (SMC) created its Study Group on Spirituality and Cardiovascular Medicine (GEMCA-SMC) in 2024, which has been conducting in-person and virtual scientific meetings and events that resulted in the publication project of this work.

The ideal would be a joint and concentrated effort involving all medical specialty societies in Brazil, aiming for the development of guidelines on R/S — specifically regarding spiritual anamnesis — as well as dissemination in their scientific events.

Article II of Chapter I of the CEM defines that “the target of all medical attention is the health of the human being, for whose benefit the physician shall act with maximum zeal and the best of their professional capacity.”¹ Therefore, it is the duty of the health professional to seek continuous qualification, exercising their activities for the full benefit and integral health of the patient, including R/S issues.

In light of all that has been raised and with the progressive evolution of scientific

knowledge, the failure to perform a spiritual anamnesis could, in the future, be considered an ethical infraction; however, this issue still requires broad and in-depth discussion among physicians, patients, entities, and society.

2.4.3.2. How to Handle Negative Religious-Spiritual Coping in Extreme Situations?

Religious-spiritual coping (RSC) is the way individuals use their faith to deal with stress situations. Scientific evidence points out that religious and/or spiritual beliefs and practices are associated with individual well-being and health. When coping attitudes toward stress and illness lead to satisfactory results, positive religious-spiritual coping (P-RSC) occurs.¹⁵

On the other hand, negative religious-spiritual coping (N-RSC) arises when certain religious and/or spiritual attitudes are deleterious to coping with stress and illness. In these cases, some of the patient’s misconceptions hinder their healing process or improvement of their quality of life. It may manifest as dissatisfaction with God and the religious community, or negative feelings perceived as punishment from God or actions of the devil. In other words, it can be considered a “side effect” of R/S.¹⁶

An example of N-RSC in an extreme situation, which allows for addressing the raised dilemma, would be the case of a patient and/or family who places hope in the occurrence of a miracle and cure of a severe terminal illness, demanding that the physician adopt inappropriate conducts, including the prolongation of life. It is important to clarify that hope for a miracle is a usually positive psychological construct and should be used as part of a spiritual intervention and associated with conventional recommended treatment.¹⁷

However, the prolongation of life for terminal patients through artificial and disproportionate treatments, even without prospect of improvement, constitutes an infraction termed *dysthanasia*. The CEM establishes that “in irreversible and terminal clinical situations, the physician shall avoid

performing unnecessary diagnostic and therapeutic procedures and shall provide patients under their care all appropriate palliative care.”¹

Conversely, the physician could be accused of infringing upon the ethical principle of patient autonomy if they deny the artificial prolongation of their life. A study of the Brazilian population found that 33% of the elderly agree with the use of obstinate measures in severe/terminal illness, citing: a desire to “do everything to maintain life at any cost”; “while there is life, there is hope”; “only God can take someone’s life”; and “the machines (technological resources) exist to be used.”¹⁸

Based on what has been described thus far, a dilemma arises in which the physician may accept the patient’s autonomy and thus promote dysthanasia, or manage the case under the principle of the CEM, allowing death to happen naturally, ensuring the patient’s dignity (orthoathanasia).

There is no simple answer, as this dilemma arises from the patient’s own conflicts involving their religious convictions and the cognitive, psychic, sociocultural, and economic contexts and previous experiences.¹⁹ In these cases, the professional is called upon to exercise the medical art, as well as to establish a closer and more solid physician-patient and/or physician-family relationship. The physician cannot insist that patients renounce their religious beliefs or practices. According to Pellegrino, “to ignore, nullify, repudiate, or ridicule the patient’s values is to assault the patient’s own humanity.” This situation aggravates the already existing psychic disintegration resulting from the illness.²⁰

Should the physician-patient relationship prove insufficient to mitigate the dilemma, the constitution of a multidisciplinary team is recommended, additionally involving other professionals and chaplains, establishing respectful dialogue with proximity, genuine interest, and understanding. If, nonetheless, the viewpoints of the multidisciplinary team and the patient/family do not align, it is advisable to invite the religious/spiritual leaders of the patient’s faith community and even the hospital ethics team to deliberate. The

CEM determines that patient autonomy must be respected “provided they are appropriate to the case and scientifically recognized.” Should controversy or the dilemma persist, it is fundamental to request an opinion from the Regional Medical Council.¹

There are many other examples of complex situations, such as abandonment of treatment due to feelings of punishment or even the pursuit of healing processes that jeopardize scientifically proven treatment. Regardless of the situation, the principles of beneficence and non-maleficence may end up in conflict with the principle of autonomy. Experience, common sense, and support can facilitate the management of these situations. Hippocrates stated that “Life is short, art is long, opportunity is fleeting, experience is treacherous, and judgment is difficult. The physician must be ready not only to do his duty but also to secure the cooperation of the patient, of the attendants, and of the family.”²¹

2.4.3.3. Should We Recommend Religiosity and Spirituality?

Since a patient’s R/S is associated with better progression of their diseases and reduction of outcomes (morbidity and mortality) — both in countries with a higher prevalence of religiosity and in secular ones, as well as across different ethnicities and in varied diseases (e.g., chronic kidney disease) — there is a growing debate regarding its recommendation.^{22–26}

The starting point is to define whether the recommendation of R/S is an ethical act or not, and to understand if it would be part of the medical prescription.

According to the CFM and the Ministry of Health of Brazil, the medical prescription, also known as a medical recipe, is a medical act that refers to a legal document (written or digital) in which professionals, after consultation, record therapeutic guidance and recommendations. This document must be clear, detailed, with all necessary guidance, the prescriber’s name, and the patient’s name, address, identification document, and age (for children and the elderly), and in the case of medications, it

must present the pharmaceutical principle, dosage, posology, and duration of treatment. It must be conducted with transparency, clarification, and the professional's availability for possible adverse reactions. However, in medical practice, the recommendation of measures that do not involve drugs is eventually performed only via verbal guidance. Examples include nutritional guidance or the recommendation to perform physical activities that the physician, specifically the cardiologist, habitually gives to the patient. In these cases, the individual becomes aware of the importance of these factors and is encouraged to initiate a change in habit.^{27,28}

An ethical issue requiring total attention is the possibility of religious proselytism, a situation in which the physician, intentionally or not, ends up inducing the patient to follow a particular religion instead of addressing an R/S intervention. This type of conduct is inappropriate and considered unethical and unscientific.

In addition to the physician informing that a good relationship exists between R/S and a generally positive health effect, it is necessary that they do not neglect to ask about the patient's interest, but also possess the sensitivity, respect, and capacity to determine the timing of whether to continue the approach to the patient's R/S. The boundary between encouraging and inducing (proselytism) is very thin, requiring physicians to increasingly train adequately in R/S and reflect on ethics in medical activity.²⁹

Scientific literature points to the benefit of R/S, and its orientation is in accordance with the principles of benevolence, as described in Article V of Chapter I of the CEM, which states: "it is the duty of the physician to continuously improve their knowledge and use the best of scientific progress for the benefit of the patient and society."¹

A question still debated concerns the possible adverse effects of the intervention itself and of N-RSC. Adverse and side effects, provided they are minor and infrequent, do not prevent effective therapies with proven benefits from being prescribed, such as medications (e.g., anti-hypertensives) or interventions (e.g., cardiac surgery). Thus, N-RSC should not serve as a justification for the non-recommendation of R/S.³⁰

Given these reflections, scientific evidence, and CFM guidance, the proper approach to R/S followed by guidance/recommendations to the patient can allow for more effective treatment and the integral promotion of the patient's health. Failing to use science for the benefit of the patient is an attitude that goes against the ethical principles of good medical practice and should be discouraged.

2.4.3.4. Can the Physician Say a Prayer/Pray with the Patient When Requested?

Occasionally, the physician is requested and/or invited to perform a prayer with their patient. This situation creates doubt regarding its pertinence and the possible ethical issues involved. A good physician-patient relationship often causes a state of such great admiration and trust that the patient feels encouraged to request this action. A study of 476 American physicians found that 77% would be willing to pray with their patients if they asked. However, other researchers argue that when physicians fulfill patient requests for spiritual care (e.g., prayers), these requests, when possible, should be referred to chaplains or other spiritual leaders.^{5,7,31,32}

Attempting to clarify the question "Can a physician who feels comfortable say a prayer/pray for the patient when requested by them?", the Regional Medical Council of the State of Minas Gerais (CRM-MG) issued an opinion (no. 38/2025; approved on March 6, 2025) concluding that: "it is up to each professional, based on their religious choice, to perform or not perform a prayer with their patient." Therefore, it does not constitute an ethical infraction for a physician who, at the patient's request and feeling comfortable, performs a prayer with them, obviously with the intention of bringing spiritual comfort.

2.4.4. Final Considerations

The medical act must be exercised with ethics and wisdom, guided by scientific knowledge acquired through long periods of study and the

proper interpretation of data obtained during the clinical consultation. This practice involves a compassionate gaze, active listening, mutual respect, and the use of all this information in favor of the patient's integral health. Thus, the dilemmas and possible ethical challenges arising from the interaction between patient and physician, especially in the R/S approach, can be avoided and frequently resolved.

2.4.5. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Section 3:

Approaches, Interventions and Conduct after Spiritual Anamnesis



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Chapter 3.1

Interventions and Clinical Conduct in Religiosity and Spirituality



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3.1.1. Approach to Interventions and Clinical Conduct in Religiosity and Spirituality

Religious and/or spiritual interventions (RSI) are conventionally conceptualized as a set of complementary therapeutic strategies for health, based on the stimulation and development of the spiritual dimension of individuals. RSIs intent to: promote a deep understanding of life/existence; foster reflective discussion of personal values, R/S beliefs, and spiritual transcendence; stimulate faith and participation in religious practices and/or traditions; provide greater knowledge regarding health status and better acceptance of illnesses; provide social/emotional support to patients and family members; increase treatment adherence; achieve better clinical outcomes; and deepen and improve the quality of care and patient/family satisfaction. Additionally, they can assist in the control of cardiovascular risk factors and improve cardiometabolic treatment results (e.g., blood pressure and glycemic control). Furthermore, RSIs can be utilized by healthcare professionals themselves to improve their own health and professional activity (e.g., reduction of stress

and burnout).^{1,2}

Over the last three decades, RSIs have been widely researched with promising results. Despite extensive literature evaluating correlations and/or associations between R/S and health, specific diseases, and treatments, available clinical evidence indicates that RSIs should be used as a complementary (rather than substitutive) strategy for patient treatment. RSIs require more research to achieve broad standardization in treatment guidelines and protocols, particularly regarding target populations, frequency, and duration.³⁻⁸

It is important to clarify the terms frequently used in RSI:^{9,10}

- **Spiritual care:** Represents an interactive, intentional, multifaceted process with a therapeutic nature, involving the assessment, identification, guidance, and pursuit of meeting the individuals' R/S needs. It is an important medical aspect of daily clinical care, patient-centered, and necessary for disease management. Care is closely related to the understanding of R/S, moral skills, self-awareness, and professional training for the adequate provision of RSIs.
- **Spiritual support:** Has an intrapersonal nature, based on an intimate and emotional

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relationship with a higher power or the divine. It also refers to an interpersonal phenomenon involving the connection and interconnection of the spiritual/transcendent with other people and the environment. It is a spiritual intervention performed on hospitalized and/or critical care patients. In the United States, it is generally provided by chaplaincy, the nursing team, and/or the palliative care team.¹¹

- **Spiritual distress/anguish:** A disconnection from oneself, others, and God/the transcendent, usually secondary to the disruption of the individual's religious/spiritual belief system (Re/Es). It is a serious situation, expressed by a lack of meaning/purpose in life and negative feelings, and is associated with difficult life moments (e.g., traumatic events, severe/terminal illness, etc.). It is also referred to as existential distress, existential suffering, spiritual pain, or spiritual struggle. Table 1 presents the characteristics, feelings, and factors associated with spiritual distress/anguish, which must be considered for an appropriate Re/Sp intervention in these patients.¹²⁻¹⁴

- **Spiritual comfort:** A positive feeling for

the patient, immediate and associated with a sense of inner peace, with a perception of spiritual well-being, quality of life, and satisfaction with life, and positive feelings upon receiving support. It generally involves gratitude, hope, comfort, and a sense of well-being on the part of the patients. It can be stimulated/worked upon by a family member, healthcare professional, chaplaincy, and/or a faith-based organization.^{9,13,15}

- **"Spiritual healing":** A considerably controversial topic, including its definition. It has been defined as a systematic and purposeful intervention performed by one or more people ("healers"), aiming to help another person through a focused intention to improve their condition via thought ("mental force"), manual contact, and/or "passes." In spiritual healing, it is considered that unconventional energetic, mechanical, and/or chemical interventions can affect matter and promote body regeneration. Regardless of its popular use, there is no robust scientific research on the subject, nor empirical evidence regarding protocols, application methods, or results. Therefore, it will not be addressed in this book.¹⁶⁻¹⁸

Table 1 — Characteristics of spiritual distress/anguish.¹²⁻¹⁴

Components of Suffering/Affliction	Feelings Involved	Factors to Consider
RELIGIOUS: • Highly personal, existential, and deeply subjective. • Possible association with negative religious traditions/experiences. • Feeling of guilt caused by the violation of moral codes and/or religious values/tradition (e.g., abortion; adultery; etc.). • Exacerbated self-criticism (e.g., guilt for not taking care of oneself). • Conflicting belief systems and/or the belief that God is disappointed with a behavior (past or present).	→ Anger. → Resentment. → Fear. → Anxiety and frustration. → Loss/fragility of the meaning of life. → Despair/hopelessness. → Fragility. → Vulnerability. → Loss of inner peace. → Demoralization.	→ Degree of activity (social, cultural, religious, spiritual). → Past strategies and illness coping mechanisms. → Morality and worldview. → Intercultural attributes. → Perception of the environment. → Behavioral disengagement and difficulty connecting with others. → Spiritual practices: prayer; religious/spiritual literature; participation in rituals and religious practices. → Dysfunctional coping strategies. → Association with depression. → Disproportionate anxiety. → Awareness of terminality/death. → Quality of life, spiritual well-being, and general well-being.
SPIRITUAL: • Pain and fear associated with uncertainties regarding the future. • Troubled or interrupted relationships. • Shame due to physical, financial, and/or social aspects. • Low experience of joy. • Lack of hope and prospects for the future. • Concerns regarding the relationship with the divine/transcendence. • Feelings of abandonment by family or others. • Self-questioning ("Why me?"). • Isolation/loneliness.		

The process of spiritual care involves a series of intrinsically linked phases that must be respected:^{2,8,19}

- 1) It must be initiated through a consultation involving a spiritual anamnesis/history.
- 2) It requires the identification and understanding of the specific spiritual needs and resources of the patient and family.
- 3) An individualized spiritual treatment/care plan must be developed, including evaluating the need for involvement of other healthcare and spiritual care professionals. The needs and proposed RSIs must be recorded in the patient's medical record.
- 4) The patient approach regarding RSIs must be conducted with sensitivity, respect, and alignment with their religious practices.
- 5) Facilitate access to and/or provision of spiritual care.
- 6) The physician must monitor the provision and evaluate the results of the RSIs provided.
- 7) Routine reassessment is required to identify new intervention needs.

It is fundamental that the integration of RSIs into medical routine is conducted ethically, respectfully, and centered on the patient's needs and desires, always based on scientific evidence and, when appropriate, with the support of chaplains, religious leaders, and/or a multidisciplinary team. For the indication of RSI as a complementary therapy, the following are fundamental and mandatory:²⁰⁻²²

- Clearly inform the patient that RSIs are complementary measures and do not replace conventional (traditional) treatments.
- Respect patient autonomy, as participation in RSIs must always be by free choice and consensual.
- Inform the patient that performing or not performing RSIs will not interfere with any proposed treatment nor modify the routine of their consultations/evaluations.
- The physician must avoid proselytism and not use their position to promote their own religious beliefs.
- Provide clear information about interventions and possible additional Re/Sp resources, as well as knowing how to guide and facilitate the access and participation of chaplains and

religious leaders from different traditions.

- Respect non-religiosity and/or atheism, offering other forms of support for well-being and coping.
- Maintain continuous vigilance over the progression of Re/Sp treatment, primarily to confirm progress: when good, it provides spiritual comfort and well-being; when poor, worsening or the occurrence of spiritual distress/anguish occurs, a situation requiring immediate intervention (particularly in patients with mental disorders).

Figure 1 presents a flow chart demonstrating the basic principles of spiritual care process integration, starting at the time of consultation with a spiritual anamnesis, the timing/method for initiating R/S interventions, and the need for monitoring progression.^{8,19,22-24}

The main RSIs used and/or studied in medicine can be divided into:^{4,16,23,25-30}

1) Prayer practice: Considered a cognitive/behavioral strategy used as a complementary therapeutic intervention to promote positive religious-spiritual coping and connection with a sacred/transcendent dimension, as well as providing well-being, comfort, and hope. The main types of prayer are: petition, invocation, thanksgiving, dedication, supplication, intercession, confession, penitence, and blessing prayers. Topic 3.3.2.1 of this book details the particularities of prayer practice and its use as an intervention.

2) Meditation practice: Meditation is a procedure that uses specific techniques for attention control, involving temporarily diverting attention from the outside world with silencing and the harmonization of thoughts in order to focus on the chosen theme for meditation. There are different meditation practices, including those directly linked to religious traditions, those seeking connection with spirituality without a religious connotation, and those proposed as purely mental training, disconnected from R/S. Topic 3.3.2.2 of this book delves into explanations about meditation, its types, and its use as an intervention.

3) Mindfulness meditation practice: A specific meditation technique centered on self-knowledge; it does not require any specific

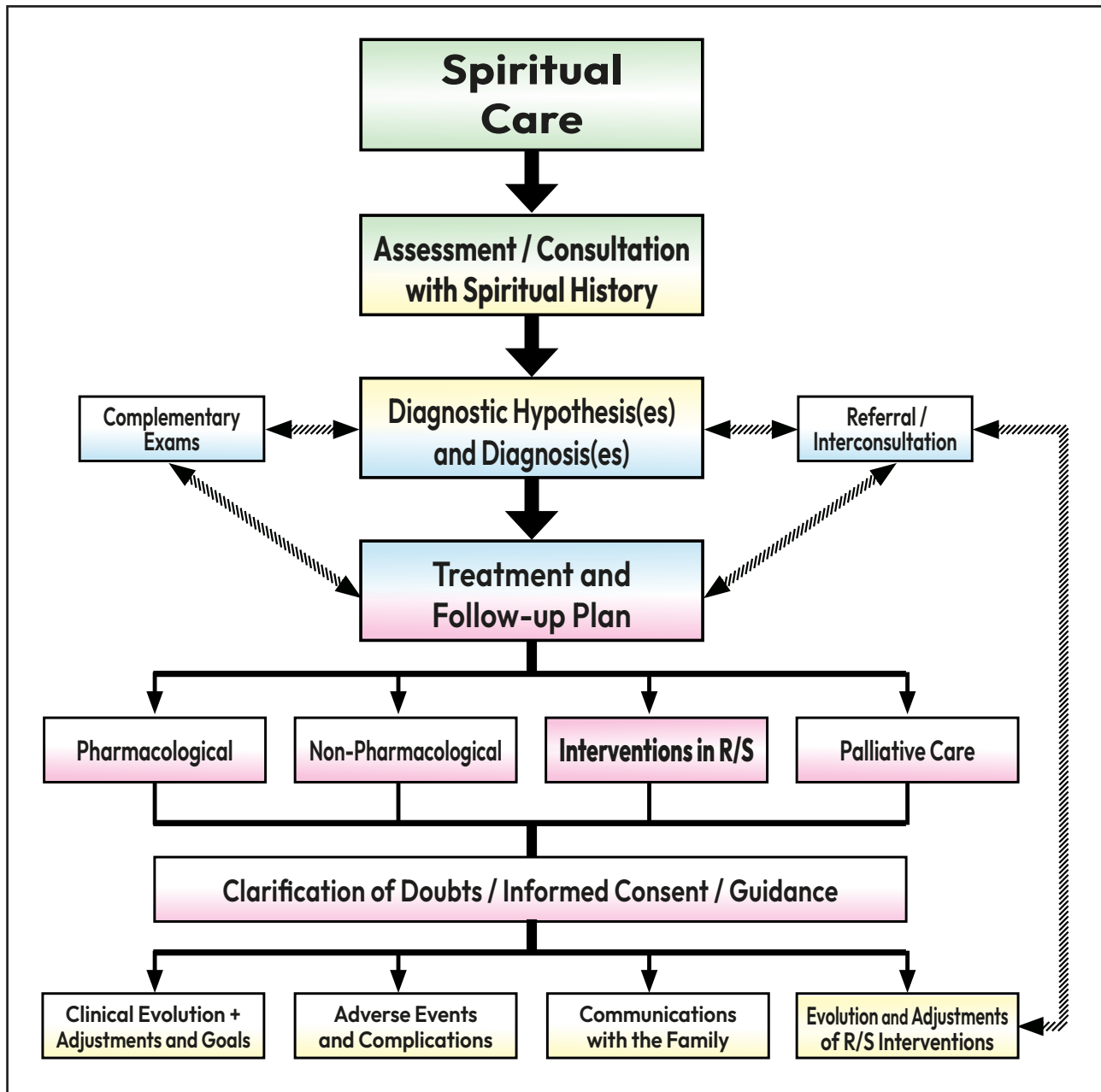


Figure 1 — Flowchart demonstrating the basic principles of the process of integrating spiritual care into clinical practice.^{8,19,22–24} R/S: religiosity and spirituality.

religious/cultural belief system and encourages individuals to promote their awareness, clear thinking, and emotional balance, cultivating compassionate attitudes through daily contemplative practices. Topic 3.3.2.3 of this book provides a detailed account of the origin of mindfulness, its use as an intervention, and its limitations.

4) Religious rituals and practices: Participation in religious gatherings/ceremonies (e.g., masses, services, baptism, funeral rites) provides a strengthening of faith, an increased sense of

community, and serves as a source of comfort and spiritual connection.

5) Pastoral counseling and spiritual support: Pastoral/religious counseling seeks to provide guidance, comfort, and emotional support through religious leaders (priests, pastors, rabbis, imams, etc.). One of the most common examples is the visit of religious leaders and/or members of the religious community to the hospital or the patient's home for prayer, reading of sacred texts, and spiritual support. Another possibility is the participation of the health

professional in Re/Sp support groups to offer and receive emotional and spiritual support.

6) Integrative approaches considering spirituality: A holistic health approach requires working on the interconnection between physical, mental, and spiritual health, integrating practices that nurture all these dimensions. In this context, psychotherapy incorporating Re/Sp is a strong resource for coping, searching for meaning, and healing (without imposing beliefs). An example of integrative RSI is the use of herbs and natural remedies intrinsically linked to patients' spiritual beliefs and practices.

7) Interventions through faith-based organizations: Faith-based communities/organizations can actively participate in providing interventions by promoting mental and spiritual well-being (e.g., support groups for bereaved individuals or those with chemical dependency), providing spiritual and pastoral support in moments of vulnerability, promoting healthy lifestyles and healthcare, and offering compassionate support to those in need (e.g., providing shelter, food, etc.). Topic 3.2.3 of this book presents in detail the activities of faith-based organizations and how to access this support.

8) Individual interventions and devotional practices: Although less frequently addressed, these may be some of the most frequently performed in a common way. Among them are: religious fasting for the purpose of healing or spiritual strengthening; religious promises and vows related to health (offering/promising to perform an activity or donation to obtain health blessings or as a way of thanking for healing); therapeutic writing focused on spiritual themes (to explore issues of faith, find meaning in suffering, or express gratitude); guided readings of religious/spiritual content (to promote inner peace and well-being); and religious pilgrimages with the intention of healing or giving thanks (travel to a sacred site seeking healing, spiritual strength, or expressing gratitude for a recovery).

9) Interventions with chaplain participation: Chaplains can act in individual care for inpatients or by participating in multidisciplinary teams. Their participation generally allows for the integration of deeper Re/Sp knowledge into discussions about the patient's care plan, offering a greater spiritual

perspective and assisting in emotional support, particularly in patients with severe/terminal illnesses and their families. Another important point regarding chaplains is guidance on prayer and/or support for special religious celebrations focused on health and providing spiritual comfort to patients. Topic 3.2.2 of this book details the activities, training, and importance of chaplains.³¹

10) Psychiatric interventions with a spiritual focus: The role of the psychiatrist in R/S and regarding RSIs is multifaceted, including differentiation between spiritual experiences and psychiatric symptoms; suspicion of comorbidity between Re/Sp conditions and mental disorders; and the need for advanced psychiatric conducts and therapeutics specifically for severe/terminal patients. Topic 3.3.1 delves into these issues and the particularities of R/S in mental disorders.³²

11) Interventions in palliative care/terminality: The palliative care team plays a fundamental role in supporting and providing RSIs for patients with severe and/or terminal illnesses. Identifying the patient's beliefs, practices, and sources of meaning can help them experience the remainder of life with dignity, autonomy, and a prospect of finding spiritual peace. RSIs include: support for religious, farewell, and faith-based grieving rituals; discussion of existential and spiritual issues related to death and dying; and offering opportunity and safe space for the patient and their family to explore their beliefs about life after death.^{11,20}

12) Use of religious media: Involves using any form of communication through which messages, teachings, or practices related to R/S are transmitted and/or received. Media can be produced by religious institutions, non-governmental organizations, or individuals, aiming to disseminate religious beliefs, values, and practices. It performs functions such as providing religious instruction, offering emotional support, promoting participation in religious communities, and addressing moral and social issues. Research has explored how religious media consumption can influence illness coping, adherence to medical treatments, health-related decision-making, and the impact on mental health (anxiety, depression, and stress). It includes a wide

range of formats with religious content, such as: religious radio and television programs, films, music, books, websites, podcasts, and social media.^{33–35}

It is important to emphasize the role of psychological constructs and resources, which are internal qualities and capacities of people that can be mobilized to face challenges and promote well-being and the treatment process, including as RSIs. They generally act as protective factors against stress and psychopathology, contributing to more robust mental health. However, when in imbalance (low levels or absent), they can also play a role in maintaining maladaptive states and spiritual distress/anguish. Table 2 presents the main constructs and resources, a brief description of them, their importance, effect on RSIs, and an example of their role in health and well-being. Chapter 3.4 on the approach to spirituality regarding hope, dignity, compassion, gratitude, and forgiveness provides a deeper exploration of this importance.^{2,5,36}

The perception of the outcome of an RSI is complex, involving individual beliefs and the interaction between faith and possible observed outcomes, including health worsening. From the perspective of spirituality, the patient may interpret good progress as: feeling a sense of comfort, acceptance, peace, or inner strength, even if their physical condition has not changed; a sense of discernment or divine guidance/help regarding their treatment, life, and/or illness coping; and an experience of personal and spiritual transformation with changes in life perspectives/values and/or a strengthening of faith (even without direct physical healing).^{71–73}

However, patient/family reactions when RSIs do not meet the created expectations may involve: a decrease in R/S (partial or significant); no change; or an increase (partial or significant). The physician must assist the patient in understanding that RSI is a complementary treatment, which generally positively influences emotional and psychological well-being but has its limitations. In cases of disproportionate/self-destructive emotional reactions, it is advisable to investigate the concomitance of psychological/psychiatric disorders (e.g., hypochondriasis,

panic disorder, and anxiety and depression disorders), including referral for evaluation by a psychiatrist.^{74–76}

3.1.2. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Meet the Spirituality and Cardiovascular Medicine Study Group (GEMCA/SMC/SBC) of the Minas Gerais Society of Cardiology.



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Table 2 — Characteristics of the main psychological constructs and resources.^{2,5,36}

Construct/Resource*	Brief Description	Importance/Effect	Example
Self-efficacy ^{37,38}	A person's belief in their own capacity to organize and execute the courses of action required to produce given attainments. In other words, it is the confidence in one's own ability to succeed in specific tasks and achieve goals.	• Recover more rapidly from setbacks. • Experience less anxiety and depression. • Establish more challenging goals. • Persist longer in the face of obstacles.	An individual with high self-efficacy regarding anxiety management may believe they are capable of employing relaxation techniques to achieve self-calming in stressful situations.
Hope ^{39,40}	A motivational state, a type of thought process involving a positive emotion associated with an expectation of a different future.	• Greater motivation and perseverance in the pursuit of goals. • Enhanced coping with challenges and adversities. • Greater psychological well-being and life satisfaction.	A person with hope in the face of a chronic illness may believe that treatments are available and that they are capable of adhering to medical recommendations to improve their quality of life.
Optimism ^{41,42}	A positive expectation motivated by concrete external reasons, leading the individual to believe that good things will occur.	• Better physical and mental health. • Greater resilience to stress. • Greater success in various areas of life. Improved mood and lower levels of depression.	An optimistic person may believe that, despite a health-related setback, new opportunities will arise.
Resilience ^{43,44}	The capacity to adapt positively to situations of adversity, trauma, tragedy, threats, or significant sources of stress. It is not merely a matter of "returning to normal," but rather of growing and becoming stronger from the experience.	• Maintaining healthy psychological functioning in the face of stress. • Recovering from traumatic events. • Finding meaning and growth amidst difficulty.	A resilient individual who is ill may aim new treatment opportunities and learn from the experience.
Self-compassion ^{45,46}	The ability to be kind and understanding toward oneself in moments of suffering, failure, or inadequacy, rather than being self-critical and harsh.	• Lower self-criticism and rumination. • Lower levels of anxiety and depression. • Greater emotional well-being and life satisfaction. • Greater motivation for personal growth.	Instead of harshly criticizing oneself for making a mistake, a self-compassionate individual recognizes that to err is human and try to learn from the situation.
Empathy ^{47,48}	The capacity to understand and share the feelings of another person, placing oneself in another's position and recognizing their perspectives.	• Building healthy and meaningful interpersonal relationships. • Promoting compassion and altruistic behavior. • Improving communication and conflict resolution.	An empathetic individual is capable of perceiving a friend's sadness and offering support and understanding, including during times of illness.
Forgivingness ^{49,50}	The process of releasing negative feelings, such as anger, resentment, and the desire for revenge toward someone who has caused harm or offense. It does not necessarily imply reconciliation or forgetting the occurrence.	• Reduction of stress and anxiety. • Improvement of physical and mental health. • Strengthening of relationships. • Greater emotional well-being.	A person who has been betrayed may, over time, choose to release resentment and move forward, even if they do not return to the previous relationship.
Gratitude ^{51,52}	The tendency to recognize and appreciate the positive aspects of life and the benefits received from others or the world.	• Greater happiness and life satisfaction. • Enhanced mood and optimism. • Strengthening of social relationships. • Increased resilience to stress.	Maintaining a gratitude journal, by daily listing things for which one is grateful, can enhance overall well-being.
Autonomy ^{53,54}	The sense of having control over one's own actions, choices, and life direction. It involves feeling capable of making independent decisions and acting in accordance with one's own values and desires.	• Greater intrinsic motivation and engagement in activities. • Greater sense of responsibility and ownership over one's own life. • Improved psychological well-being and life satisfaction. • Lower probability of developing symptoms of depression and anxiety.	An individual who feels autonomous in medical treatment possesses the freedom to decide how and which treatments to pursue and perceives that their opinions are valued. This leads to greater treatment engagement and satisfaction with the care received.

Table 2 (Continued) — Characteristics of the main psychological constructs and resources.^{2,5,36}

Construct/Resource*	Brief Description	Importance/Effect	Example
Purpose in Life ^{55,56}	A clear sense of direction, goals, and significance that give meaning to existence. It involves feeling that life has intrinsic value and that one is contributing to something greater than oneself.	• Greater resilience in the face of challenges and adversities. • Improved physical health and longevity. • Enhanced psychological well-being and happiness. • Increased motivation to pursue goals and overcome obstacles.	An individual who finds purpose in their volunteer work for an organization that assists ill children feels that their life has meaning and experiences greater personal satisfaction.
Creativity ^{57,58}	The capacity to generate new and original ideas, approaches, or solutions. It involves thinking “outside the box” and finding innovative ways to handle situations.	• Solve problems effectively. • Express emotions and experiences in a unique manner. • Find new perspectives and meanings in life. • Increase the sense of self-efficacy and achievement.	A person who lost their employment due to an illness utilizes their creativity to initiate a new business with limited resources, demonstrating how this skill can serve as a significant coping resource.
Sense of Humor ^{59,60}	The capacity to perceive, appreciate, and express what is humorous, amusing, or incongruent. It involves the ability to find lightness and laughter even in challenging situations.	• Reduce stress and tension. • Enhance and promote positive emotions. • Strengthen social bonds and communication. • Assist in coping with adversity and maintaining perspective.	In a moment of family tension, a well-placed joke can alleviate the atmosphere and help resolve the conflict in a lighter manner.
Patience ^{61,62}	It involves maintaining composure and perspective in challenging situations and the ability to tolerate delays, difficulties, frustrations, or suffering without becoming excessively anxious, irritable, or impatient.	• To reduce stress and anxiety in situations of waiting or difficulty. • To make more deliberate and less impulsive decisions. • To maintain more harmonious relationships. • To persevere in the face of obstacles and achieve long-term goals.	A patient waiting in line for a blood sample collection remains calm and occupies her time reading a book, instead of becoming irritated by the delay.
Assertiveness ^{63,64}	The ability to express one's thoughts, feelings, needs, and opinions in a clear, honest, and respectful manner, without aggressiveness or passivity.	• Improved communication and conflict resolution. • Healthier and more balanced relationships. • Greater self-esteem and self-confidence. • Reduction of stress caused by unmet needs.	An assertive person in a relationship expresses their feelings clearly and respectfully when feeling hurt, rather than harboring resentment or exploding in anger.
Social Connection ^{65,66}	The feeling of belonging to a group or community and the presence of significant and supportive social relationships.	• Lower risk of depression, anxiety, and isolation. • Greater well-being and happiness. • Better coping with stress and adversity. • Increased longevity.	A person who actively participates in a group of friends or a religious community feels connected and supported, contributing to their emotional well-being.
Self-Knowledge ^{67,68}	The deep understanding of one's own thoughts, feelings, values, strengths, limitations, and behavioral patterns.	• Making decisions more closely aligned with one's own values and goals. • Developing more authentic relationships. • Identifying and modifying dysfunctional behavioral patterns. • Promoting personal growth and self-compassion.	A person who possesses a high degree of self-awareness is able to identify their stress triggers and develop effective strategies to cope with them.
Dignity ^{69,70}	The way in which an individual feels, thinks, and behaves in relation to their inherent self-esteem and extrinsic self-esteem, associated with other people.	• To promote self-esteem and self-confidence. • To foster resilience. • To promote and influence healthy relationships. • To motivate ethical behavior. • To contribute to emotional well-being and the search for purpose in life.	After receiving criticism at work, an individual with a strong sense of dignity recognizes the feedback as constructive input rather than an attack on their essence, thereby maintaining their self-esteem.

* The selection of these constructs and psychological resources was based on information obtained through the literature review conducted by the authors of the book, and the examples are merely illustrative.

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Chapter 3.2

Learning Spirituality in Medicine and the Role of Chaplaincy and Faith-Based Organizations

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Chapter available
in Portuguese.

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3.2.1. Learning Spirituality and Training in Spiritual Care in Medicine

Throughout all previous Chapters of this book, relevant scientific evidence has been presented regarding the role of religiosity and spirituality (R/S) in medical practice, including the provision of spiritual care (SC). Today, physicians and other healthcare professionals, organizations, researchers, public managers, hospital administrators, and patients/family members agree that R/S and SC are important components in health promotion and should be offered and integrated across all levels of medical assistance.¹⁻⁶

The primary benefits described in the literature include: spiritual well-being; higher quality of life and life satisfaction; improvement in physical/mental health; increased resilience; lower levels of depression and anxiety; greater adherence to treatments and healthy lifestyles; increased willingness for effective control of risk factors for cardiovascular diseases (CVD), metabolic diseases, and cancer; and a greater sense of comfort, support, and quality of care received.⁷⁻⁹

Barriers to the integration of spirituality

and SC into medical care exist, including: lack of or even inadequate training of professionals; lack of awareness that interventions/SC must be monitored by the physician; perception of a lack of time to address R/S and plan SC with the multidisciplinary team while prioritizing other conducts; low personal sense of spirituality in the professional; confusion between spirituality, religiosity, and religion; issues regarding time and costs involved in R/S training; lack of perceived direct and immediate professional gain (primarily financial); and lack of institutional support for the adoption of SC.^{1,10,11}

However, in recent decades, there has been a growth in medical education regarding Integrative and Complementary Health Practices (PICSS) within the SUS (Unified Health System), including homeopathy and acupuncture, following the current understanding of the human illness process and the need to increase therapeutics in accordance with the patients' own conceptions and beliefs. The dissemination of philosophical-spiritual approaches can contribute similarly to the understanding of meaning in the treatment of the patient-disease binomial.¹²

Studies have demonstrated that learning

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about R/S provides medical students and physicians with:¹

- Increased self-confidence and competence in addressing patients' spiritual needs.
- Greater willingness to incorporate spiritual assessment into clinical practice.
- Improved communication with patients regarding spiritual issues.
- Greater sensitivity and empathy regarding patients' integral health needs.
- Better decision-making aligned with patients' beliefs.
- Improved complementary integration of spiritual care into the treatment plan.
- Improved emotional disposition and well-being, reduced professional stress, and lower risk of burnout.
- Improved physician-patient-family relationship and patient satisfaction with the care received.

The form, frequency, and content of spirituality teaching in undergraduate medical education vary greatly between countries. A study conducted in US medical schools observed that in 2010, 90% taught activities related to R/S, of which 73% were content within mandatory courses on PICSs or alternative and complementary medicine (ACM), and 7% were mandatory subjects with content specifically dedicated to the topic. In the United Kingdom, a survey answered by 53% of consulted schools showed that 59% of institutions provided some form of teaching in the field of spirituality, typically in the form of lectures, group discussions, patient interviews, shadowing chaplains, and specific readings. In Brazil, a survey answered by 47.7% of medical schools indicated that only 10.5% offered specific subjects on R/S, 40.7% had courses or events on the R/S topic, and only two schools offered courses involving practical training.¹²⁻¹⁵

The recommended pedagogical content for effective R/S learning (theoretical/practical) varies greatly but frequently includes the following topics:¹⁶

1) Fundamental concepts of spirituality and religiosity: Definitions, distinctions, and the breadth of these terms, including religious and non-religious dimensions.

2) The importance of spirituality in health and disease: Addressing current scientific evidence; critical analysis of methodological research limitations and the complexity of causal relationships; exploration of mechanisms by which R/S may influence health; impact on treatment-seeking behavior and adherence to medical recommendations; and the role of faith, hope, and resilience in coping with terminal illnesses.

3) How to conduct a spiritual anamnesis/history: Methods, tools, and scales for assessing patients' spiritual beliefs and needs (e.g., FICA, HOPE, SPIRIT); necessary adaptations to different clinical contexts (initial consultation, follow-up, palliative care).

4) Sensitive and empathetic communication: Developing communication skills to address spiritual issues non-invasively, exploring religious and spiritual beliefs and practices while avoiding judgment and bias. This involves the application of empathy, compassion, active listening, appropriate language, correct response to expressions of faith, and how to handle spiritual suffering.

5) Developing knowledge and respect for the diversity of beliefs: Understanding and respecting the wide variety of beliefs, practices, and rituals of various religions (e.g., Christianity, Islam, Judaism, Buddhism, Hinduism, etc.), other forms of spirituality, as well as the absence of belief.

6) Ethics and spirituality in patient care: Ethical considerations when addressing spirituality, including professional boundaries, respect for patient autonomy and confidentiality, and avoiding religious proselytism.

7) Learning how to respond to spiritual suffering: Identifying signs of spiritual suffering (verbalizations, behaviors, and non-verbal signs); offering appropriate support; informing and facilitating patient access to available spiritual support resources (e.g., hospital chaplaincy, local religious leaders).

8) Spirituality in palliative care and end-of-life: The role of spirituality in coping with severe chronic illness and terminality, as well as support for patients/family members; working together with other spiritual care professionals to meet specific needs; grief support.

9) The spirituality of the healthcare professional: Reflection on one's own spirituality (self-knowledge), recognition of limitations, and how they may influence patient care.

10) Supervised practical training: Training by professionals experienced and sensitive to the religious/spiritual (Re/Es) dimension, including: shadowing/performing clinical consultations with supervised spiritual anamneses; shadowing patients in palliative care; simulations and group discussions; visits to faith-based organizations; and volunteer work in religious communities.

International and national literature presents a wide and varied approach to the possibilities of teaching spirituality and SC.¹⁷ R/S learning in medicine can be integrated into different stages of medical education and through a variety of pedagogical approaches:^{18,19}

1) Integration into the undergraduate medical curriculum through:

- **Specific curricular subjects:** Elective or mandatory, ideally theoretical-practical and focused on R/S and health, bioethics, and medical humanities. When teaching occurs as a mandatory subject, it ensures standardized access for all students to essential knowledge and indispensable R/S competencies.

- **Transversal integration:** Incorporation of spirituality-related themes into other clinical subjects (general medicine, oncology, mental health/psychiatry, and palliative care). If teaching occurs only in a fragmented way, there may be limitations regarding the learning standard.

- **Academic leagues:** Representing a growing trend in Brazilian medical education, primarily to fill the lack of curricular subject offerings and/or transversal integration of R/S. They may face limitations such as: heterogeneity of content; dependence on the availability of faculty and advisors adequately trained in R/S; difficulty in achieving formal recognition for the medical curriculum; and the risk of focusing only on theoretical teaching.

- **Extracurricular internships:** Valuable opportunities for deepening knowledge received through other approaches, facilitating the development of skills to integrate R/S into patient care. Limitations may include restricted

availability of positions and specialized supervisors, potential lack of standardization and integration with the formal curriculum, and dependence on student initiative and proactivity.

2) Integration into the residency/medical specialization curriculum through:

- R/S content integrated into the pedagogical program of medical residencies, especially in palliative care, psychiatry, oncology, internal medicine, cardiology, and family medicine, promoting improvements in the physician-patient relationship, understanding of patients' spiritual needs, and satisfaction with care.

- R/S courses taught additionally to residency programs in other areas, though optional for residents.

- **Seminars and Workshops (short duration):** Sessions focused on specific aspects of spirituality in the context of a medical specialty and/or disease (e.g., spirituality in mental health; spirituality in patients with cardiovascular diseases).

- **Internships in palliative care services (optional or mandatory):** Experience in palliative care offers a valuable opportunity for learning about the spiritual needs of patients with severe and terminal illnesses, as well as support for their families.

- **Support and discussion groups for residents:** Common practice in other countries (USA and UK), where residents share experiences and challenges in addressing patients' spirituality.

3) Continuing Medical Education (CME) and Continuing Professional Development (CPD) via:

- **Specific Courses and Workshops:** Short-term programs focused on spiritual assessment, communication, and ethical aspects of spirituality in patient care.

- **Conferences and Symposia:** Sessions dedicated to presenting research and information on clinical practice in the field of spirituality and health.

- **Online modules and Webinars:** Flexible formats for physicians to learn about the topic at their own pace.

- **Study and reading groups:** Physicians meeting to discuss relevant articles and books on spirituality and medicine.

- **Mentorship programs:** Physicians experienced

in spirituality offering courses with practical portions aimed at guidance and supervised training of colleagues.

- Participation in scientific research on themes and content regarding R/S and SC.

4) Post-graduate studies (in-person and/or distance learning): Recommended completion of courses recognized by the Brazilian Ministry of Education (MEC) in the following modalities:

- *Stricto sensu* (Master's and Doctorate): Rare, generally with programs in Religious Sciences and/or research lines or subjects addressing the interface between religion, spirituality, and health (e.g., Health Sciences at PUC-Campinas; Doctorate in Religious Sciences at PUC-Minas).

- *Lato sensu*: Specialization courses aimed at improving professional skills and knowledge (e.g., Spirituality and Health; Christian Spirituality and Spiritual Guidance; Integrative Mental Health: Science and Spirituality; Spirituality and Consciousness Studies, etc.).

5) Additional training/degrees in areas and themes related to R/S or its practice: Undergraduate degrees (e.g., theology; philosophy; psychology) and post-graduate degrees (e.g., chaplaincy; military chaplaincy).

Regarding SC training programs, they aim to empower healthcare professionals (including physicians) to provide spiritual and emotional support in various contexts (such as hospitals, nursing homes, prisons, religious communities), in specific clinical situations (outpatient, inpatient, ICU, among others), and for the development of advanced intervention, follow-up, and spiritual support skills. These programs may vary in duration, depth, and focus depending on the target audience and specific objectives. However, a comprehensive program generally includes the following elements:²⁰

- **Theoretical and conceptual foundations:** Including those already addressed in R/S training, but deepening the themes; the nature of spirituality; theories of spiritual development; religious and spiritual diversity; spiritual suffering; theology and ethics of spiritual care; and psychology of religion and spirituality.

- **Deepening skills in spiritual assessment/anamnesis:** Specific assessment models for constructs and components of positive

psychology; scales for various situations and changes in these constructs; and development of skills for recording relevant information from the spiritual assessment.

- **Advanced spiritual intervention and support skills:** Compassionate presence; empowerment to identify and support the patient in accessing their own spiritual resources (beliefs, practices, sacred texts, faith community); facilitation of rituals and practices; learning techniques for support in grief and loss across diverse beliefs and religions; learning mediation and spiritual conflict resolution techniques; development of collaborative capacities (with religious leaders, religious communities, faith-based organizations, etc.); and techniques for self-care, burnout prevention, and the emotional and spiritual well-being of the multidisciplinary team.

- **Practical and contextual aspects:** Multidisciplinary teamwork; adaptation of acquired skills to various specific clinical settings, such as hospitals, nursing homes, prisons, communities, palliative care, mental health, and crisis situations; research in spiritual care; and specific courses for learning SC techniques (e.g., contemplative practices such as mindfulness and meditation; reflective writing; spiritual experience diaries).

- **Personal and spiritual development:** Training for supervision and mentorship; self-reflection; case studies and analysis of real situations; reading theoretical and reflective texts; and participation in support and discussion groups among trainees.

The effectiveness of an SC training program should generally be evaluated through the demonstration of competencies in the areas of knowledge, practical skills, ability to apply interventions, professional ethics, and continuous personal development. Internationally, there are certification and/or accreditation programs offered by specific professional organizations in the field of spiritual care. In Brazil, there is not yet official legislation or recognized certifications.^{3,6}

Regardless of the starting point of training (undergraduate or as an experienced professional physician), R/S and SC learning is feasible, and the combination of different forms and methods can facilitate and ensure the development of the sensitivity, knowledge,

and skills necessary to address the spiritual dimension of patients.²⁰

A relevant point is that, after learning/training, continuous maintenance/updating of knowledge is necessary through:^{1,4}

- Scientific events: Congresses, symposia, meetings, lectures, webinars, discussions, etc.
- Group activities: Case studies, reflection groups, simulations, etc.
- Personal activities: Reading scientific content (books, articles, journals), reflective writing, reading articles, and reflective texts, etc.
- Experiential learning experiences: Mentorships, visits to religious communities, shadowing chaplaincy service activities, etc.

3.2.2. Chaplaincy

This topic presents information regarding chaplaincy in terms of its current concept, the historical development of its practice, the training and certification of chaplains (nationally and internationally), its contemporary context in individual and collective healthcare, and its relevance for patients with cardiovascular diseases.

The word chaplain comes from the medieval Latin *cappellanus*, a term designating the “priest of a chapel.” In the early centuries of the Christian church, the chaplain was an ordained member of the clergy, “originally a priest or a minister who had the responsibility of a chapel,” and was normally assigned to a specific ministry/function. For many centuries, chaplains (primarily Catholic) voluntarily provided pastoral care, sacraments, and emotional support to hospitalized patients.^{21,22}

Currently in medicine, the term “chaplains” is not limited to any specific church or religious practice; it is used to designate individuals trained, appointed, and recognized as part of a specialized spiritual care team (in specific environments) dedicated to assisting with issues of faith, meaning and purpose of life, suffering, and the spiritual well-being of the patient and family members.²³

The primary function of chaplains is to seek out and serve those who express Re/Sp needs, regardless of their religious

affiliation (or lack thereof), providing qualified, individualized care appropriate to each person’s situation/history. Their performance must be empathetic, reflective, and compassionate, allowing the individual’s pastoral, spiritual, and religious needs to be understood and met. An important point is that in some countries (e.g., Canada), spiritual care may also be known as pastoral care, which is one of the chaplain’s functions. However, the term “spiritual care practitioner” (commonly used for professionals in the mental health field) is not truly synonymous with chaplains, as they do not possess the same training and certification as chaplains.²⁴

The services provided by the chaplain, whether as a volunteer or a paid professional, can extend beyond the patient and their families to include caregivers, the healthcare professional team, and the hospital community at large (other employees, volunteers, students, etc.). In hospitals and other institutions, services provided by the chaplain or chaplaincy team are known as “chaplaincy services” and are often also referred to as the department of spiritual and religious care or pastoral care. In Brazil, chaplains are generally part of the patient’s multidisciplinary care team, working in collaboration with physicians, nurses, psychologists, and social workers to offer integral health care. Table 1 presents the main areas of chaplaincy, their responsibilities, and the details of the activities involved.^{23,25–27}

Generally, a request for chaplaincy services is made by the patient’s attending physician or by the patient themselves. The multidisciplinary team may also identify situations where chaplaincy intervention may be beneficial. Regardless of the origin of the identified need for a chaplain’s services, the patient must be informed and provide free and informed consent for this service to take place. Chaplains must always respect the autonomy and dignity of the patient, including opposing proselytism. Secrecy and confidentiality are fundamental ethical pillars in chaplaincy practice and must be strictly observed, as they form the basis of trust between chaplain/patient and are essential for providing effective spiritual support.^{28–30}

Chaplains can also connect with/act within

religious groups and faith-based communities/organizations. This situation can help in understanding specific patient needs (e.g., temporary shelter, access to transportation, assistance in treatment) and create opportunities to improve services and decrease inequalities in healthcare access. However, this group/community must also receive authorization from the patient, physician, and hospital to act and must respond to the physician's guidance and recommendations. Figure 1 of Chapter 3.1. presents a flowchart with additional aspects of chaplain participation in patient healthcare.

3.2.2.1. International Training, Certification, and Updating of Chaplains

The process of spiritual care by a chaplain at the international level, regardless of their religious and/or spiritual background, requires the completion of a specific postgraduate course, generally for a period of one year, including training focused on clinical pastoral education and practices (internship/residency) in the care of hospitalized patients. This course helps the chaplain develop the skill to provide spiritual care and counseling, both with and without the need for prayers/religious rituals, as well as an understanding of their role within a multidisciplinary hospital team addressing traditional and complementary medical treatment techniques.^{31,32}

Preparation to become a chaplain is rigorous and requires a solid academic foundation and personal spiritual development. Normally, the prerequisite is a full higher education degree with a bachelor's diploma and/or a postgraduate-level theological diploma from an accredited institution (in the United States, by the Council for Higher Education Accreditation - CHEA).³³

An example of international pedagogical content for a chaplaincy course is that of the Association of Professional Chaplains (APC) in the United States, an entity with over 10,000 members serving as chaplains, pastoral counselors, and clinical pastoral educators in various specialized settings (hospitals, prisons, military, etc.), adopted as a model in several

countries and composed of learning in:³¹⁻³³

Section 1 — Chaplaincy Care with Recipients: Assessment of relevant information regarding the spiritual, religious, emotional, and relational needs and resources of the recipient; provision of care to promote well-being; documentation of care in the form of an appropriate record structure of relevant information; teamwork and collaboration; ethical practice including adherence to the APC Code of Ethics and other codes of ethics as required by the chaplain's professional environment to guide decision-making and professional behavior; respect for confidentiality of information from all sources, including the care recipient, legal or organizational records, and other care providers as per laws, regulations, and standards; respect for diversity of beliefs, cultures, and/or identities.

Section 2 — Chaplaincy Care for the Organization: Care for employees and affiliates of the organization through individual and group interactions; chaplaincy care consistent with the values and mission statement of the organization; and leadership notions within their environment and profession.

Section 3 — Maintaining Competent Chaplaincy Care: Continuous quality improvement seeking to enhance the practice of chaplaincy care; personal scientific updating through reading and reflecting on current research and professional practices and, when feasible, collaborating on research studies; knowledge and continuing education; the role of technology in enhancing care delivery and promoting the profession's work; and appreciation and utilization of business principles, practices, and regulatory requirements appropriate to their role.

Clinical Pastoral Education (CPE) is the primary training course for chaplains recognized in the USA and Australia. It typically has a minimum duration of 400 hours, of which theoretical/didactic instruction requires a minimum of 100 hours. The remaining hours are dedicated to direct clinical practice with individual and group supervision.^{34,35}

After completing the course, the chaplain must seek certification (generally through a specific examination) to validate their specialized competencies, attesting that they have reached a standard of training and

Table 1 — Main areas of operation, duties, and detailed description of chaplains' activities.^{23,25–27}

Attribution*	Activity Details
Field of Action – Direct Spiritual and Pastoral Care	
Spiritual assessment	Identify individuals' spiritual and religious needs, resources, and concerns. This includes understanding their beliefs, values, practices, and sources of meaning and hope. During the spiritual assessment, the chaplain may perform a spiritual anamnesis, which, however, typically differs from and does not replace the one conducted during a medical consultation.
Spiritual counseling and guidance	Provide individual support to help individuals explore their spiritual journeys, address religious doubts, and find meaning in their experiences, especially in times of crisis, illness, or terminality.
Active listening and presence	Offer an empathetic and non-judgmental presence to those who are suffering or lonely.
Prayer and rituals	Offer prayers, blessings, sacraments, and other religious rituals appropriate to the individual's faith tradition and with their consent.
Facilitating religious practices	Assist individuals in connecting with their faith by organizing visits from their own clergy, providing religious materials, or creating opportunities for worship and religious observance.
Grief and loss support	Offer spiritual and emotional support to individuals and families experiencing loss and bereavement, helping them live out their spiritual beliefs and find comfort.
Crisis intervention	Provide immediate spiritual and emotional support during emergencies, traumas, and critical incidents to the patient/family.
Ethical consultation	Provide a spiritual and ethical perspective in health decision-making, especially in complex situations involving end-of-life care, informed consent, and moral/religious dilemmas.
Advocacy	Advocate for the spiritual and religious needs of patients and ensure that their values are respected in care planning.
Area of Expertise – Institutional and Social Functions/Collaboration	
Interdisciplinary team	Collaborate with physicians, nurses, social workers, psychologists, and other healthcare professionals to provide comprehensive healthcare, particularly regarding the spiritual dimension.
Staff support	Provide spiritual and emotional support to the healthcare team experiencing stress, burnout, and moral distress.
Education and training	Provide education to the staff on religious and cultural sensitivity, spiritual care practices, and the role of the chaplain.
Development of policies and procedures	Contribute to the development of organizational policies and procedures that are sensitive to the spiritual and religious needs of patients, families, and staff.
Community relations	Serve as a liaison between the organization and the religious/spiritual community, building relationships with local religious leaders.
Research and evaluations	Participate in research projects to evaluate the effectiveness of spiritual care and contribute to evidence-based chaplaincy practice.
Documentation	Maintain chaplaincy records with confidential documentation of spiritual care interventions in accordance with professional standards and organizational policies.
Area of Expertise – Specific Activities in Different Contexts	
Hospitals	Visiting patients, responding to referrals, leading religious services, supporting families during crises, maintaining "faith spaces," and participating in ethics committees.
Military	Providing spiritual guidance to military personnel and their families, conducting religious services in diverse environments, offering support during missions and combat, and addressing issues of moral injury.
Palliative care	Providing spiritual and emotional support to patients and families, assisting them in finding meaning, peace, and comfort in the face of life's finitude, while respecting their beliefs and values.
Correctional facilities	Conducting religious services, counseling inmates, providing support during reintegration, and addressing spiritual and ethical issues related to incarceration.
Schools and colleges	Providing pastoral assistance to students and staff, offering guidance on ethical and spiritual development, and facilitating interfaith dialogue.
Companies and workplaces	Providing confidential support to employees facing personal or professional challenges, promoting well-being, and mediating conflicts.

** Main duties of chaplains; however, each hospital/organization may add competencies in accordance with the services provided, its mission, and the chaplain's capacity/training.*

commitment to qualified practice. Since 2004, six distinct international entities (Association of Professional Chaplains; American Association of Pastoral Counselors; National Association of Catholic Chaplains; Neshama: Association of Jewish Chaplains; Canadian Association for Spiritual Care; ACPE: The Standard for Spiritual Care & Education) established and began adopting minimum standards for conducting the chaplain certification exam. Currently, certification aims to evaluate the acquired theoretical/practical competencies and must meet at least the following criteria:³⁶

- Test a set of competencies (theoretical/practical) based on scientific evidence.
- Be auditable with demonstrable validity and reliability.
- Be capable of direct observation of chaplains in clinical practice.
- Be subject to reliable scoring based, in part, on behavioral criteria.
- Minimize costs and be as efficient as possible.

In the United States, a chaplain who obtains certification is referred to as a “board-certified chaplain,” while Canada adopts a different term: “certified spiritual care practitioner.” Additionally, every 1-5 years, depending on the country or professional entity, certified chaplains must:^{21,36}

- Participate in 50 hours of continuing education to ensure they remain current and capable within the complex and rapidly changing scenarios of medicine and hospital services.
- Undergo peer reviews to reflect on their professional practice and receive feedback from fellow chaplains.
- Demonstrate a good relationship with the religious community through endorsement, a letter of recommendation, or an equivalent issued by religious leader(s) in the locality where they serve.

3.2.2.2. Brazilian Training, Certification, and Professional Updating of Chaplains

It is important to consider that for a portion of the Brazilian population, chaplaincy continues to be associated with a religious ministry linked

to specific religious denominations (primarily Christian, specifically Catholic) and maintains ecclesiastical recognition/credentials associated with its own position or activity.

Currently, there is no federal law that comprehensively institutes and regulates the profession of chaplain, as occurs with other higher-education professions. However, several laws mention and ensure religious assistance, which represents one of the primary activities of chaplains in certain contexts:

- 1988 Federal Constitution, Article 5, Clause VII: Guarantees, “under the terms of the law, the provision of religious assistance in civil and military entities of collective confinement.” This constitutes the legal basis for the activity of chaplains in hospitals, prisons, etc.³⁷

- Law No. 9,982, of July 14, 2000: Provides for the rendering of religious assistance in public and private hospital entities, as well as in civil and military penal establishments: “Art. 1. Access to public or private network hospitals, as well as to civil or military penal establishments, is guaranteed to religious practitioners of all confessions to provide religious care to internees, provided it is in common agreement with them, or with their family members in the case of patients who are no longer in possession of their mental faculties. Art. 2. Religious practitioners called to provide assistance in the entities defined in Art. 1 shall, in their activities, comply with the legal determinations and internal norms of each hospital or penal institution, so as not to jeopardize the patient’s conditions or the safety of the hospital or prison environment.”³⁸

- Ministerial Ordinance No. 397 of October 9, 2002: Instituted the Brazilian Classification of Occupations (CBO), in which the activity of the chaplain is recognized under code 2631-05 “Minister of Religious Worship (Chaplain and others)” with a summary description of activities: “performing liturgies, celebrations, cults, and rites; directing and administering communities; training individuals according to religious precepts of different traditions; guiding individuals; performing social action within the community; researching religious doctrine; transmitting religious teachings; practicing contemplative and meditative life; preserving tradition; for which the continuous

exercise of specific personal competencies is essential.” As previously stated, in Brazil, the occupation of chaplain is generally associated with theological training and religious credentialing.³⁹

National training in chaplaincy also does not occur through undergraduate courses recognized by the Ministry of Education (MEC). Various chaplaincy organizations and entities (some with national scope) offer their own courses and training. For the most part, these are “free” or extension courses of short duration with simplified pedagogical programs not recognized by the MEC, though they may be considered a form of scientific updating and improvement of chaplaincy practice.

However, there are postgraduate courses in the areas of “Religious Sciences and Theology” or health and education fields that focus on spirituality. These courses can provide a relevant academic foundation for acting as a chaplain, although they are not “*stricto sensu* chaplaincy” courses. A search on the e-MEC website (<https://emec.mec.gov.br/emec/nova>) — which maintains the National Registry of Undergraduate Courses and Higher Education Institutions of the MEC — regarding specialization courses in chaplaincy (including military, social, police, counseling, spiritual care, and theology) showed 66 active courses (distance and in-person) nationwide.⁴⁰

For informational purposes and to exemplify the pedagogical content of a *lato sensu* postgraduate course in “Chaplaincy and Counseling” in Brazil, the curriculum of the Baptist Faculties of Paraná (FABAPAR – Resolution CNE/CES No. 1, of April 6, 2018) was identified. It aims to prepare chaplains for different areas of activity and consists of 9 modules: introduction to distance learning; social and prison chaplaincy; family counseling and conflict; spirituality: the theology of the soul and heart; theology, ethics, and contemporary morality; psychology applied to counseling; higher education didactics and methodology; research project; and a course completion paper.

In Brazil, several private associations congregate and represent chaplains, often focusing on specific religious denominations

or areas of activity; however, these are not federal autarchies with public legal personality. The main ones include:

- Federal Council of Chaplaincy (CONFECAP): An entity active in various areas (hospital, prison, school, etc.) with representation in several states.
- Federal Chaplaincy of Brazil (CAFEB): A national entity offering credentialing and support to chaplains.
- Order of Chaplains of Brazil (OCB): An organization seeking to create regulations and qualification for the profession in Brazil, based on international credentialing.
- Union of Evangelical Chaplains of Brazil (UCEBRAS): An association focused on evangelical chaplains, offering courses and credentialing.
- Order of Evangelical Chaplains of Brazil (OCEB): An entity focused on evangelical chaplains, providing courses and credentials with international validity.
- Chaplaincy Association of Brazil (ACBRAS): An association aiming to train and promote fraternity among chaplains, with a focus on religious and social assistance.
- Health Chaplaincy Association (ACS): An institution providing spiritual and emotional assistance in the health context, with experience in implementing chaplaincy services in various hospitals in Brazil and worldwide, offering training courses for chaplaincy ministry.
- International Voluntary Chaplaincy Service (IVCS – Brazilian representation): An international organization active in Brazil focused on voluntary chaplaincy services in various areas.

In Brazil, there is not yet a consensus on the term to be used when a chaplain undergoes a certification exam, which is generally international and without national validation. Regarding updating/continuing education, there is no national legal norm/requirement, but it is recommended that it be performed following at least the international recommendations described in topic 3.2.2.1 of this Chapter to ensure the evolution in quality and effectiveness of the Re/Sp interventions provided by chaplains.

3.2.2.3. Aspects of General Chaplaincy Performance and in Patients with Cardiovascular Disease

Professional chaplaincy, as previously presented, is the evolutionary result of a centuries-old practice stimulated by scientific evidence and the support of a group of entities (including medical ones) from different countries and diverse religious origins. Even when acting at the hospital level and within multidisciplinary healthcare teams, most chaplains are not healthcare professionals (they do not have a degree in the field). In these cases, they should be considered allied health professionals and their activities as “patient support services.”⁴¹

The term “professional chaplain” should be used for a trained (ideally certified) chaplain employed by an institution/hospital/organization. Their remuneration is provided exclusively by the employer; charging fees or for services rendered directly to hospitalized patients should be prohibited.

Another important point is that chaplains are generally the hospital professionals responsible for establishing and maintaining the interfaith space (“sacred space”) of the institution. This space should ideally be designed to meet the spiritual and emotional needs of patients/families of diverse spiritual and religious practices and should: be a quiet environment of neutrality and welcome; be adaptable to different needs and spiritual practices (e.g., prayer cushions, benches, kneeling spaces); be easily accessible to all (including those with reduced mobility); offer support resources (e.g., sacred books from different traditions, inspiring reading materials, paper and pens for reflective writing); and have a location clearly signposted in the hospital. When possible, it should be located near the chaplains’ office to facilitate family contact. The interfaith space of a hospital represents more than a site for spiritual practices; it represents respect, an attempt at welcome, and concern for patients and families amidst health challenges.⁴²

The process of spiritual care by chaplains presents many particularities, the most relevant being:

- There is a higher probability of providing chaplaincy care when patients present with acute or severe conditions, are in intensive care settings or receiving palliative care, and among those with a religious affiliation.⁴³
- Hospitals in large urban centers and those with religious affiliation/origin are more likely to have professional chaplains.⁴⁴
- Spiritual care interventions depend on the context in which they are provided and may require additional training for chaplains. An example is the military context, where military chaplains have practices adapted to: varied locations (from an interfaith space to the front lines of combat); a martial posture and behavior respectful of the military environment; the existential negotiation between “being a human and being a soldier”; and spiritual transformation during the military career.⁴⁵

Specific research on chaplaincy care and its outcomes is generally divided into two categories:^{46–49}

- Patient and family satisfaction with chaplaincy care: Studies generally have more robust methodology and tend to show that chaplain visits have a positive effect on overall satisfaction and the well-being of the patient/family.
- Outcome of specific chaplain interventions and relationship with disease progression and/or health: Studies are few, with most presenting methodological deficiencies (e.g., small sample sizes, lack of validated scales/quantification tools, etc.). Most studies present limited evidence regarding the specific outcomes of Re/Sp interventions performed by chaplains, particularly in cardiovascular patients.

The most traditional and validated scale for assessing patient satisfaction was developed by VandeCreek and Lyon (1997), evaluating four domains of the chaplain’s performance:⁵⁰

- “Supportive ministry” regarding the provision of comfort and security;
- “Helping patients cope” with illness and

terminality;

- “Acceptance of the chaplain’s ministry,” reflecting possible negative attitudes regarding the chaplain’s actions and activities;
- “Ministry to the patient’s private concerns,” encompassing the assessment of the chaplain’s competence, including communication skills, empathy, attention, and sensitivity.

Regarding the chaplain’s participation in multidisciplinary healthcare teams, it is necessary to emphasize that the patient (or the patient’s legal representative) and the attending physician are, in essence, the “co-captains” of decisions regarding treatments and conduct. The physician cannot delegate the responsibility for the exclusive performance of the spiritual anamnesis to chaplains, nor can they transfer the definition of the R/S interventions to be adopted as complementary treatment. The request for a chaplain’s presence must be authorized by the patient, and it is the physician’s responsibility to monitor the provision of interventions as well as the progression and results of the spiritual care provided. It is important to reinforce the issue of medical professional secrecy, as chaplains are generally not healthcare professionals and have legal/juridical limitations regarding access to medical records and patient treatment information.^{30,33}

Several relevant publications address chaplaincy activity in relation to R/S in patients with CVD:

- The “Consensus on End-of-Life Care in Patients with Heart Failure from the Heart Failure Society of America (2014)” stated that spirituality can influence patients’ opinions and decisions regarding offered therapies and that receiving/participating in chaplaincy services can provide patients with “a peaceful journey at the end of life.”⁵¹
- A retrospective study of data from the Veterans Health Administration and a survey of bereaved families of patients with HF (conducted between 2013 and 2015) identified a total of 6,256 deaths (mean age 77.4 ± 11.1 years; 98.3% male), of which 84.8% were visited by a chaplain, 70.4% of families were contacted regarding bereavement support, and 43.54%

died in a palliative care unit. Patients who died in hospitals with the best chaplaincy services compared to those with lower capacity had: a higher probability of a chaplain visit (92.6% vs. 81.2%) and bereavement support (86.0% vs. 72.2%); and a lower probability of dying in the intensive care unit (15.9% vs. 31.0%).⁵²

3.2.3. Faith-Based Organizations/Communities

Faith-based communities or organizations (FBOs; terms in English: faith communities and faith-based organizations) can be considered non-profit, non-governmental, “faith-infused” organizations that play a significant role in society by integrating spiritual principles and practices into the promotion of health and the population’s well-being. FBOs recognize the interconnection between physical, mental, social, and, primarily, spiritual health. For these entities, faith and spirituality are not merely aspects of life but powerful instruments for healing, disease coping, the search for meaning, life improvement, and holistic health. However, in some countries, the term FBO is also used for organizations of a “religious background” (such as churches, temples, mosques, and places of worship) that provide social and charitable services, and even large social service agencies with direct affiliation to religious practice and tradition (usually Christian).^{53–55}

In recent decades, there has been a significant expansion of worldwide solidarity and the fight against poverty and disease, which stimulated a significant increase in FBOs as well as the refinement of their activities. Today, FBOs generally possess a professional organizational structure with employees from diverse fields, including social workers acting on the front lines of care. Globally, these entities are culturally and sociopolitically influential, occupying a relevant position in healthcare access. The primary activities and functions developed by FBOs in relation to health and

spirituality are:^{54,56–61}

- Promotion of mental and spiritual well-being: Examples of programs based on the entity's Re/Sp beliefs include: churches offering support groups for bereaved individuals or those with chemical dependency; Buddhist centers teaching and promoting meditation and mindfulness; mosques organizing community events that include physical activities and discussions on well-being; and Jewish organizations offering marriage and family counseling based on religious principles.

- Provision of spiritual and pastoral support during moments of vulnerability, suffering, and illness: This may include individual Re/Sp counseling; visits to hospitals and the homes of bedridden or elderly individuals; intercessory prayer groups in congregations; specific religious rituals and ceremonies intended for healing, comfort, and/or hope; and bereavement support.

- Promotion of lifestyles encouraging healthy behaviors: Such as dietary moderation; self-care techniques; prevention campaigns against alcohol and tobacco abuse and the avoidance of harmful substances; and specific programs for well-being (e.g., nutritional counseling, physical activities).

- Provision of healthcare and compassionate support to those in need, regardless of religious affiliation: This care often occurs through partnerships and/or the maintenance of health clinics and hospitals (e.g., Catholic, Evangelical, or Jewish hospitals), specific social assistance programs (e.g., providing shelter, food, and support to individuals with mental health issues or addictions), and volunteer activities (e.g., meal preparation for families in crisis, transportation to medical appointments).

- Construction of a religious social support community: They provide a sense of belonging and social bonds fundamental to mental and emotional health, especially during moments of isolation due to chronic and/or terminal illnesses. They generally operate through volunteer support groups, mutual aid networks, and social/recreational activities.

- Advocacy for social justice and health: Many entities are involved in advocating for public policies that promote social justice, combat misery/hunger, and allow equitable access to healthcare for all, especially for vulnerable and marginalized populations.

- Integration of traditional and complementary practices: Some entities seek to integrate broader complementary practices with conventional medical therapeutics through the use of medicinal herbs, relaxation techniques, practices such as yoga, tai chi, or acupuncture, and guidance in meditation and mindfulness.

- Health education and awareness: Generally, FBOs possess communication channels widely used and respected by their community members. They can be an effective way to disseminate reliable health information and promote disease prevention through the distribution of informative materials, events, lectures, and religious sermons addressing the topic.

For the execution of their activities, FBOs rely on a diverse network of individuals and professionals, depending on their structure, available resources, and specific objectives. A significant portion of the relevance of FBOs stems from this capacity for mobilization and the commitment of all community members, especially those responsible for the entity's actions, the primary ones being:^{62–64}

- Religious leaders (pastors, priests, rabbis, imams, monks, etc.): Offer spiritual counseling, Re/Sp guidance, conduct prayers and healing rituals, perform pastoral visits to the sick, and lead prayer and religious study groups focused on spiritual and emotional well-being.

- Chaplains (hospital, prison, military, etc.): Provide spiritual and pastoral support to individuals in specific settings, regardless of religious affiliation. They offer active listening, crisis counseling, facilitate religious practices, and act as a bridge between faith, the institutional context, and the patient/family.

- Counselors (psychotherapists, social workers, family therapists, etc.): Can integrate spiritual values into their therapeutic practices, offering

a holistic approach to mental and emotional health, helping individuals deal with trauma, grief, and anxiety.

- Healthcare professionals (physicians, nurses, etc.) with training and activity in R/S.

- Health educators with a spiritual focus: Individuals trained to deliver health education programs that incorporate Re/Sp principles related to physical, mental, and social well-being.

- Administrators and managers of health programs and services offered by FBOs: They must have the sensitivity to integrate the organization's religious values and mission with effective health practices and business management.

- Researchers: Involved in conducting studies on the relationship between faith, spirituality, and health, seeking evidence of the benefits of religious practices and spiritual support on physical and mental well-being.

- Volunteers: Individuals who offer their time and skills for various activities related to health and spirituality.

- Lay leaders: Influential and engaged members of the FBO who can mobilize other members, organize events, manage resources, and act as health advocates in their community.

- Donors and benefactors: Individuals, families, companies, and other organizations that financially support the health and well-being activities of FBOs.

- Prayer intercessors: Members dedicated to the practice of prayer for the health and well-being of others; although they do not provide direct care, their participation through prayer is seen as an important form of spiritual support.

It is important to emphasize that most individuals will require specific training and qualification tailored to the needs and their professional area within the FBO. Table 2 presents some potential training and qualification programs for those involved in the activities and functions of an entity.^{55,56,58,59}

Although FBOs play valuable roles in promoting health and spirituality, they

frequently experience conflicts and limitations associated with their actions, especially when members do not receive adequate training in Re/Sp and issues linked specifically to certain religions, the main ones being:^{55,63,64,67-69}

- Potential for proselytism: Some entities may prioritize religious conversion over the health needs of individuals, especially in assistance contexts in underdeveloped countries. This can compromise the trust and access of people of different beliefs or no belief at all to the services offered.

- Excessive emphasis on the spiritual to the detriment of health issues: In some situations, there may be a tendency to overvalue spiritual solutions for diseases, neglecting the importance of conventional medical treatment. This can lead to delays in diagnosis and the implementation of appropriate treatments, with negative consequences for physical and mental health.

- Limited scientific basis for some offered healing practices and/or counseling: Health-related information needs the backing of solid scientific evidence to combat ineffective or even harmful practices. Some entities may intentionally disseminate inaccurate information that fits or is based on their religious beliefs.

- Exclusion and discrimination: Some entities may, consciously or unconsciously, discriminate against individuals or groups based on sexual orientation, gender identity, religion, ethnicity, or other characteristics, including limiting access to services or activities.

- Limited resources: Many entities operate with limited financial and human resources, which can restrict the quality, scope, and sustainability of their health programs.

- Lack of professionalism in specific areas: People involved in health activities do not always possess the specialized professional training necessary to handle complex physical and mental health issues, which can compromise the quality of care.

- Resistance to secular approaches: Some entities may show resistance to collaborating

Table 2 — Potential training and qualification of those involved in the activities and functions of FBOs regarding spirituality and health.^{55,56,58,59}

Activities/Functions	Potential Training and Qualifications*
Integration of faith and ethical and responsible professional practice	1) Theological and philosophical foundations of FBOs: understanding of the mission, values, and religious principles that guide the entity, potentially involving the study of sacred texts, denominational history, etc. 2) Faith-based ethics and morality: training on ethical issues, especially regarding confidentiality, patient autonomy, end-of-life decision-making, and social justice. 3) Religious values and beliefs: recognition and understanding of the values and beliefs of the members of the served community, including the understanding of how faith influences health, illness, suffering, and healing. 4) Discussion of ethical dilemmas: analysis of case studies and discussions on specific ethical dilemmas that may arise at the intersection of professional practice and the entity's religious values.
Development of spiritual care competencies in medicine	1) Spiritual assessment: training in methods to perform sensitive and respectful spiritual assessments, identifying the needs, resources, and sources of meaning and hope of individuals. This may involve the use of standardized tools or a colloquial approach, particularly in group activities. 2) Active listening and empathy: development of therapeutic communication skills focused on deep listening, demonstrating empathy, and valuing the spiritual experiences of others. 3) Provision of spiritual support: learning how to offer spiritual support appropriate to the context and the individual's beliefs, which may include prayer (if appropriate and requested), reading of sacred texts, facilitation of religious rituals, or connection with religious leaders of the individual's preference. 4) Management of religious and non-religious diversity: training to work effectively with people from different religious traditions, with those who have no religious affiliation, and with those who have diverse spiritual beliefs (religious pluralism and syncretism). It shall emphasize respect, understanding, and the combat against proselytism. 5) Recognition of spiritual distress: development of the capacity to identify signs of spiritual distress, such as resentment, hopelessness, loss of meaning, and religious conflicts, and knowing how to offer appropriate support or referral. 6) Provider self-care: training in self-care strategies for professionals working in emotionally demanding environments, including stress management, seeking support, and reflection on the impact of work on their own spirituality.
Area-specific professional knowledge	1) Physicians: in addition to the clinical competencies in spiritual care described in the previous section, training may include understanding how religious beliefs influence treatment decisions, adherence to care, and the perception of pain and suffering. Modules on medical ethics/bioethics from a specific religious perspective may be included. 2) Nurses, nursing technicians/assistants, and psychologists: training generally focuses on the integration of therapeutic approaches based on R/S and the patient's spiritual values, the methodology of counseling on religious issues, and the recognition of the role of FBOs in well-being. 3) Social workers: training must address how faith and religious organizations can serve as social support resources, how to meet spiritual needs in contexts of vulnerability, and how to collaborate with religious leaders to provide integral assistance. 4) Chaplains: training generally involves in-depth theological and pastoral education, in addition to clinical training in counseling, grief, trauma, and palliative care. See further details in section "3.2.2. Chaplaincy." 5) Interprofessional spiritual care training: training for the joint action of physicians, nurses, and chaplains in spiritual care, encouraging collaborative work, improvements in team communication, and an understanding of the responsibilities of each professional.
Collaboration and group/network teamwork skills within the organization	1) Understanding of roles and responsibilities: training on the different roles and responsibilities of various professionals and volunteers within the entity and how to be effective. 2) Interprofessional communication: development of clear and respectful communication skills among different participants of the entity, including respecting levels of experience. 3) Appropriate referral: learning when and how to refer individuals to other professionals within or outside the entity, including religious leaders and mental health professionals. 4) Relationship building with the FBO: for professionals not belonging to the entity, training may include the construction of relationships based on trust and respect.
Cultural and sensitivity aspects	1) Cultural and religious competence: training to understand and respect diverse cultures and religious traditions, involving the learning of ritual practices, religious holidays, dietary restrictions, and other expressions of faith beyond those of the entity's predominant religious group. 2) Avoiding proselytism: teaching how to separate the entity's provision of healthcare services from religious proselytism, ensuring that individuals feel safe and respected in their own beliefs. 3) Sensitive language and communication: training in the use of inclusive and sensitive language when discussing cultural, faith, and spirituality issues related to health.

FBO: faith-based organization; R/S: religiousness/spirituality. * The selection of these potential training and capacity-building programs was based on information from publications (e.g., review, systematic review, meta-analysis) and the authors' own observations. However, other forms and possibilities exist, including those aimed at meeting the specific demands and needs of the entities.

with secular organizations or adopting evidence-based public health approaches that do not align with their religious beliefs.

- **Exploitation of vulnerability and spiritual abuse:** Individuals in moments of emotional and/or physical fragility are more vulnerable and susceptible to exploitation (e.g., making donations). In contexts of intensive counseling or spiritual support, there may be a risk of abuse, where religious leaders influence and/or manipulate individuals, intentionally or otherwise, under the pretext of providing guidance.
- **Violation of privacy and confidentiality:** In closed religious environments, there may be a risk of confidential health information being shared without consent.
- **Lack of supervision and control/monitoring mechanisms:** In smaller or less structured entities, there may be an absence of adequate supervision and effective control mechanisms to ensure the quality and ethics of the health services provided.
- **Political/partisan conflicts:** FBOs involved in public policy issues or with members belonging to the governmental sphere and/or public administration may experience conflicts of interest, especially regarding health issues in vulnerable and marginalized populations.

It is important to emphasize that after a spiritual assessment of the patient (at both outpatient and hospital levels), the physician may determine the need for FBO support and should act as a facilitator for access to it. Occasionally, the patient and/or their family will be able to provide information about the existence of such an entity in their community. However, it is often necessary to contact hospital and/or government social services to receive proper guidance on how to make a referral. Chaplains and religious leaders can also assist in accessing FBOs. Chapter 3.1 of Section 3 addresses other aspects of the forms of interaction and integration of FBOs with the multidisciplinary team.

Another important point is that the physician's participation as a member of an FBO

(voluntary or otherwise) is generally associated with an improvement in the physician's own spirituality by: fostering higher levels of hope; increasing compassionate satisfaction; developing affection and empathy; increasing resilience and the willingness to face daily/professional problems; improving quality of life, increasing a sense of purpose in life, and improving self-esteem.^{70,71}

Scientific research on the potential benefits of FBO involvement in Re/Sp and CVD issues is growing, with potentially beneficial evidence:^{59,66,72-75}

- **Promotion of cardiovascular health and reduction of risk factors through guidance on:** self-care techniques and blood pressure control; prevention campaigns against alcohol and tobacco abuse; nutritional counseling programs; and physical activity programs. These interventions have demonstrated significant effects in improving CVD risk factors. An example is the "HeartSmarts" program, in which lay health educators from FBOs provide information to the population on risk factor reduction measures. The American Heart Association developed the "EmPOWERED to Serve" program, a set of lessons providing a way to engage and motivate FBOs to create a culture of health among their members.
- **Provision of spiritual/pastoral support to hospitalized patients (in acute and chronic conditions), those with severe/terminal CVD, and in moments of vulnerability (e.g., cessation of smoking or alcohol use).** This support is also commonly extended to family members.

Compassionate care and support for patients with CVD during prolonged treatments (e.g., providing shelter, food, etc.).

Post-hospitalization support: Physicians and nurses belonging to the entity can collaborate with support for patients after discharge, assisting in medication adherence and facilitating follow-up programs (individual and group), such as hypertension control classes and faith-based exercise programs.

Regarding scientific research on FBOs, Re/

Es, and health, there is a variety of scales and scores that allow for the evaluation of different dimensions of this interaction, including religious engagement, organizational efficacy, and the capacity for health promotion for individuals/communities. The choice of tool will depend on the specific objectives of the study, the main ones being:^{76–79}

- Measures of religiosity and spirituality of FBO members aiming to understand the level and nature of Re/Sp engagement: Multidimensional Measure of Religiousness and Spirituality (MMRS); Brief MMRS (BMMRS); Belief into Action Scale (BIAC); Religious Support Scale; Faith Practices Scale for the Church (CfPS); Supportive Church Environment Score (SCES).

- Measures of organizational efficacy of FBOs focusing on the evaluation of the achievement of the entity's objectives and its performance as an organization: qualitative assessments by FBO CEOs and leaders; Logic Models and Outcome Measurement; Stakeholder Perceptions.

- Measures of FBO capacity for health promotion, which are specifically relevant for evaluating available structure: Faith-Based Organization Capacity Inventory (FBO-CI), which assesses structural areas of capacity, including personnel and space, experience in health promotion, and external collaboration.

- Measures of collective religious involvement evaluating dimensions such as belief, behavior (public and private practices), and membership belonging: Religious Involvement Measurement Model.

— ~~Recent studies addressing the role of FBOs regarding Re/Sp in patients with CVD:~~

- A prospective study with 191 participants (mean age 66.26 years; 84.3% women) to evaluate the impact of a 10-week faith-based health promotion program (HeartSmarts) and its impact on CVD and cancer risk behaviors demonstrated that: the Supportive Church Environment Score (SCES) was 5 (IQR: 2.8), with instrumental support (88%) and spoken support (63%) being the greatest influences; vegetable intake increased by 58% ($p < 0.001$) and fruit intake by 39% ($p < 0.001$); physical activity increased by 14% ($p < 0.001$); and red meat consumption was reduced by 19% ($p < 0.001$).⁷⁸

- A systematic review and meta-analysis on the effectiveness of hypertension interventions in FBOs, selecting 11 studies primarily in Christian communities in the USA, observed that interventions carried out by these entities resulted in a significant reduction in SBP of -6.23 mmHg (95% CI: -11.21 to -1.25) for hypertensive populations (with a mean baseline SBP ≥ 140 mmHg).⁸⁰

- A randomized controlled trial conducted in six FBOs (urban churches with African American predominance) and 380 participants (mean age 54 ± 13 years; 67% women; mean body mass index: 33 ± 7.5 ; 87% overweight/obese) evaluating the effect of the FIT (Faith Influencing Transformation) intervention program for weight loss and consequent risk reduction for diabetes and CVD demonstrated that: the intervention group was 1.6 times more likely to achieve weight loss ≥ 5 lb (2.25 kg) compared to controls ($p < 0.001$), and the authors highlighted that previous research showed each kilogram of weight loss can reduce diabetes risk by 16%; exposure to sermons, text/email messages, brochures, commitment cards, and posters was significantly related to weight loss.⁸¹

3.2.4. ~~Complete Library/Interactive~~ Material

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This book contains additional interactive material (scientific, institutional, informative, etc.), which will allow for further deepening and learning of the topics addressed in this Chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the GEMCA is accessible via the internet at the link and QR code presented below:

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Chapter 3.3

Religiosity and Spirituality in Mental Health, Psychiatric Care and Spiritual Practices for Health



Chapter available
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Odilon Gariglio Alvarenga de Freitas

Roni Arley Silva Duque

José Carlos da Costa Zanon

3.3.1. Religiosity and Spirituality in Mental Health and Psychiatric Care

The relationship between religiosity and spirituality (R/S) and mental/physical health dates back to ancient times, as observed in the famous Latin phrase “*orandum est ut sit mens sana in corpore sano*” (one should pray for a healthy mind in a healthy body). This phrase appears in the work *Satires* (Satire X - The Vanity of Human Wishes, line 356) by Decimus Junius Juvenalis, who lived between the late 1st century and the early 2nd century AD. At this point in the text, the author discussed what people should desire in life, valuing mental and physical health as the most important assets achievable through spirituality.^{1,2}

Throughout the Middle Ages and until the French Revolution, physicians were frequently clerics, and religious institutions were responsible for licensing physicians to practice medicine. However, in the 19th and 20th centuries, this religious involvement — particularly in the field of psychiatry — was viewed negatively and held responsible for some of medicine’s darkest moments, including mass institutionalization for hysteria/neurosis,

abuses in psychiatric hospitals, and the emergence of so-called “religious insanity” (a theory in which religion was the primary cause of or contributor to insanity). All of this led to a separation between religion and medicine, with negative attitudes toward addressing religious/spiritual (Re/Sp) beliefs in clinical practice and the consideration of Re/Sp resources as harmful or pathological. In modern times, religion and psychiatry began to diverge further. This was encouraged by psychiatrist Sigmund Freud in his works *Obsessive Actions and Religious Practices*, *Psychoanalysis and Religion*, *The Future of an Illusion*, and *Moses and Monotheism*. These works left a legacy that would influence psychiatric practice (especially psychotherapy) and lead to a true schism between religion and mental healthcare. A systematic review (1993) of the religious content in the DSM-III-R demonstrated that nearly a quarter of all cases of mental illness used religion in reminders, warnings, and illustrative case examples, indicating cultural insensitivity in the interpretation of religion.³⁻⁷

Despite the negative views and opinions of many mental health professionals, a shift in the landscape occurred starting in the 1970s due to scientific research demonstrating that

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R/S was generally associated with better mental health. Individuals with a significant connection to Re/Sp practices may show positive outcomes in psychotherapeutic treatments when interventions specifically address the dimensions of religion and spirituality.^{3–5}

In recent decades, there has been growing academic, medical, and public awareness regarding the relevance of R/S to health, with the World Health Organization (WHO) recognizing spirituality as a dimension of individuals' quality of life. In recent decades, several global psychiatric associations (e.g., Brazil, United Kingdom, USA, India, and South Africa) have created specialized departments on R/S and have increasingly published recommendations and position statements in favor of incorporating R/S into clinical practice:^{8–10}

In 1990, the American Psychiatric Association (APA) published a guideline on potential conflicts between the religious commitments of psychiatrists and psychiatric practice, emphasizing the need for psychiatrists to respect their patients' beliefs and warning against imposing the psychiatrists' own beliefs on them.¹¹

In 2013, the Royal College of Psychiatrists published a position statement affirming the value of R/S as part of good clinical practice and providing guidance and clarification on how to approach R/S for the patient's benefit.¹²

In 2016, the World Psychiatric Association published an official "Position Statement on Spirituality and Religion in Psychiatry" recommending the integration of R/S into mental health research, training, and clinical practice.⁸

In 2017, the German Association for Psychiatry, Psychotherapy and Psychosomatics published a position statement recommending that psychiatrists address Re/Sp dimensions in psychiatric care in a sensitive, ethical, and patient-centered manner.¹³

In 2023, the Brazilian Association of Psychiatry (ABP) published a guideline on the integration of spirituality into clinical practice, recommending the routine inclusion of the spiritual anamnesis/history (S/AH) in mental health care.¹⁴

Despite the scientific evidence of the relationship between R/S and mental health and the recommendations for integrating R/S assessment into clinical/psychiatric practice, it remains a significant and persistent challenge. A cross-sectional study on religion/spirituality and clinical practice (2016) with 484 Brazilian psychiatrists revealed that 67.4% had a religious affiliation; the majority (76.8%) considered it very and/or reasonably important to evaluate the patient's R/S, but 55.5% did not routinely do so due to fear of overstepping ethical boundaries (30.2%), lack of training for the approach (22.3%), and lack of time (16.3%).¹⁵

Another study analyzing the Re/Sp profile of 592 Brazilian psychiatrists verified its influence on attitudes and behaviors in clinical practice, identifying two distinct classes based on their views of R/S: more religious professionals (58.61%) investigate the patient's R/S more frequently and in more detail; while less religious professionals (41.39%) — predominantly men, more professionally experienced, and with higher levels of academic education (Master's or Doctorate) — tend to disregard this aspect.¹⁶

The ABP Guideline on the integration of spirituality into clinical mental health practice presented relevant data regarding S/AH:¹⁴

- Main perceived barriers to incorporation into psychiatric practice: Ethical concerns; lack of time and training; concerns about causing distress or exacerbating psychopathology; the need for broad knowledge about religion and diverse cultural backgrounds; concerns about negative mental health outcomes resulting from R/S beliefs or practices. The document presented a broad argument and detailed recommendations on how to overcome these barriers.
- Scientific evidence for implementation (all with level of evidence 2): Improvement in satisfaction with treatment received; improved frequency of or adherence to treatments; increase in psychological well-being, quality of life, and reduction of negative psychological symptoms; spiritual anamnesis training improves the capacity for spiritual assessment in healthcare.
- Recommendations regarding S/AH in the context of mental health: R/S assessment

should be routinely performed and patient-centered, neither prescriptive nor proselytizing, and culturally sensitive to the patient's beliefs, practices, and worldviews; the primary objective is to create an open and respectful environment where patients can share beliefs, concerns, and perspectives on R/S; use open-ended, patient-centered questions; the initial investigation of R/S may begin by assessing the patient's social, community, and personal interests; the investigation should be flexible and adapted to

responses, observing verbal and non-verbal cues; brief interviews are feasible and provide useful information for screening, time-limited assessments, and initials.

The form and content of the S/AH conducted by clinical physicians were addressed in chapters 2.2 and 2.3 of this book. However, the ABP released a recommendation for adapting the anamnesis, including a more detailed exploration of specific R/S topics for patients in psychiatric consultations (Table 1).¹⁴

Table 1 — Questions utilized in the anamnesis/spiritual history in mental health.¹⁴

Question Type	Explore
Routinely, for a brief S/HA assessment	1) Are you a spiritual or religious person? Or do you have any religious or spiritual beliefs? Tell me more about that. 2) To what extent are religion or spirituality important in your life? 3) Are you part of a religious or spiritual community? 4) Are religion or spirituality important sources of strength for you in coping with stress or life's difficulties? Or: What are your sources of strength for dealing with life's difficulties or stress? Do you have any beliefs or practices that help you cope with the situation?*/**
To explore specific R/S topics when necessary:	
Beliefs regarding meaning and life	- What gives you meaning or purpose?* - What are your beliefs regarding death?*
Private practice	- Do you have any personal or private religious practices, such as meditating, praying, playing or singing sacred music, or reading scriptures? Are they helpful?*/**
Organized practice	- Do you have any communal religious practices, such as belonging to a religious tradition, participating in worship services, rituals, pilgrimages, retreats, helping others, or participating in a study group? Are they helpful?*/** - If not, would you be interested in becoming involved in a religious or spiritual community?**
Relationship with the community	- Do you receive support from or experience difficulties with your religious community?*
Spiritual experiences	- Have you ever had a spiritual experience? What meaning did you attribute to these experiences?*
Relationship with God/the transcendent, R/S struggles, and coping	- Do you believe in God or any transcendent or higher power?* - If so, what is God like?* - Do your R/S beliefs and practices support your well-being and mental health, or do they hinder coping with any part of your treatment?*/** - Do you find yourself struggling with concerns about God or your spiritual beliefs?* - Do you feel loved, accepted, with a sense of belonging, forgiven, closer to God, or rejected, guilty, ashamed, afraid, and more distant from God?*/** - Do you have any R/S needs in your life that are not being met?**
Integrating R/S into treatment	- Do you believe your R/S practices and beliefs can support your recovery? If so, how?* - Do you have questions about R/S that you would like to explore? Is there someone who cares about you and with whom you can talk about your spiritual life?* - If there is something that could help you but you cannot access, how can I help you gain access? It is important for you to know that: a) You can talk to your religious leaders and involve them in your treatment.* b) Several current treatments consider R/S issues, such as 12-step programs for alcohol and substance abuse, mindfulness-based interventions for dealing with stress, anxiety, and depression, and spiritually and religiously integrated psychotherapy.*

R/S = religiousness/spirituality; S/H = spiritual history. *Question based on the assessment by the Royal College of Psychiatrists. ** Question based on the Spiritual Assessment Interview. Translated and adapted from: Mosquero et al. Brazilian Psychiatric Association guidelines on the integration of spirituality into mental health clinical practice: Part 1. Spiritual history and differential diagnosis.¹⁴

Currently, the most relevant scientific evidence regarding the relationship between the R/S approach and Re/Sp interventions in the treatment of psychiatric disorders refers to:^{4,17}

- **Depression:** It is the most prevalent mental disorder, yet religious practices and beliefs are often not considered in the treatment of depressive symptoms. However, studies demonstrate that higher levels of R/S are generally associated with fewer depressive symptoms, and compared to conventional/ usual therapies, R/S-based interventions show superior results. The Canadian Network for Mood and Anxiety Treatments (CANMAT) guideline recommends the integration of Re/Sp into treatment, with cultural and religious adaptations of evidence-based psychotherapies when available and appropriate, based on demonstrated efficacy.¹⁸⁻²⁰

- **Anxiety:** Studies show mixed results (positive and negative). Regarding positive effects, people with higher levels of R/S showed a lower prevalence of anxiety symptoms, in addition to reporting greater life satisfaction and psychological well-being.²⁰⁻²²

- **Suicide:** Higher levels of R/S are generally associated with a lower probability of suicide. However, maladaptive and distressing dimensions of R/S (e.g., religious conflicts) correlate with a higher probability of suicide.²³⁻²⁵

- **Substance Use Disorder:** Higher levels of R/S are generally associated with lower consumption of illicit substances. Culturally adapted Re/Sp cognitive-behavioral therapy may assist in short-term abstinence.²⁶⁻²⁸

- **Psychotic Disorder:** Religious delusions are associated with a poor prognosis. Non-psychotic religious beliefs are generally associated with better outcomes.^{29,30}

- **Obsessive-Compulsive Disorder:** Few studies with mixed results (positive and negative).^{1,32}

- **Bipolar Disorder:** Few studies. Higher levels of R/S are generally associated with better treatment outcomes.^{33,34}

- **Post-Traumatic Stress Disorder:** R/S may serve as protection against post-traumatic stress, generally increasing the enhancement

of cognitive and emotional capacities.^{35,36}

- **Eating Disorders:** Few studies with mixed results (positive and negative).³⁷

There is no single mechanism that explains the effects of R/S (positive and negative) on mental health. R/S is generally associated with human virtues (e.g., forgiveness, altruism, gratitude) and psychological constructs that can both support good mental health and serve as a trigger or cause for mental disorders (MD). Regarding biological factors that may influence the development and course of MD, preliminary studies have identified that: higher levels of R/S are associated with higher rates of brain-derived neurotrophic factor; self-transcendence is associated with greater availability of the serotonin transporter in the raphe nuclei of the brainstem; correlations have been reported between R/S and the activity of genes linked to dopamine, serotonin, vesicular transporters, and oxytocin.^{4,38,39}

Clinical physicians who address R/S during their consultations often observe situations and information that lead to suspicion of an underlying mental disorder, cause significant distress, and/or negatively impact the patient's psyche. In these cases, referral for a full psychiatric evaluation is recommended, as collaboration between professionals from different fields ensures an integral approach to the patient's health. Some primary reasons for referral include: the need for adequate differentiation between spiritual experiences and psychiatric symptoms; suspicion of comorbidity between Re/Sp conditions and MD leading to symptom exacerbation, distorted interpretation of events, and psychological distress (e.g., religious guilt, conflicts of faith, negative coping); and the need for advanced psychiatric management and therapeutics specific to the patient's needs and treatment.^{17,40,41}

The psychiatrist also plays a crucial role in palliative care teams, focusing primarily on the emotional and mental well-being of patients and their families. Their collaboration and sharing of expertise with the team contribute to a comprehensive, patient-centered care plan, including Re/Sp issues. Their main activities include:^{14,40,42-44}

Psychiatric evaluation and diagnosis of

mental disorders (e.g., depression, anxiety, delirium, post-traumatic stress disorder) that may arise or be exacerbated in serious illnesses and the process of end-of-life. They also collaborate to distinguish whether symptoms are primarily physical, manifestations of a psychiatric disorder, and/or side effects of medications.

Investigation and intervention in psychological distress, seeking to reduce emotional suffering, the impact of the disease on mental health, and the improvement of the patient's coping capacity.

Psychiatric intervention and treatment: Individual, family, or group psychotherapeutic support, adapted to the patient's specific Re/Sp needs, is fundamental for well-being and emotional stabilization. This support may include supportive therapy, cognitive-behavioral therapy (CBT) focused on coping, existential therapy, as well as other modalities specific to the patient's condition/illness.

Optimized management of psychotropic medications (antidepressants, anxiolytics, antipsychotics, etc.) considering the patient's clinical conditions, drug interactions, potential side effects, and palliative care goals.

Assistance in non-pharmacological interventions through guidance and strategies for controlling insomnia, agitation, and anxiety, including relaxation techniques, mindfulness, and psychoeducation.

Appropriate intervention for serious emotional crises, suicidal ideation, severe psychomotor agitation, and/or complicated grief reactions.

Contribution to ethical and legal aspects, evaluating the patient's capacity to make conscious decisions about their treatment, especially regarding mental health issues. Furthermore, ensuring that psychiatric interventions respect the patient's autonomy, Re/Sp values, and preferences, and contributing to the discussion of ethical dilemmas related to the disproportionate prolongation of care in terminal patients.

Another extremely relevant point is that cardiovascular diseases (CVD) and MD are, respectively, the first and second most prevalent diseases in high-income

countries. There is strong epidemiological evidence of the relationship between MD and CVD and that this association is a negative prognostic factor for both conditions. Consequently, interdisciplinary collaboration between psychiatrists and cardiologists will frequently occur to achieve optimal treatment results.^{45–47}

There is emerging evidence that severe mental illnesses and CVD share several behavioral, biological, and genetic mechanisms. Studies demonstrate that people with severe MD (depression, schizophrenia, and bipolar disorder) have a higher prevalence of modifiable cardiovascular risk behaviors and conditions and double the rate of cardiovascular mortality compared to the general population. Patients with MD, even when mild, generally show a higher prevalence of CVD risk factors such as smoking, poor diet, and lack of exercise. They also have a higher risk of myocardial infarction and stroke, yet are less likely to undergo interventional procedures compared to the general population. Additionally, both cardiologists and psychiatrists may utilize Re/Sp interventions that aid in the control of cardiovascular risk factors, as presented in Chapter 4.1 on prevention in this book.^{45,48,49}

3.3.2. Spiritual Practices for Health

3.3.2.1. Prayer

The word “prayer” is derived from Latin, formed by the conjunction of *orare* (to speak, to say) and *oratio* (word, speech, plea, prayer). Regarding its religious aspect, it is a multidimensional (physical, emotional, spiritual, conceptual, and social) millennial practice, performed privately or in groups, which transcends the physical/material field and allows for connection with oneself, others, and the sacred/divine. From a theocentric perspective, prayer is, simply, communication with God. In the Jewish, Christian, and Islamic religious traditions, it is performed to express gratitude and draw closer to God. Its practice is viewed as natural (almost instinctive) and

sacred. For many individuals, it is their primary or only religious practice. It was only after 1980 that prayer began to be routinely studied within the context of health and disease.⁵⁰

In terms of R/S, it is considered a cognitive/behavioral strategy used as a necessary complementary therapeutic intervention for holistic healthcare. Prayer promotes positive religious/spiritual coping during health and/or disease transitions, providing well-being, comfort, hope, a connection with a sacred/transcendent dimension, and the possibility of experiencing ritual solidarity. It is important to note that the cognitive and behavioral aspects of prayer are frequently interlinked, as thoughts and beliefs (cognition) can lead to prayer behaviors, and the regular practice of prayer (behavior) can influence cognitive processes, including the way one thinks

about oneself, the world, and the challenges faced.^{50–52}

Prayer is considered a particularly important R/S intervention in the spiritual care of patients in suffering, those with severe chronic diseases, and those in palliative care. However, its use requires mandatory respect for religious beliefs, the perception of the meaning of life, and the patient's manifested will.^{50–52}

A series of prayer classification schemes are described in the scientific literature. Traditional typologies have focused on the reasons/intentions for which people pray, as well as the content of the prayers (e.g., petition, invocation, thanksgiving, dedication, supplication, intercession, confession, penitence, and blessing prayers). Regardless of the classification used, it is important to

Table 2 — Types of prayer and factors contributing to the variation in the experience of the act of praying.^{51–55}

Types of Prayer*		
- Petition: asking for something for oneself. - Intercession: asking for something for others (e.g., health; well-being). - Adoration: giving honor or praise to God. - Confession: expressing repentance or sorrow for a committed error. - Lamentation: crying out in anguish, asking for forgiveness and mercy. - Invocation: summoning or asking for the presence of God to manifest. - Thanksgiving: offering gratitude to God for His actions, for life, and for well-being. - Meditative: contemplating spiritual themes and the relationship between the divine and humanity. - Conversational/Colloquial: conversing informally with God about everyday matters, seeking guidance and counsel, or expressing gratitude. - Ritual: reciting or reading known and/or memorized prayers (e.g., the Lord's Prayer).		
Influencing Factors	Experience of Lower Intensity	Experience of Greater Intensity
Quantity	Low; shorter duration and less frequent.	High; longer duration and more frequent.
Style	Free, with few rules.	Limited, with many rules.
Purpose	Toward the inner self, seeking a change in mood or life perspective.	External (seeking external changes) and/or directed toward another person.
Target of Prayer	Distant, abstract, and indirect (e.g., world peace or the deceased).	Engaged, distinct, and active (e.g., healing of a friend or beloved family member; strength to endure treatment).
Location/Attention	Private, individual poorly attentive.	Private and/or public with attention/dedication.
Attitude	Doubt, resentment, disbelief, and distraction.	Humility, trust, devotion, focused, and orderly.
Emotions/Feelings	Hopelessness, anxiety, and sadness.	Gratitude, love, compassion, hope, sincerity, and authenticity.
Social Structure	Proposed by a social group, civil society, state (or political authority), or work team.	Voluntary, proposed by the family and/or religious institutions.

* These types of prayer were the most frequently reported in original and review articles and in the authors' own observations, although numerous other types of prayers are practiced across a wide range of religions.

note that there are factors associated with the variation in the intensity of the experience of praying (Table 2).^{51–55}

One of the great challenges in comparing the results of research involving prayer in R/S is the multiplicity of the forms of prayer investigated/used: primitive, ritual, Hellenistic, philosophical, personal, silent, verbal, public, meditative, prophetic, colloquial (free content), religious/ritualistic texts, scripture reading, etc. Furthermore, the various types of prayer are not mutually exclusive and can be integrated and/or associated depending on the needs and circumstances of each individual. Another frequent limitation of research is the popular conception that when someone is sick enough to need prayers, the case is serious (even terminal), which can cause apprehension in patients and even worsen their mental state, disposition, and well-being.^{55–57}

It is important to emphasize that prayer is a personal, subjective experience and that there is no single “correct” way to pray. The experience of praying will be more intense when the prayer is authentic, performed with a sustained level of internal concentration, in an uninterrupted manner, and seeks comfort and meaning for the individual. In medical literature, the two most used prayers are: intercessory, in which there is no direct contact or involvement between the individuals who are imploring (intercessors) and those who are the target/recipients of the prayer; and petitionary, in which the request is for oneself.⁵⁸

The relevance and indication of prayer as a complementary therapy (CT) for a patient, as well as other additional forms of Re/Sp intervention, should be based on information obtained during a consultation that includes the spiritual anamnesis. In the anamnesis, it is important to question patients about their prayer practices, the environments in which they pray and feel most connected to the divine/transcendent, and the results of previous experiences. As previously discussed in chapters 2.2, 2.4, and 3.1 of this book, the physician must respect the autonomy and beliefs of the patient/family, maintain an ethical and compassionate posture, cannot prescribe or use prayer in place of conventional

treatments, and is prohibited from imposing their own beliefs, will, and/or convictions. If the physician chooses to indicate this CT, they must present the potential benefits of prayer to the patient/family, assume the role of facilitator in accessing guidance for performing the prayer (e.g., chaplain, religious leader), and assist in making the environment suitable for the practice (ideally in an interfaith space or at least a private one, free from noise and interruptions) as described in chapter 3.2 on chaplaincy.⁵¹

In this context, interprofessional collaboration (physicians with religious leaders and/or spiritual counselors), especially in hospital settings, can ensure the patient receives due support. Generally, religious leaders (priests, pastors, rabbis, and sisters) and/or spiritual counselors (hospital chaplains, spiritual therapists) will provide practical information and rituals for the specific prayers of each faith that resonate with the beliefs, culture, values, and needs. They can also teach about traditional prayer texts, appropriate times to pray, and the meanings associated with different forms of prayer.⁵² Regarding the chaplain’s participation in guiding and applying prayer as a CT, this should only occur after the patient’s consented and free choice, with the physician responsible for monitoring the provision of guidance, as well as the progression and results of this spiritual care.

A relatively frequent situation is for patients to express a desire and/or invite the healthcare team (including the physician) to perform a prayer with them. The physician’s participation in prayer is acceptable when: the request has come spontaneously from the patient; and the physician does not feel uncomfortable, coerced, or in violation of their religious choice, since according to Opinion No. 38/2025 (March 6, 2025) of the Regional Medical Council of the State of Minas Gerais, “it is up to each professional, based on their religious choice, to perform or not the prayer/prece with their patient.” It is also recommended that the prayer be led by the patient themselves or by a chaplain/religious leader. During the prayer, the physician may recite part or all of the prayer if it stems from sincere faith and does not inhibit the patient’s

participation. However, if they cannot pray sincerely, they should limit themselves to listening respectfully to the prayer.⁵⁹

The main factors influencing the experience of praying are:^{52,54–57,60}

- **Quantity (Frequency/Duration):** The frequency of prayer indicates how omnipresent, routine, and rooted prayer is in an individual's life and behavior. Women, adults, churchgoers, and civically engaged individuals are more likely to pray. Many studies link prayer frequency to health and healthy behaviors throughout life. Although the duration of prayer reflects its strength/dominance in the course of an individual's current life moment, its health benefits depend on additional factors. The quantity of prayers, by itself, tends to be unrelated to social attitudes and behaviors.
- **Style:** The style of prayer helps determine whether the prayer/communication with the supernatural/divine was indeed performed appropriately, legitimizing both the practice and the practitioner. Although the symbolism of each prayer style varies across religions and cultures, the overarching meaning remains consistent, representing the ideal way for an individual to demonstrate their faith and confirming their practice to the community.
- **Purpose:** Refers to the rational motivation for performing a prayer and what is expected to be achieved from the experience. Purpose also connects to the affective and traditional parts of prayer, impacting the outcomes reached, regardless of style or quantity factors.
- **Target of Prayer:** The "focus of prayer" can significantly influence its impact and the psychological/spiritual responses. Directing a prayer to a divine entity often involves seeking guidance, strength, and wisdom, reinforcing belief in a benevolent and guiding power of the universe. Focusing prayer on personal needs, difficulties, or growth can encourage self-reflection, introspection, and a deeper understanding of one's "inner self." Conversely, directing prayer to express gratitude for blessings and positive aspects of life can promote appreciation, contentment, and thankfulness.
- **Location:** Can influence both the spiritual experience and mental well-being. Factors such as the sacredness of the space (e.g., churches, temples, mosques, or natural sites considered

sacred), personal comfort (e.g., safety, intimacy, sense of connection), and the support of the faith community (e.g., collective rituals, social connection, sense of belonging) can enhance the positive impacts of prayer.

- **Attention:** The individual deliberately shifts their focus of attention/awareness to a different reality in order to communicate with the divine, reaching a transcendent experience.
- **Attitude:** Grants the prayer greater power and impact on spirituality. A sincere and authentic attitude, genuinely involving beliefs and feelings, promotes a deeper connection with the divine/transcendent. An attitude of respectful engagement honors the sacred nature of prayer and the object of devotion. Additionally, praying with an attitude of love and compassion, both for oneself and others, expands the spiritual connection and promotes a sense of unity and interconnection.
- **Emotions/Feelings:** Praying individuals may experience divine/transcendental contact as an emotional state. Various theoretical sources consider that praying entails both positive (uplifting) emotions and, in certain cases, negative ones (producing anxiety and fear). When the relationship with the divine is positive, a deep sense of security and meaning in life generally occurs.
- **Social Structure:** Significantly influences the experience of praying. Social institutions, such as family, religious organizations, and educational systems, transmit beliefs and values, shaping the individual's understanding and approach to prayer. Religious leaders and institutions frequently establish theological frameworks that influence the purpose and meaning of prayer. Religious communities offer social support networks that can encourage and sustain individual prayer practices.

There are several potential benefits of prayer for health and disease, interlinked with R/S, the main ones being: reduction of stress and anxiety (through mechanisms such as focus of attention, cognitive restructuring, and the sensation of spiritual support); improvement of emotional well-being (greater sense of hope, optimism, comfort, and inner peace); improved positive religious-spiritual coping (better mental and physical health outcomes); impact on physiological parameters (reduction

in blood pressure, heart rate, and respiratory rate); improvement in quality of life (generally through an increased sense of meaning and purpose in life); and greater adherence to health treatments and adoption of healthier lifestyles (e.g., avoiding smoking, alcohol consumption).^{52,54,56,60}

A frequent issue physicians face is the expectations and reactions of the patient/family to the results of a prayer, especially when involving acute and/or serious/terminal illnesses. Generally, petitionary prayers, intercessory prayers, and, in some cases, ritual prayers are associated with higher levels of expectation, anxiety, and a desire for the prayer to be answered.^{54,61,62}

The perception of a prayer's outcome is complex and multifaceted, involving subjective dimensions, individual beliefs, and the interaction between faith and observed outcomes, including health outcomes. From a spirituality perspective, a patient may interpret a prayer as answered when: an improvement in health status and/or a cure occurs; they experience a sensation of comfort, acceptance, peace, or inner strength, even if their physical condition hasn't changed; they feel they have received mental clarity, discernment, or divine guidance/help regarding decisions related to treatment, life, and/or coping with the disease; they experience synchronous events such as receiving unexpected support from others or having access to resources that facilitated treatment and/or well-being; or they experience personal and spiritual transformation with changes in life perspectives/values and/or a strengthening of faith (even without a direct physical cure). In this perspective, patients/family members may reinforce positive behaviors (associated with hope, gratitude, and dignity), show reduced mental stress/anxiety, adopt protective behaviors (optimism, self-control, and social interaction), and strengthen ties of faith (prayer, participation in religious services/rites, and practice of charity).^{63–65}

However, reactions to unanswered prayers and the resulting rationalizations, including cognitive dissonances, may involve: decreased religiosity (partial or significant); no change in religiosity; or increased religiosity (partial

or significant). Much of these reactions will be associated with previous experiences, religious affiliation, intrinsic and/or extrinsic religious motivation, the view of God/the divine as a source of love and/or punishing, the understanding of personal hope, self-esteem traits, and beliefs about life after death. The physician must assist the patient in understanding that prayer is a supportive resource and/or complementary treatment that generally positively influences emotional and psychological well-being but does not replace conventional treatment or represent a "cure for all ills." In cases of more severe/self-destructive emotional reactions, it is advisable to investigate the concomitancy with psychological/psychiatric disorders (e.g., hypochondria, panic disorder, and anxiety and depression disorders) and rely on the assistance of a psychiatrist.^{66–68}

Although there has been an increase in research in recent years to empirically test the effects of prayer on health/disease and its efficacy as a coping strategy, there is still no consensus on which scale and/or measurement tool should be used. There is a series of methods used to investigate different aspects of prayer, including questionnaires on human religiosity (considered one of the dimensions of prayer). The most commonly used methods are:

- Single Variable: This is one of the simplest ways to investigate prayer. The most commonly performed is prayer frequency, through the question "How often do you pray or meditate?" with responses scored on an eight-point Likert scale, ranging from 1 (never) to 8 (more than once a day). Three other highly studied variables (individually or associated) are the target of prayer (or "focus of prayer"), style, and purpose.
- Multidimensional: Single-item measures do not fully capture the nature of prayer as it is a complex phenomenon. The main scales are: Prayer Functions Scale (PFS), composed of 58 items and used to measure the frequency with which people use prayer for specific coping functions; Prayer Types Scale (PTS), with 15 items, measuring prayer behaviors (speaking, listening, feeling, or thinking) and four subscales (colloquial, meditative, petitionary, and ritual prayer); Prayer Thoughts (PT), consisting of eight subscales to measure various types

of prayer across various religious traditions (examination, rest, sacramental, intercession, tears, suffering, radical, and petition); Prayer Inventory (PI), with 24 items, seeking to measure the extent to which participants engage in four types of prayer (religious, petitionary, meditative, and psychological); Multidimensional Prayer Inventory (MPI), composed of 15 items, measuring five types of prayer (adoration, confession, thanksgiving, supplication, and reception) indicated as most characteristic of the Judeo-Christian tradition; and Prayer Importance Scale (PIS), with six items to assess the subjective importance of prayer in an individual's life (persistence and priority).

- **Role of Religious-Spiritual Coping:** There are scales assessing coping that include specific items on prayer, the primary one being the Religious Coping Scale (RCOPE), composed of 105 items, with subscales measuring both positive coping (prayer seeking partnership with the divine, benevolent reinterpretation) and negative coping (prayer of anger at God, feeling of divine abandonment).

- **Qualitative Assessment:** Some research, especially that seeking a more detailed understanding of the experience of prayer, may utilize interviews (with open-ended questions about the prayer experience, its meaning, how the person prays, and the effects they perceive). Content analysis of responses is complex and lacks psychometric properties.

One of the major points of scientific discussion concerns the role of intercessory prayer in reducing complications during and after coronary artery bypass graft (CABG) surgeries. Until 2006, at least two studies found that intercessory prayers brought benefits, but two others concluded there were no benefits. These and other previous studies were criticized for methodological limitations and interpretation of results. The Study of the Therapeutic Effects of Intercessory Prayer (STEP), a multicenter study with Christian patients (in 6 US hospitals), observed that intercessory prayer (by itself) had no effect on the incidence of complications from major events/mortality, but the group with the certainty of receiving intercessory prayer (older patients, higher proportion of males, and higher prevalence of various

comorbidities) showed a higher incidence of complications (RR: 1.14; 95% CI: 1.02-1.28). This finding was considered a clear setback for those who believe in the power of prayer and was regarded as an instance of unanswered prayers. However, many researchers question the role of the target of the prayer (in this study, a stranger) because it could impact the emotional and spiritual aspects involved in praying and whether this influenced the intensity of the experience, its efficacy, and even whether it respected the patients' beliefs. All these data reinforce the need for future studies on prayer and health to be interdisciplinary (physicians, psychologists, and theologians), addressing diverse religious beliefs and the patient's intrinsic religiosity.^{67,69,70}

Several relevant publications address prayer in relation to R/S in CVD patients:

- A randomized controlled trial in 74 Shiite patients (mean age 48.69±10.87 years; 63.5% men) with heart failure (HF) in New York Heart Association (NYHA) classes II and III was conducted to determine the effect of a spiritual care program on resilience through interventions to improve and correct the four dimensions of human communication (with God, others, oneself, and creation) using prayers and supplications, reading the Quran, and prayer therapy (to improve self-esteem, forgiveness, nature, and gratitude, based on meditation via a prayer book). Dimensions of individual competence ($F=12.85$; $p=0.001$), tolerance of negative emotion ($F=8.71$; $p=0.005$), and total patient resilience scores ($F=7.78$; $p=0.007$) increased significantly.⁷¹

- A randomized, controlled, double-blind study with 79 Brazilian patients (mean age 56.73 years; 63.3% men) with chronic kidney disease undergoing hemodialysis seeking to evaluate the effect of prayer (Christian supplication, without invocation of saints, based on Psalm 138, speaking of divine omniscience and performed at three distinct moments) demonstrated that: in the intervention group, there was a significant reduction in systolic blood pressure (from 145.9 to 136.9; $p<0.001$) and diastolic blood pressure (from 86.1 to 82.8; $p<0.001$), heart rate (from 75.6 to 71.4; $p<0.001$), and respiratory rate (from 18.5 to

17.2; $p < 0.001$); in the comparison between groups, a significant reduction in HR and RR was found in the intervention group.⁷²

- A cross-sectional study using data from the prospective cohort – Jackson Heart Study (JHS), in 2,967 African American adults (mean age 54.0 ± 12.3 years; 65.7% women), analyzing the association with the American Heart Association's Life's Simple 7 (LS7) indicators observed that private prayer was associated with a higher probability of achieving intermediate/ideal levels for diet (RR: 1.12; 95% CI: 1.03–1.22) and smoking reduction (RR: 1.24; 95% CI: 1.12–1.39); total spirituality was associated with higher odds of achieving intermediate/ideal levels of physical activity (RR: 1.11; 95% CI: 1.02–1.21) and smoking reduction (RR: 1.36; 95% CI: 1.21–1.53).⁷³

3.3.2.2. Meditation

The word meditation originated from the Latin verbs *meditari* (to think, to ponder) and *meditatio* (to reflect, to contemplate). It is important to note that the word was also adopted into French and English, and its concept evolved to encompass “an act of contemplation” associated with various spiritual practices aimed at mental and emotional clarity. The emergence of meditation practice dates back to 1500 BC, associated with Eastern philosophies and religions. Currently, the term “meditation” refers to practices of mental and emotional control in various religious contexts, including Christianity and Islam, but it is most frequently applied to the Eastern spiritual traditions of India, Tibet, China, and Japan (Hinduism, Buddhism, Taoism, and Jainism).^{74–76}

In medicine, Cardoso et al. proposed the definition of meditation as: “a procedure that must encompass a specific, clearly defined technique, involving psychophysical/muscular relaxation at some point during the process and logical relaxation; it is a necessarily self-induced state, using a self-focusing skill (termed an ‘anchor’).”⁷⁷

Meditation is based on the control of attention, involving temporarily shifting attention away from the outside world with

the silencing and harmonization of thoughts in order to focus on the chosen subject of meditation. There are different meditation practices: those that stem specifically from religious traditions; those that seek connection with spirituality without religious connotation; and those that propose to be purely mental training, detached from a religious/spiritual purpose. Meditation can be divided regarding the religious practices/traditions involved (Eastern and Western) and as a modern therapeutic technique (Western).⁷⁵

- Hinduism: Represented by *ekāgratā* (one-pointed concentration), *prāṇāyāma* (breath control), and *Kula* visualization (focus on chakras).

- Buddhism: The most common practices are meditation on the impure (visualization of a decomposing corpse), *Samatha* (calm abiding meditation), *Vipassana* (insight meditation), and *Koan* (reflection on paradoxical statements).

- Taoism: Involves inner cultivation (apophatic meditation), *Fuqi* (ingestion of qi energy), and *Neidan* (“inner alchemy”).

- Jainism: Key practices include *Samayika* (achieving equanimity through periods of stillness), *Preksha Dhyana* (meditation focused on observing subtle changes in the body, breath, consciousness, and emotions), *Anupreksha* (twelve contemplations; involving reflections on impermanence, solitude, compassion, and other themes to develop detachment and positive emotional states), and *Cara Bhavana* (four contemplations for character building).

- Christianity: Practiced through the *Jesus Prayer* (continuous repetition of a brief prayer), contemplation of divine light (meditating on God's light), *Lectio Divina* (various techniques focused on sacred scriptures), and devotional reading (reading religious texts and/or the Bible for reflection).

- Islam: Meditative practices expand on elements of ritual prayer, such as *Dhikr* (repetition of words praising and glorifying Allah), *Muraqaba* (contemplation of the “inner” heart), *Sama'* (meditation on religious music), and *Taffakur* (intentional reflection on the greatness of Allah).

- Judaism: Performed through letter permutation (technique of combining Hebrew letters),

Merkabah recitation (recitation of angelic names), and Hitbodedut (focus on intense religious emotions).

Complementary Therapeutics: Involves relaxation techniques (focusing on muscle contraction and relaxation), transcendental meditation (mantra recitation), and mindfulness-based therapies focused on the flow of consciousness. Mindfulness will be addressed in the next topic of this chapter due to its specific characteristics and techniques.

Regarding scientific research, meditation has sparked increasing interest among healthcare professionals and has been divided into: concentrative meditation (focused on an object); mindfulness (directed toward the perception of contents emerging in the mind); and contemplative (integrating both previous types). The effects of meditation are divided into: lasting changes (therapeutic); traits (in the person); and immediate experiences during meditation practice (states). Although there has been a significant increase in publications on the role of meditation in disease treatment, much research has been inconclusive and hindered by methodological limitations, partly due to the wide range of practices termed “meditation” with different contents and indications, involving various traditions (religious, spiritual, or none), and the lack of a definitive taxonomy.^{78,79}

In Western countries, meditation is adopted both as a spiritual practice and as a “mind-body” complementary therapeutic intervention. The World Health Organization (WHO) encourages the recognition, inclusion, and utilization of Traditional, Complementary, and Integrative Medicine (TCIM) in healthcare systems globally. Since 2018, in Brazil, meditation has been incorporated as one of the 29 Integrative and Complementary Health Practices (PICS) offered in the Unified Health System (SUS).^{79,80}

The Brazilian Ministry of Health established a partnership with the Latin American and Caribbean Center on Health Sciences Information (BIREME-PAHO-WHO) and the Brazilian Academic Consortium for Integrative Health (CABSIN) to develop Evidence Maps on PICS (ME-PICS), seeking to concisely describe different interventions

and their health outcomes, including those related to meditation and cardiovascular diseases (CVD). The 2021 and 2022 ME-PICS demonstrated that meditation in CVD patients led to: reduction in obesity and binge eating; reduction in systolic and diastolic blood pressure; lower glycemia and glycated hemoglobin (HbA1c); reduced number of hospitalizations; improved quality of life; and increased exercise tolerance.^{81,82}

In 2017, the American Heart Association published an official scientific statement considering the adoption of meditation as a useful complementary clinical practice in reducing cardiovascular risk in individuals interested in this lifestyle modification, due to its low cost, minimal associated risks, broad accessibility, and potential benefits (still to be confirmed by additional studies).⁷⁶

Neurophysiological and neuroanatomical studies demonstrate that meditation can have lasting effects on the brain, providing biological plausibility for beneficial consequences on baseline physiological states and cardiovascular risk. Regarding cardiovascular risk, some studies suggested possible benefits in the physiological response to stress, smoking cessation, blood pressure reduction, insulin resistance and metabolic syndrome, endothelial function, inducible myocardial ischemia, and primary and secondary prevention of CVD.

In recent years, the Brazilian Society of Cardiology (SBC) has published guidelines addressing meditation and R/S:

- Update of the Cardiovascular Prevention Guideline (2019): Presented as recommendations for practices in spirituality and health: meditation, relaxation techniques, and stress management with Class of Recommendation (COR): IIa and Level of Evidence (LOE): B; spirituality and religiosity potentially increase survival (COR: IIa, LOE: B).⁸³
- Brazilian Guidelines for Arterial Hypertension (2020): Presented transcendental meditation (COR: IIb, LOE: B) as a behavioral therapy for stress control/management, with a possible reduction in systolic and diastolic pressure levels. However, more studies are needed to elucidate the mechanisms by which meditation reduces BP.⁸⁴

Other reviews on the potential benefits of meditation have presented effects on:^{74,82,85–87}

- Immune System: Decrease in nuclear factor-kappa B (NF- κ B) and C-reactive protein (CRP) levels; reduction in methylation of tumor necrosis factor genes related to psychosocial stress in women.
- Genetics: Some studies suggest meditation affects cells at the epigenetic level, increasing telomere length (chromosomes linked to cell death) and telomerase levels, leading to increased cellular lifespan.
- Hormonal and Organ Physiology: Practice can acutely cause changes in cerebral blood flow, electroencephalographic activity, shifts in neurotransmitter concentrations, heart rate reduction, drop in oxygen consumption and carbon dioxide production, reduction in body temperature, increase in blood volume, reduction in blood lactate, and decrease in peripheral vascular resistance. Constant practice is associated with modification of thyroid-stimulating hormone and growth hormone levels.
- Physical Health: Some studies observed a reduction in resting heart rate and smoking urge; hypertensive patients using antihypertensives showed better systolic blood pressure control; in diabetes and hypertension, a significant decrease occurred in LDL levels and expression of inflammatory genes (NF- κ B 2, RELA, and interleukin 1 B – IL1-B); reduction in intensity and frequency of pain crises in fibromyalgia and chronic inflammatory conditions, including asthma and rheumatoid arthritis.
- Mental Health: Benefits include positive emotional reinforcement with increased happiness and mood; improvement in sleep, focus, and anxiety signs; demonstrated to decrease the impact of suicidal thoughts and behaviors and favor expanded social contact that helps reduce loneliness.

Although meditation appears to be popularly known and accepted, its use in R/S as a complementary therapy should only be done after a consultation involving a spiritual anamnesis. In this consultation, the physician will evaluate the patient's Re/Sp beliefs and practices, how spirituality influences their health and disease coping, and attempt to recognize if the patient is seeking spiritual comfort and/

or lifestyle modification.

The patient must be given complete autonomy regarding the decision to practice meditation, and any form of pressure or coercion by the physician to adopt a specific spiritual practice is prohibited. When accepted, the integration of meditation into the care plan should be personalized, respecting and valuing the patient's Re/Sp practices. Due to the wide variety of meditations, a brief presentation of the main types/functions to the patient is recommended, which may include:^{40,75}

Guided meditation: Using recordings that lead the patient through specific prayers, thoughts, or spiritual reflections of their tradition.

Repetitive meditation (mantra, Dhikr, or Jesus Prayer): Involving the repetition of words, phrases, or prayers meaningful to the patient.

Contemplative meditation: Focused on deep reflection on a spiritual theme, a religious passage, or a divine/transcendent aspect.

Mindfulness meditation: Which can be adapted to integrate the contemplation of sacred texts or spiritual themes.

Yoga and Tai Chi: Practices combining physical movement, breathing, and meditation, which may also have a spiritual dimension for some patients.

Table 1 presents an illustrative example of a respectful and sensitive medical dialogue, with a sequence of statements involved in approaching the patient, including the recommendation of meditation in the context of spirituality. Important points to consider before recommending meditation:

- Verify if the proposed frequency/duration of meditation aligns with the patient's routine, availability, and health condition.
- Prefer starting with short sessions with a gradual increase, allowing for monitoring and adjustments based on the patient's experience.
- Provide information on additional resources available, such as religious or spiritual meditation groups, apps, guided recordings, or qualified professionals/teachers regarding the patient's meditation and/or religious tradition.
- Check if the patient will need the participation and support of a family member/caregiver to facilitate the practice (e.g., elderly patients;

those with physical limitations, etc.).

- Do not create excessive expectations and/or unfounded promises of results from the practice of meditation.

In relation to scientific research on meditation, R/S, and health, there is a variety of scales and scores that allow for the evaluation of different dimensions of the intervention, the main ones being:^{15,79,85}

Specific scales for meditative experiences (excluding mindfulness): States of Consciousness

Questionnaire (SOCQ) used to evaluate different states of consciousness, including those induced by meditation; Effects of Meditation Scale (EOM) which evaluates experiences during meditation and their effects on daily life, with subscales including cognitive, emotional, and transcendental aspects; Mystical Experience Questionnaire (MEQ) which evaluates mystical experiences that may occur during meditation.

Quality of Life Scales: Short Form Health Survey (SF-36); World Health Organization

Chart 1 — Physician dialogue illustrating how to approach and recommend meditation to the patient.

General guidelines regarding physician-patient dialogue concerning meditation.*
Following the completion of the spiritual history and the identification of the clinical relevance of recommending meditation as an intervention.
The physician’s statements to the patient: 1st) “Considering your profound faith [specify the faith, if known] and your report of spiritual connection, meditation may be a relevant complement to your treatment and well-being.” 2nd) “Meditation involves... [briefly describe the type/function]. It will serve as support for your comfort, inner peace, quality of life, and... [specify other scientifically proven benefits for the patient’s case]. Meditation does not represent additional risks to your treatment/illness [if there is any risk, present it].” 3rd) “The choice/decision to practice meditation is entirely yours; it will not interfere with any treatments we are already performing, nor will it modify your consultation routine.”
Clarify all patient doubts up to this point. If the patient expresses free and voluntary acceptance, proceed.
4th) “I suggest that you try [e.g., contemplative; or another type based on patient preference] meditation for... [e.g., 10-15 minutes daily], at a time that is peaceful for you. You may focus on... [e.g., scriptural passages that bring you comfort or reflections on the divine presence in your life].” 5th) “If you wish, we can also utilize the support of other professionals accustomed to providing guidance on meditation, including the meditative prayer group in your community [if applicable] or even recordings of guided meditations within your religious tradition.” 6th) “We will discuss during our next consultation how this practice is impacting your emotional and spiritual well-being, and we can adjust the approach as necessary.” 7th) “Remember that meditation is a complementary measure and does not replace the conventional (traditional) treatments I have prescribed.” 8th) “Do you have any questions? Do you need me to repeat any guidance?”

* This dialogue is purely illustrative, addressing some of the basic aspects of guidance. Regardless of the meditation chosen, the physician must be familiar with and adequately trained in its indication, monitoring, and/or guidance on its practice. The language may require adjustments to suit the patient, including their religiousness/spirituality.

Quality of Life – Spirituality, Religiousness and Personal Beliefs (WHOQOL-SRPB).

Spiritual Well-being Scales: Functional Assessment of Chronic Illness Therapy – Spiritual Well-being Scale (FACIT-Sp); Spiritual Well-Being Scale (SWBS); WHOQOL-SRPB; Daily Spiritual Experiences Scale (DSES); Spiritual Health and Life-Orientation Measure (SHALOM); Spiritual Transcendence Scale (STS).

Relevant publications addressing meditation in relation to R/S in CVD patients include:

- A systematic review to describe the effect of cognitive-behavioral strategies on pain, dyspnea, fatigue, and sleep disorders in patients with heart failure selected nine studies with experimental designs, seven of which demonstrated improved symptom outcomes. Meditation, relaxation techniques, and guided imagery or combinations of these strategies resulted in less dyspnea and improved sleep quality. Symptom-related quality of life showed improvement with meditation compared to attention control and usual care conditions.⁸⁸

- An integrative review using methods described by Whitemore and Knafl, selecting six studies (four articles with samples from the United States, one from Brazil, and one from Sweden) totaling 320 participants with heart failure (HF), observed that meditation practice significantly improved depression ($p < 0.05$), social support ($p < 0.05$), biophysical factors, and quality of life ($p < 0.05$), in addition to reducing the symptom burden associated with HF.⁸⁹

- A randomized controlled trial with 201 African American participants (mean age 59.0 years; 58.6% men) with coronary artery disease included in a transcendental meditation program with an average follow-up of 5.4 years showed: a 48% risk reduction (RR: 0.52; 95% CI: 0.29–0.92; $p = 0.025$) for primary endpoints (all-cause mortality, myocardial infarction, or stroke); a 4.9 mmHg reduction in systolic blood pressure (95% CI: –8.3 to –1.5 mmHg; $p = 0.01$); and a reduction in anger expression ($p < 0.05$).⁹⁰

3.3.2.3. Mindfulness

Mindfulness (in this book, the Portuguese term

atenção plena will be adopted as the standard) is a form of meditation originating within the context of the Buddhist tradition (5th century BC) and adapted for the West by Jon Kabat-Zinn (at the University of Massachusetts Medical Center, 1979) as a program designed for stress reduction in situations of pain and suffering. The English word mindfulness was chosen as the closest term capturing the essence of the Buddhist concept *sati* (Pali language, the original language of the Buddha), which represents being attentive, attention, memory, remembering, and recalling.^{91–93}

Knowledge and techniques regarding mindfulness (MF) have evolved; it can currently be defined as a specific meditation technique centered on self-knowledge, requiring no specific religious/cultural belief system, with the potential to cause personal development and the strengthening of healthy qualities (kindness and compassion), and can be integrated into some cognitive-behavioral therapies. There is potential for spiritual development in MF, but it generally does not correspond to the patient's religious/spiritual (R/S) construction process, being limited to specific types of practices in some religious traditions. An example of this is the practice of hesychasm in the Orthodox Catholic Church tradition, corresponding to a process of interior retreat through the cessation of the senses, aiming to obtain experiential knowledge of God.^{92–98}

MF is an active cognitive process of perceiving novelty and requires intentional concentration on the present moment, avoiding and dismissing everyday thoughts, feelings, and situations that cause suffering (without judgment or concern for the future). MF seeks to develop “experiential understandings,” which correspond to the insights arising during the applied practice of direct observation of one's own mind, body, and emotions, rather than theoretical learning through verbal or intellectual explanations.^{92–96}

Today, MF involves a myriad of practices and programs with a wide variety of elements, including associations with other meditations, such as those that develop compassion or insight. In recent years, several researchers have proposed divisions and classifications for

meditation practices, generally emphasizing the underlying cognitive mechanisms and their applications. However, due to the complexity of MF, there is no single way to classify it. In a simplified manner, MF involves four groups of mindfulness practices (MFP):^{99–101}

- Cultivating attention to the present moment, as a somatic and sensory experience.
- Cultivating a non-reactive attitude, without resistance or judgment regarding the experience.
- Cultivating healthy and pro-social mental habits, such as the desire to alleviate suffering (compassion).
- Cultivating the capacity to recognize and deconstruct perceptual, cognitive, and affective experiences and biases, better understanding the nature of the experience and the experiencer (wisdom).

Another relevant point is that MFP may have distinct intentions regarding the experiential understanding to be achieved:

- How experience contributes to mental suffering and well-being.
- Understanding the changing nature of the body, mind, and external phenomena.
- The relationship between the sense of identity and mental suffering and well-being.
- How positive and pro-social mental states contribute to well-being. The first three intentions are based on the classical Buddhist tradition of understanding the causes of mental suffering and alleviating it: 1) dukkha, meaning dissatisfaction and suffering; 2) anicca (impermanence); 3) anatta (non-self). The fourth intention is based on healthy Buddhist mental states (Brahmaviharas): “loving-kindness,” “compassion,” “joy,” and “equanimity.” It is important to emphasize that each of the four intentions, when applied to the four groups, leads to different types of experiential understandings, which vary across the diverse existing MF practices.^{93,99,100}

In medicine, MFPs are used as complementary therapeutic interventions that encourage individuals to promote awareness, clear thinking, and emotional balance, cultivating compassionate attitudes through meditation, yoga, group discussion, and daily contemplative practices. MFPs are commonly investigated and associated with

the following benefits: decreased perception of and increased tolerance for painful conditions; relief of physical symptoms associated with diseases and physical disabilities; reduction of stress, anxiety, and/or depression; reduction in medication use (especially analgesics, anxiolytics, and/or antidepressants); reduction of alcohol consumption disorders and substance misuse, and relapse prevention; improved adherence to medical treatments; enhancement of coping strategies and self-management of chronic, severe, and/or terminal illnesses; increased motivation for lifestyle changes (e.g., weight reduction, physical activity, smoking cessation, etc.); improvement in quality of life; enrichment of personal relationships and social connection; improvement in the physician-patient-family relationship; and promotion of changes in biological pathways, such as the autonomous nervous system, neuroendocrine function, and the immune system (e.g., specific markers of inflammation, cellular immunity, and immune cell aging).^{91,95,102–104}

MFPs have also been used by healthcare professionals themselves, particularly physicians, to: improve learning, concentration, performance, mental health, and well-being during medical training (undergraduate and residency); improve satisfaction with professional activity/practice; improve mental focus during physically strenuous and challenging tasks (e.g., surgery); reduce negative sensations such as stress, intolerance, impatience, anger, and frustration; increase resilience to burnout; stimulate compassionate engagement and empathy with the patient/family; increase satisfaction and performance in technical/administrative activities; stimulate academic/scientific productivity; and improve quality of life and general satisfaction.^{105–107}

The five main MFP techniques (Table 3) have clinically oriented objectives: Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT), and Mindfulness-Based Relapse Prevention (MBRP) are specifically centered on relieving symptoms, thoughts, and/or negative emotions, developing or improving ways to cope with them; Acceptance and Commitment Therapy (ACT) helps promote the acceptance of unwanted feelings and

thoughts, discouraging avoidance; Dialectical Behavior Therapy (DBT) seeks to reduce dangerous behaviors (e.g., suicidal behavior); both DBT and ACT help patients control their symptoms; and MBRP seeks to reduce relapse rates in individuals recovering from substance use disorders.^{75,108–121}

It is important to be aware that MFPs are constantly evolving, and new programs and adaptations emerge regularly, such as: Mindfulness-Based Eating Awareness Training (MB-EAT) for individuals to develop a healthier relationship with food and eating; Mindfulness-Based Childbirth and Parenting (MBCP), an adaptation of MBSR for pregnant women and parents focusing on awareness during pregnancy, childbirth, and parenting; and Mindfulness-Based Relationship Enhancement (MBRE), used to improve communication and intimacy in relationships. The specific structure and efficacy of each MFP may vary, and the physician should choose the program that meets the patient's needs, objectives, context of application, and the capacity for monitoring results.^{75,108–123}

The use of digital resources and applications for MF meditation is increasingly frequent, mainly in a popular manner, without physician indication or participation. However, more scientific research is still needed to test the structure, effectiveness, limitations, and adverse effects of this practice. Some examples of applications include Headspace®, Calm®, Insight Timer®, and Ten Percent Happier®. For online MF courses, the main platforms are Coursera®, Udemy®, and Mindful.org®.^{124–126}

Several scales and instruments are used to evaluate/quantify MF, primarily in research: Mindfulness Attention Awareness Scale (MAAS); Kentucky Inventory of Mindfulness Skills (KIMS); Freiburg Mindfulness Inventory (FMI; the Brazilian version is known as FMI-Br); Cognitive and Affective Mindfulness Scale-Revised (CAMS-R); Southampton Mindfulness Questionnaire (SMQ); Five Facet Mindfulness Questionnaire (FFMQ); Toronto Mindfulness Scale (TMS); Experiences Questionnaire (EQ); Mindfulness/Mindlessness Scale (MMS); and Philadelphia Mindfulness Scale (PHLMS).

These scales present important conceptual differences, including divergences regarding

what actually constitutes MF. Most are based on self-reporting, have different application contexts (e.g., health, sports, education, and daily life), and are often directed toward predominantly urban, young, university-level, and female populations. Furthermore, they exhibit varied psychometric analyses and still require more research to optimize reliability and create shorter forms.^{127–129}

Although MFPs are widely recognized as beneficial and used in clinical and hospital settings, unpleasant reactions during training are not uncommon (e.g., agitation, anxiety, discomfort, or confusion). However, these reactions are temporary and considered an important part of the psychotherapeutic process of self-knowledge and change. Severe adverse events (anxiety crises, mania, and psychosis) are rare and generally associated with the use of maladaptive coping techniques, primarily in patients hospitalized for depression, substance abuse, and chronic pain. More studies are needed to confirm and expand knowledge regarding these adverse events in these situations.^{130–132}

It is essential to consider that MFP is a complementary therapy that should only be indicated after a careful spiritual evaluation of the individual. The patient must be clearly informed about the nature of MF, its potential benefits and limitations, and that it will not replace their primary treatment. Participation must be voluntary, always respecting autonomy and decision-making.

MFPs should preferably be guided and monitored by properly educated and trained healthcare professionals to ensure safety, respect, and efficacy. They are generally applied by physicians (especially psychiatrists and family physicians), psychologists, nurses, occupational therapists, and physiotherapists. Interdisciplinary collaboration among healthcare professionals can facilitate access to MFPs and optimize patient benefits.

Table 1 – “Medical dialogue illustrating how to approach and recommend meditation to the patient,” presented in topic 3.3.2.2, can be used as an example of how to approach MFP with the patient, respecting the particularities and indications of this specific type of meditation.^{40,96,107,133}

Table 3 — Main mindfulness practices, their structure/technique, and potential benefits.^{75,108–121}

Practice*	Benefits	Structure/Technique
<i>Mindfulness-based stress reduction (MBSR)</i>	• Stress reduction and emotional regulation. • Improvement in coping with illness and chronic pain. • Enhanced self-awareness and interoception. • Enhanced focus and attention. • Increased sense of calm and relaxation. • Physical and spiritual well-being. • Improvement in sleep quality. • Improvement in immune function (indirectly) through stress reduction. • Increased sense of meaning and purpose. • Increased connection and interconnection. • Cultivation of compassion and kindness. • Greater acceptance and non-judgment. • Personal growth and self-discovery. • Exploration of transcendent consciousness (for some individuals).	Techniques may vary, but typically involve an eight-week program comprising: - Weekly sessions, with a duration of approximately 2 to 2.5 hours per session. - A full-day silent retreat, generally between the 6th and 7th weeks. - Mindfulness meditation utilizing various techniques, such as attending to the breath, bodily sensations, thoughts, and emotions. - Body scan utilizing a technique to bring awareness to different parts of the body. - Mindful movement: performance of gentle stretching and yoga-like exercises associated with mindfulness. - Didactic instruction through discussions and explorations of stress, perception, and communication. - Home practice: participants are expected to practice mindfulness daily at their residences (for 45 minutes to one hour).
<i>Mindfulness-based cognitive therapy (MBCT)</i>	• Reduction of psychological distress. • Improved emotional regulation. • Increased self-awareness. • Improvement in the ability to cope with chronic health conditions. • Potential for positive physiological changes associated with stress reduction, such as lower blood pressure and improved heart rate variability. • Improved sleep quality. • Improved cognitive function. • Increased acceptance and non-judgment. • Cultivation of compassion. • Sense of meaning and purpose. • Connection with the present moment. • Potential for transcendent experiences.	An 8-week program with weekly group sessions (up to 16 participants) lasting 2 to 2.5 hours each, including: - Psychoeducation providing information on mood disorders and the relationship between thoughts and feelings. - Daily home practice of mindfulness exercises (approximately 45 to 60 minutes). - Group discussion for sharing experiences and insights. - Follow-up classes (2-hour duration) conducted at the 6th week and 6th month post-program, including meditation and discussion regarding findings and challenges encountered.
<i>Dialectical behavior therapy (DBT)</i>	• Reduction of emotional distress through the management of intense emotions such as anger, sadness, anxiety, and shame. • Improvement in coping skills. • Tolerance of distress without resorting to harmful behaviors. • Improvement in interpersonal relationships. • Reduction of self-harm and suicidal ideation. • Management of other mental health conditions: depression; anxiety disorders; eating disorders; substance use disorders; post-traumatic stress disorder. • Reduction in psychiatric hospitalization rates. • Development of acceptance. • Stimulation of a wise mind. • Valuing and meaning of life. • Compassion and interconnection.	Normally involves four primary components: - Individual therapy corresponding to a weekly session focused on addressing the patient's specific issues. - Training group with weekly meetings (generally 1.5 to 2.5 hours) where participants learn specific behavioral mindfulness skills. - Telephone consultation (as needed): therapists may offer telephone guidance between sessions to assist clients in applying therapeutic skills to real-life situations and preventing crises. Additionally, the therapist team must meet regularly for self-support, maintaining treatment fidelity and preventing therapist burnout.
<i>Acceptance and commitment therapy (ACT)</i>	• Reduction of psychological distress: anxiety disorders, depression, obsessive-compulsive disorder, post-traumatic stress disorder, and chronic pain. • Increased distress tolerance, particularly for individuals with chronic pain or other persistent health conditions. • Improvement in quality of life. • Improvements in social, occupational, and personal relationships. • Positive behavioral changes that support well-being and personal goals. • Development of acceptance. • Present-moment awareness with a sense of connection and appreciation for life. • Ethical, moral, or spiritual values to guide one's life. • Committed action: acting in alignment with one's own values, even in the face of adversity.	It is frequently applied as an individual therapy. It can also be implemented in groups, typically with a flexible structure adapted to the needs of the individuals. Regardless of whether it is individual or group-based, it generally involves: - Experiential exercises: engaging in mindfulness practices, metaphors, and role-playing to help directly experience ACT processes. - Metaphors and analogies: utilizing stories and tales to illustrate core ACT concepts and make them more accessible. - Values clarification: through activities designed to help individuals identify their core values across different domains of life. - Behavioral experiments: seeking to test new ways of responding to difficult thoughts and feelings and engaging in actions consistent with one's values. - Residential practice of mindfulness skills.

Continued...

Table 3 (Continued) — Main mindfulness practices, their structure/technique, and potential benefits.^{75,108–121}

Practice*	Benefits	Structure/Technique
<i>Mindfulness-based relapse prevention (MBRP)</i>	• Teaches individuals to observe cravings without judgment and without responding automatically. • Greater awareness of internal triggers (thoughts, emotions, physical sensations) and external triggers (people, places, situations) that may precipitate relapse. • Improvement of coping skills. • Enhanced emotional regulation and increased stress tolerance. • Reduction in relapse rates among individuals in recovery from various substance use disorders. • Increased confidence in the ability to maintain sobriety. • Reduction in symptoms of concomitant mental health conditions (anxiety and depression). • Present-moment awareness. • Encouragement of the acceptance of difficult experiences. • Non-judgment: learning to observe thoughts and feelings without judgment to promote a sense of inner peace and detachment. • Connection with internal resources to develop a stronger sense of resilience. • Reassessment of values and the discovery of new meaning in life.	An eight-week program that typically involves: - Weekly two-hour group sessions facilitated by trained therapists. - Mindfulness meditation practices. - Relapse prevention strategies integrating cognitive-behavioral techniques to identify personal triggers and high-risk situations, and to develop coping plans. - Experiential exercises and group discussions to facilitate the application of mindfulness skills in relapse-related scenarios and the sharing of experiences. - Daily home mindfulness practice to integrate these skills into daily life.

* The selection of these practices was based on information obtained from a literature review and the authors' own observations; however, other types and programs of mindfulness exist. The structure and technique of each type of meditation may vary in duration and content, depending on its indication and the patients' needs. Regardless of the type, the physician must be familiar with their indications, monitoring, and/or referral to the support team.

Figure 1 presents the motivational factors for the adoption of MF and the integration of the main components involved in the practice, as well as some of the main effects and benefits regarding the physical, psychological, behavioral, and spiritual (indirectly) aspects.^{108,134–136}

There is promising but still inconclusive evidence of associations between MF and cardiovascular health and the control of risk factors for CVD (specifically hypertension, diabetes, physical activity, smoking, obesity, and diet). The cardiovascular effects of MFPs are attributed to:^{137–141}

Attention control (e.g., improved capacity for treatment adherence and control of CVD risk factors such as smoking, diet, and sedentary lifestyle).

Emotion regulation (e.g., reduction of stress, anxiety, and depression with the adoption of a positive coping stance).

Self-awareness (e.g., self-referential processing with awareness of their diseases and the need for treatment).

Some studies on patients with CVD and MFP:

- A randomized controlled clinical trial with 38 Brazilian patients (mean age 56.2 years; 65.8% men) with chronic HF (classes I and II) evaluated the impact of a stress reduction program compared to conventional multidisciplinary care in two specialized centers in Brazil. The data collection period occurred between April and October 2019. Participants were allocated to intervention or control groups. The intervention took place over 8 weeks and resulted in: a significant reduction in perceived stress (from 22.8 ± 4.3 to 14.3 ± 3.8 points; $p < 0.001$); significant improvement in quality of life ($p = 0.013$); mindfulness ($p = 0.041$); and sleep quality ($p < 0.001$).¹⁴²

- A meta-analysis reviewing 1,507 articles published from 2016 to 2018 selected 16 studies ($N = 1,476$; mean age 56 years; 40% women) testing the effects of MF-based interventions in adults with CVD. MFP was associated with better psychological outcomes (lower levels of anxiety, depression, suffering, and perceived stress: $d = 0.49$ to 0.64) and reduction in systolic blood pressure ($d = 0.89$; 95% CI: 0.26 – 1.51 ; $k = 7$), but not for diastolic ($d = 0.07$; 95%

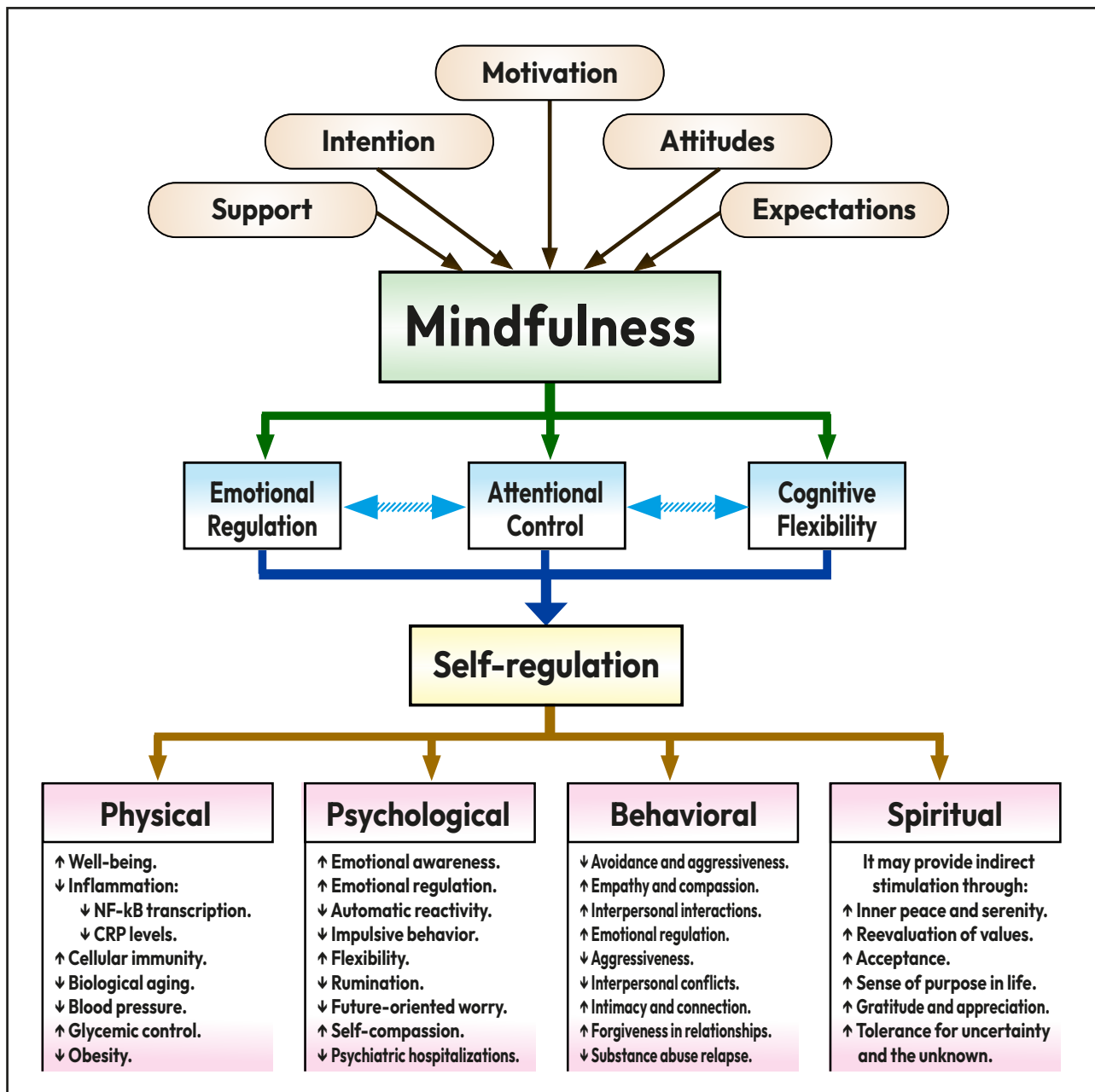


Figure 1 — Mindfulness – motivational factors, central components of the practice, and primary effects and benefits.^{108,134–136} ↑: increase/improve; ↓: decrease/reduce.

CI: -0.47-0.60; k=6). Based on the findings, the authors considered that a recommendation for MFP in CVD patients could reach a 2B indication (COR: 2; LOE: B).¹⁴³

- A meta-analysis of 19 randomized clinical trials investigating the effect of MFP on blood pressure (BP), including ambulatory blood pressure monitoring (ABPM) and isolated BP measurement, demonstrated: in ABPM, significant drops in total systolic BP (24 hours) of -3.77 mmHg (95% CI: -5.33 to -2.21) and a drop in total diastolic BP (24 hours) of -2.18

mmHg (95% CI: -4.28 to -0.09). Among the studies evaluating isolated BP measurement, significant drops were observed in systolic BP of -5.09 mmHg (95% CI: -6.34 to -3.85) and diastolic BP of -2.57 mmHg (95% CI: -3.36 to -1.79).¹⁴⁴

3.3.3. Complementary/Interactive Material

This book contains additional interactive

material (scientific, institutional, informative, etc.), which will allow for deeper exploration and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Mineira Society of Cardiology and the SBC and is accessible via the internet at the link and/or QR code presented below:



[Click to Access](#)

Meet the Spirituality and Cardiovascular Medicine Study Group (GEMCA/SMC/SBC) of the Minas Gerais Society of Cardiology.



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Access all chapters of the book for free in audio format (Portuguese) – Audiobook.



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Featured Articles – GEMCA: access a constantly updated selection of studies on religiosity and spirituality, featuring expert commentary and links to the publications.

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Chapter 3.4

Approach to Spirituality in Relation to Hope, Dignity, Compassion, Gratitude and Forgiveness

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3.4.1. Introduction

The growing understanding of the role of the interaction between physical, psychosocial, and spiritual dimensions in human health has stimulated a comprehensive approach to the religiosity and spirituality (R/S) of patients, including in relation to psychological constructs such as hope, dignity, compassion, gratitude, and forgiveness. Regarding religions, these constructs form the foundation of most beliefs, serving as central values of spiritual texts, practices, and teachings due to their capacity to influence and shape the moral, social, ethical, and spiritual framework of individuals. In the healthcare context, they are fundamental to an integral and humanized medical care approach, being associated with well-being, improved quality of life, more positive mental states, and greater treatment adherence.

The subsequent subchapters will address these constructs to enhance the understanding of their meanings and roles in the R/S approach, present the available evidence regarding their influence on the health-disease process, and discuss the possibilities for intervention and their therapeutic role. It is important to clarify that,

based on current available scientific evidence, all interventions related to these constructs have significant clinical relevance; however, they must be implemented as complementary to conventional therapeutics and never as a substitute.

3.4.2. Hope

Most people possess their own distinct conception of the meaning of hope, and there are several scientific definitions related to R/S. In a synthesized form, hope is a type of thought process involving a positive emotion associated with the expectation of a different future. It is considered an active and dynamic state of existential coping. Regarding religiosity, the theological virtue of hope — particularly in Christian religions — is understood as a life orientation based on faith in future happiness. In this context, God assumes the role of the provider of the means to achieve happiness, even when the individual is amidst difficulties, disabilities, illnesses, and human limitations.¹⁻⁴

An important point of reflection is that, although hope and optimism appear similar,

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optimism involves a positive expectation motivated by concrete external reasons, leading the patient to believe that everything will be fine because the result or cure is now attainable. Additionally, in optimism, the theological virtue of a future in God ceases to be one of the primary expectations. However, studies demonstrate that both hope and optimism correlate with lower levels of depression and anxiety.^{5,6}

Hope is a recurring topic within the fields of positive psychology and psychotherapy. Most patients consider it fundamental to have hope when they are ill (acutely or chronically), feel debilitated, or are at risk of death. Illness, especially when severe, is a factor of uncertainty regarding the individual's future, both in terms of survival and recovery, as well as the maintenance of autonomy and the performance of daily and professional activities. Hope generates expectations of a possible cure, or of living as normally as possible, having affirmative relationships (family and friends, healthcare professionals, or of a spiritual nature), and allowing for reconciliation with life and death.^{6,7}

Another relevant point is that there is no “standard quantity” of hope inherent to all individuals. The level of hope varies over time and is often determined by innate personality traits, environmental, social, and religious factors, and may be physiologically influenced by immunological modulators, neurotransmitters, affective states, and even underlying diseases such as cancer and heart failure (HF).^{1,2,8,9}

Furthermore, a reduction in the levels of hope differs from the condition of hopelessness. Hopelessness consists of cognitive schemas in which negative expectations regarding the future are evident, with prevailing feelings of disbelief, despair, resignation, and a complete loss of hope, being closely related to suicidal ideation. It also correlates with a higher incidence of comorbidities and morbidity-mortality in patients with cardiovascular disease (CVD). Hopelessness is considered a core symptom of a depressive condition

and is harmful because it is associated with severe maladaptive behaviors, requiring psychiatric intervention.^{9–12}

At the other extreme, a “high degree of hope” can be observed when a patient receives an adequate intervention to restore their levels, including improved quality of life, expression of feelings of optimism and motivation, renewed interest in religious practices, and reaffirmation of faith.^{13,14}

Various methods have been developed to evaluate and measure hope in diverse situations objectively and versatily, particularly in scientific research. Currently, the most widely used general hope measurement scale is the Adult Hope Scale (AHS; also known as “Snyder’s Hope Scale”), with a translated and validated version for European Portuguese (VTVP), developed to evaluate hope as a stable trait rather than a fleeting psychological state. The AHS seeks to capture information regarding the hope inherent in an individual’s personality and is relatively indifferent to daily events.^{3,15}

Another widely used scale is the State Hope Scale (SHS), which was developed to capture fluctuations/changes in hope levels over hours, days, weeks, or months.^{9,16,17}

The expression of words/terms related to the construct of hope during the spiritual anamnesis (see examples in Appendix 1) can reveal important aspects of the patient’s mental, emotional, and spiritual state. Beyond word content, the way individuals verbalize their feelings, beliefs, and expectations regarding the future (cognitive, emotional, motivational, existential, spiritual) can be a crucial indicator of mental health status: body language (e.g., hunched posture, tearful face, hands covering the face), voice intonation (e.g., angry tone, speaking softly), and the context in which these expressions occurred (e.g., spontaneous, after the explanation of a disease).^{3,6,18–25}

There are also scales to evaluate specific aspects of hope, the primary ones being: the Goal-Specific Hope Scale (GSHS), which monitors hope regarding an indicator defined by a researcher, clinician, or the patient

themselves (for example, in evaluating the effectiveness of an intervention in increasing hope); the Herth Hope Index (HHI), a 12-item adapted version of the Herth Hope Scale evaluating temporality, positive readiness, expectations, and interconnectivity; the Domain-Specific Hope Scale (DSHS), which contains subscales evaluating hope in six areas of life: social, academic, family and home, romantic, professional, and leisure; the Integrative Hope Scale (IHS), used to measure dimensions such as trust, positive orientation toward the future, social relationships, personal values, and lack of perspective; and the Children's Hope Scale (CHS), developed for use in individuals aged 8 to 16 years. The use of hope scales is consolidated in scientific research and in patients with chronic/severe illnesses and/or in palliative care; however, in the initial approach to clinical patients, it is suggested to first apply general R/S scales.^{8,9,17,18}

Current scientific evidence confirms that it is possible to work on hope within the context of the physician-patient relationship. The promotion of hope should be considered part of the treatment context for various diseases, the pursuit of well-being (physical and emotional), and the improvement of the quality of life for the patient and family members, being fundamental for good clinical practice.^{26,27}

Interventions regarding hope must always respect the patient's autonomy to address or not address their spirituality and religious beliefs. Table 1 presents a compilation of the primary interventions to stimulate hope and prevent hopelessness. Interventions require that the healthcare team receive prior and adequate training for their application, being directed toward the promotion of hope in patients with chronic diseases (e.g., HF, diabetes, cancer, and multiple sclerosis). Generally, the outcomes achieved are: better coping and emotional adjustment to illnesses/treatments; improved quality of life; greater spirituality and sense of purpose in life; improved self-esteem; and greater resilience. Programs can be applied individually or in groups

(usually 4 to 12 sessions lasting 0.5h to 2h), the main ones being: Brief Hope Intervention (originating in China); Living with Hope Program (Canada); HOPE-IN (Norway); HOPE: MS - Help to Overcome Problems Effectively Self Management (United Kingdom); and Hope Therapy Program (Iran).^{7,28-30}

Additional scientific publications on hope and religious/spiritual interventions (R/S) in patients with CVD:

- A descriptive/correlational study of 500 Iranian patients (mean age 60.68±10.34 years; 52.4% women) hospitalized for cardiovascular disease observed that the mean Herth Hope Index score was 34.80 (SD: 5.05), with the predictors for higher levels of hope being: married status ($p<0.001$); higher education ($p<0.001$); good economic status ($p<0.001$); and spiritual well-being ($p<0.001$).³¹

- A cross-sectional study of 70 adults (mean age 60.29±12.33 years; 53% women) in the preoperative period for cardiac surgery at a university hospital (São Paulo/Brazil) performed a sociodemographic survey of CVD risk factors and hope levels using the Herth Hope Scale. The study demonstrated a high prevalence of modifiable risk factors and found that having a religion (37.53±4.57) and practicing it (38.79±4.25), regardless of denomination and time dedicated, were associated with hope ($p<0.01$). However, hope did not show a significant correlation with age ($p=0.09$) or time dedicated to religious practice ($p=0.07$).³²

- A randomized prospective study of 70 patients with advanced heart failure (at a university hospital in China) and their respective family caregivers (dyad: patient + family member) subjected to dignity therapy (online) in one group for 4 weeks and another group for 8 weeks, compared to a control group, demonstrated a significant improvement in hope levels, well-being, family interaction, and quality of life in the intervention groups, regardless of duration. Family caregivers also showed a reduction in anxiety ($p=0.002$) and depression ($p=0.016$).³³

Table 1 — Interventions to stimulate hope and prevent hopelessness.^{26–29}

Attribute/Component	Rationale	Interventions*
Experiential process (the pain of hope)	It involves the recognition and acceptance of suffering as part of the human experience. Addressing the acceptance of suffering (physical, psychological, social, and spiritual) allows for enhanced creativity, greater resilience to modify experiences, the pursuit of overcoming challenges, and the revival of hope.	- Encourage a realistic assessment of the situation and/or illness. - Encourage the patient/family to transcend the current situation. - Utilize humor and joy in a measured and appropriate manner. - Encourage aesthetic experiences, personal hygiene, and grooming. - Encourage involvement in creative and enjoyable activities. - Encourage the patient/family to recall/relive gratifying and joyful moments. - Stimulate the patient to adopt positive attitudes: patience, courage, and persistence. - Share positive and inspiring stories of hope. - Encourage the patient/family to verbally express positive self-reflections.
Spiritual/transcendent process (the soul of hope)	It involves the incorporation of a transcendental dimension of life, including: the meaning of life; forgiveness or acceptance; reaffirmation of religious faith; interpersonal relationships; and transcendence. As a spiritual process, hope is sustained by faith (in oneself and in others).	- Assist the patient/family in the search for the spiritual meaning of the situation. - Facilitate participation in religious rituals and spiritual practices. - Referral to a chaplain or other spiritual care provider. - Assist the patient/family in maintaining daily communication and strengthening relationship bonds. - Encourage reconciliation between the patient and family members, reinforcing the bonds of faith. - Suggest literature, films, and art that explore the meaning of suffering and the theological virtue of hope. - Revive theological faith and the determination to persevere.
Relational/affective process (the heart of hope)	It is an interpersonal process that requires recognition and acceptance of others. A supportive family environment with a sense of connection to others can foster hope, regardless of the patient's age or health condition.	- Minimize patient/family isolation. - Establish and maintain new personal relationships (friends). - Strengthen the self-esteem of the patient/family. - Recognize and reinforce the reciprocity of hope among the patient, family, and healthcare professionals. - Encourage relationships that foster affective connections and mutual support. - Reserve time for collective social engagement (e.g., social clubs). - Assist the patient in identifying significant people/objects. - Reflect with the patient on the characteristics and experiences that typically connect them to others.
Cognitive process/rational thinking (the mind of hope)	It is a process in which the patient is actively involved by maintaining the expectation of achieving concrete goals and is strengthened by a sense of control over their own destiny. In this process, hope is associated with: a positive mental attitude; the definition of goals and objectives; life planning; and the assessment of the probability of success.	- Increase the sense of control by assisting the patient/family in establishing and reviewing objectives, without the imposition of deadlines or a fixed agenda. - Identification of available personal and external resources and seeking those missing to achieve the objectives. - Assist in fragmenting broad objectives into small goals (to increase the sense of success). - Help in living one day at a time, identifying achieved successes. - According to the patient's condition, address and prepare them for the possibility of negative outcomes. - Facilitate monitoring of the condition and assessment of current reality.

* The selection of these interventions was based on information obtained from systematic reviews, meta-analyses, and the authors' own observations. However, other forms/programs of interventions exist, including individual psychotherapy. Regardless of the intervention, the physician must be familiar with and adequately trained for their indication, monitoring, and/or implementation. Adapted from: Laranjeira et al. Hope-based interventions in chronic disease: an integrative review in the light of Nightingale.²⁸

3.4.3. Dignity

Dignity is considered one of the fundamental principles of life and human rights, being studied by various fields of knowledge (theology, philosophy, sociology, law, bioethics, medicine, etc.). The word dignity derives from the Latin *decus* (distinction, honor, glory, and esteem) and *dignitas* (“an individual’s or group’s sense of self-respect and self-esteem”). The concept of dignity in medicine is complex; however, the most widely used definition is: the way an individual feels, thinks, and behaves in relation to inherent self-worth and extrinsic self-worth, associated with others.^{34,35}

Dignity is of particular interest in the domain of spirituality, as it was in this context that it was first conceptualized and continues to be extensively studied. Although formal definitions of spirituality do not explicitly mention dignity — as is also the case with other interrelated terms (hope, peace of mind, gratitude, and God) — its centrality is implicit and part of the doctrinal statements of faith.^{19,36}

Routinely, dignity is divided into two categories: intrinsic (also referred to as human,

basic, spiritual, or absolute), defined as an inherent and inalienable self-worth present in all human beings; and extrinsic (also referred to as social, merit-based, or relative), which corresponds to an acquired sense of self-worth that can be measured by others and is generally influenced by the social interaction of individuals.

Figure 1 presents the types of dignity, highlighting their primary characteristics and the factors related to diseases and social issues that cause a reduction in its level.^{19,35}

In medicine, Chochinov et al. proposed a framework for the constitution of dignity based on its primary sources (including the patient’s perspective), composed of:^{37,38}

- **Autonomy/control:** corresponding to independence, intact cognition, and decision-making.
- **Respect for the human being:** empathetic care, privacy, and space.
- **Self-esteem:** associated with self-identity, the preservation of the continuity of the self, and dignity/worth.
- **Family connection:** based on family support, communication, and expression.
- **Acceptance:** seeking to admit the impermanence

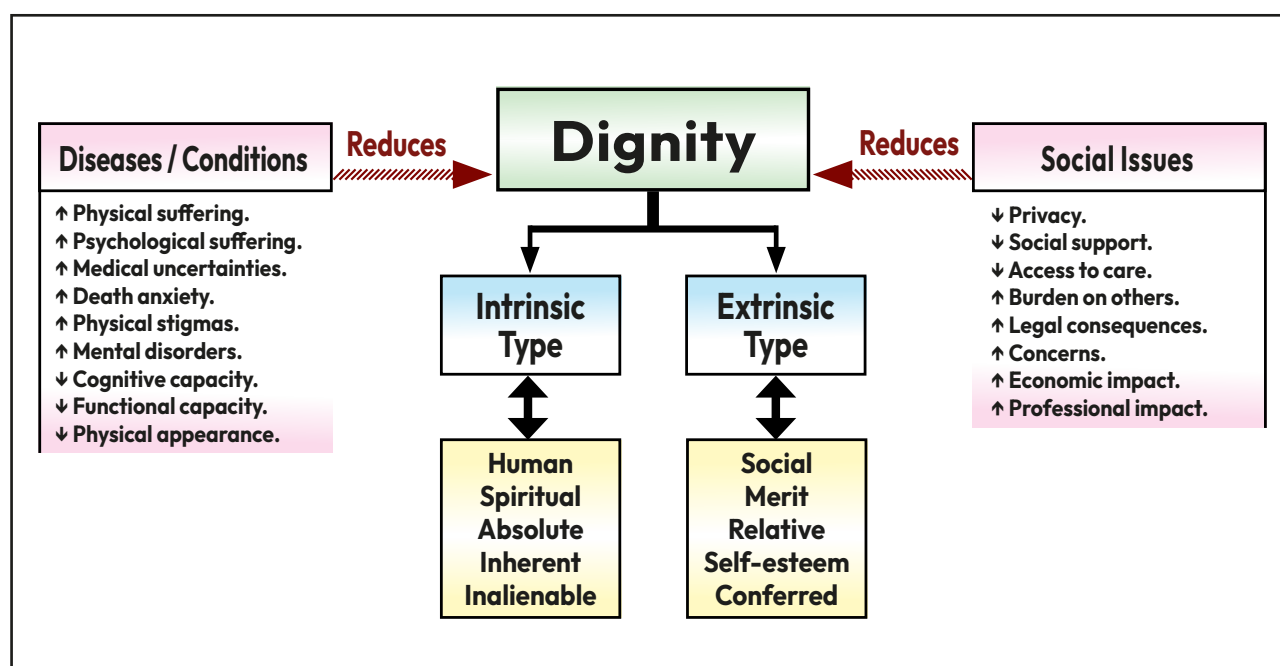


Figure 1 — Types of dignity and factors associated with their reduction.^{19,35} ↑: increase; ↓: reduction.

of life, the proximity of death, and living in the moment.

- Hope/future: having hope and maintaining future planning.
- God/religion: based on faith and trust in the divine/transcendent.

Studies have demonstrated that dignity is a frequent primary concern for hospitalized patients and is considered an inseparable component of life, without which “life is not worth living,” being highly important for well-being. There are three possible trajectories for the evolution of dignity in patients with chronic/debilitating diseases: dynamic equilibrium, characterized by a temporary decrease in the sense of dignity followed by a return to previous levels; a downward trend, where the sense of dignity decreases with disease progression and does not return to previous levels; and stability, in which the sense of dignity remains unchanged despite changes in circumstances.^{36,39}

The loss of dignity has been associated with the occurrence/aggravation of physical symptoms (e.g., weakness, pain, dyspnea, etc.) and psychological symptoms (e.g., anxiety, sadness, irritability, etc.). Offering dignified care to patients, including those hospitalized, is essential for quality and safe medical practice. Treating patients with dignity is an independent factor related to higher satisfaction, treatment adherence, and receptivity to health improvement and disease prevention care.^{34,40,41}

During the spiritual anamnesis, the physician should be attentive to the patient’s speech, seeking to identify words and expressions that may denote alterations in dignity: decreased self-dignity; devaluation of the person; self-disrespect; loss of dignity; feelings of inferiority, humiliation, failure, and shame; being a burden (to others); feelings of exclusion (isolation); spiritual disconnection; destructive self-criticism; severe judgment; hopelessness (regarding oneself); and speech associated with intolerance, prejudice, arrogance, and dehumanization (of oneself and by others). Appendix 1 provides a list of examples of words and phrases that exemplify these alterations.^{3,6,18–25}

Some of the primary tools used to evaluate/

quantify dignity directly (dignity as a concept) or indirectly (its possible components) are:^{34,35,42,43}

Patient Dignity Question (PDQ): involves simply asking patients, “What do I need to know about you as a person to give you the best care possible?” Although seemingly simple, it has been very useful for palliative care professionals and in primary healthcare.

Measurement Instrument for Dignity AMsterdam (MIDAM): consists of a 26-item questionnaire (symptoms or experiences) categorized into 4 domains: evaluation of self in relation to others; functional state; mental state; and aspects of received care and situational factors.

Dignity Card-sort Tool (DCT): a classification using “dignity cards” developed to categorize factors influencing the loss or preservation of dignity at the end-of-life stage.

Inpatient Dignity Scale (IPDS): a 35-item questionnaire addressing dignity in relation to types of respect: for the human being; for personal feelings; for time; for privacy; and for autonomy.

Patient Dignity Inventory (PDI): a questionnaire composed of 24 items of analysis, including subscales for symptomatic distress, existential distress, dependency, peace of mind, and social support. The PDI has been translated and validated for various fields (palliative care, oncology, psychiatry, geriatrics, and cardiology).

Dignity Impact (DI): an additional 7-item scale derived from the Patient Feedback Questionnaire after receiving dignity therapy, used to examine the impact and change in individual perception following dignity-oriented interventions.

The incorporation of dignity-oriented assessments and interventions as a routine part of all interactions with patients with chronic and/or severe diseases in all contexts (e.g., outpatient units, hospitals, emergency services, palliative care, clinics, etc.) is currently being encouraged. According to current evidence, dignity-oriented interventions involve several possible actions, considering the influence of diseases, social issues, themes and subthemes regarding the preservation of dignity, and the care provided

by professionals (Table 2).^{35,37,41,44,45}

A recognized R/S intervention for dignity conservation is Dignity Therapy (DT), a model of brief and individualized psychotherapy (multidimensional psychosocial intervention) used in the care of patients facing serious illnesses and for the relief of psychosocial and spiritual suffering in the final stages of life. DT focuses on dignity conservation through spiritual, psychosocial, and physical interventions and is frequently incorporated into the routine of palliative care, including for patients with refractory coronary artery disease (CAD) and/or severe heart failure (HF). Research and the use of DT in outpatient patients with CVD are still in the initial stages.^{36,36,46}

Chapter 3.1 of this section presented more details regarding the incorporation of dignity-oriented interventions, including a flowchart illustrating its use in clinical practice and in patients with CVD.

Studies in patients with CVD regarding dignity-based R/S interventions:

A descriptive cross-sectional study of 200 patients with CVD (mean age 59.0 ± 17.0 years) admitted to intensive care units (ICU) found a low level of perceived dignity (score 3.60 ± 1.39), with the primary associated factors being:

loss of independence (3.94 ± 1.06); emotional suffering (3.63 ± 1.37); uncertainty about the future (3.57 ± 1.20); and changes in mental capacity and image (3.30 ± 2.08).⁴⁷

A cross-sectional study with 101 participants (mean age 72.23 years; 68% male) with CVD (88.1% with CAD and a 43.0% prevalence of HF) to investigate the relationships between dignity, resilience, and quality of life demonstrated that: the sense of dignity was significantly associated with quality of life (partial correlation coefficient: 0.605; 95% CI: 0.391-0.757; $t = 6.347$; $p < 0.001$); only when dignity was associated with resilience was a 73.0% explanation of the variance in quality of life achieved in these patients.⁴⁸

A cross-sectional study of 300 patients hospitalized for HF (mean age 64.15 years; 50% men) sought to determine the relationship between dignity and medication adherence. The mean medication adherence score was 5.82 (low adherence) and dignity assessed by the Patient Dignity Inventory questionnaire was 81.39. Even after adjusting for confounding variables, it was observed that the greater the impairment of dignity (less dignity), the lower the levels of medication adherence ($r = -0.6$; $p < 0.001$).⁴⁹

Table 2 — Main categories, themes, subthemes, and interventions regarding dignity.^{35,37,41,44,45}

Influence of Illness on Dignity	Dignity-Conserving Perspectives	Dignity-Conserving Practices*	Dignity in Patient Care / Treatment	Social Issues of Dignity
→ Symptoms of distress: • Physical. • Psychological: - Medical uncertainty. - Death anxiety. - Stigma. - Mental disorders. → Level of independence: • Cognitive capacity. • Functional capacity. • Physical appearance.	→ Continuity of self. → Preservation of function. → Generativity, legacy, and memories. → Maintenance of pride. → Hope. → Being informed and having autonomy. → Acceptance of life and death. → Resilience/fighting spirit. → Recognizing regret. → Sense of security.	→ Living in the moment. → Maintaining a routine/normality. → Seeking spiritual comfort. • Understanding the disease and risks. • Seeking the meaning of life. • Expressing love and gratitude. • Chaplaincy/faith community. • Dignity therapy. → Connection with family/friends. → Fulfilling unfinished desires. → Resolving family disputes. → Understanding a decent and dignified death.	→ Respect (beliefs, culture, and routines). → Privacy. → Individuality. → Autonomy and independence. → Clear communication. → Person-centered empathetic care. → Emotional support. → Religious/spiritual support. → Physical comfort. → Social interaction. → Safety and protection.	→ Privacy boundaries. → Social support. → Nature of care. → Burden to others. → Concerns regarding consequences. → Justice. → Economic/professional impact.

* The selection of these practices and guidelines was based on information obtained from original review articles and the authors' own observations. However, other forms and programs of intervention exist, including individual psychotherapy. Regardless of the intervention, the physician must be familiar with and adequately trained for their indication, monitoring, and/or implementation.

3.4.4. Compassion

Compassion in medicine can be defined as a response to human suffering, involving cognitive awareness, empathy, tolerance, non-judgment, and a spontaneous, wise motivation to act in the relief of suffering. Berlant et al. stated that compassion “is an ethical vocation; a part of being human among other humans in this world,” a concept inherent to medical ethics, the field of positive psychology, and the pursuit of integral health for individuals.^{3,50,51}

The character and strength of compassion are valued by all major religions and spiritual traditions, serving as one of the foundations of R/S and considered essential for life in society. Thus, compassion in relation to R/S manifests as follows:^{6,51,52}

In the Christian tradition: It is one of the fundamental principles of its practice, being transgenerational and inferable as cultural and civilizational. Compassion involves “sacrificial love that intentionally desires the highest good of the other” and not merely being compassionate toward oneself. It is also considered the source of mercy — a profound manifestation of compassion, empathy, and the desire to care for and alleviate the suffering of another person. Since antiquity, it has inspired spiritual care providers, and in contemporary times, healthcare chaplains and spiritual care professionals adopt compassion as an ethical and fundamental principle for service delivery.

In the Islamic tradition: It is rooted in the five pillars of Islam and is one of the fundamental duties, including: “Sadaqah” (voluntary charity), which is highly encouraged and encompasses all forms of kindness and help to others; and “Zakat” (obligatory charity), considered a practical expression and form of relief for the suffering of the needy through the redistribution of a specific portion of annual wealth (usually 2.5%). These acts of charity assist in invoking Allah’s blessings. According to Ibn ‘Umar, the Prophet Muhammad declared that “A Muslim is a brother to his fellow Muslim; he does not harm him nor let him down. He who meets the needs of his brother, Allah will meet his needs. Whoever relieves a Muslim of distress, Allah will relieve him of distress on the Day of Resurrection.”

In traditional African religion: Compassion is an ultimate manifestation of spiritual nature,

created by God and unconditional in character, involving a communal instinct in how healing, the wholeness of life, and the group’s culture are managed.

In Buddhism: Compassion involves affective, behavioral, and cognitive elements, opening oneself to the suffering of others with a commitment to alleviate it. It is a response founded on reason and wisdom, possessing an ethical framework that advocates the altruistic intention to support/liberate the other from suffering. In the Buddhist view, compassion has a strong tradition in healthcare, including the origin of the concept of self-compassion.

The assessment of the spiritual dimension involved in compassion can provide valuable information for the approach and an integral care plan for the patient. Appendix 1 presents a list of phrases exemplifying reports of disturbances associated with compassion, including aspects of self-compassion, as well as relevant terms for suspecting alterations of the construct across its various domains.

There is a wide variety of scales to evaluate compassion in all its domains, routinely used in research. However, they are less utilized in clinical practice due to a lack of translation/validation for most languages (including Brazilian Portuguese). The main scales used, divided by measurement categories/domains, are:^{6,20,50,53,54}

First-person, through self-report (the most common approach): evaluating the tendency and/or capacity to give compassion to others (the “compassion giver”): Feelings of Compassion for Person(s) Suffering; Santa Clara Brief Compassion Scale; Pommier Compassion Scale; Dispositional Positive Emotions Scale (DPES); Compassionate Love Scale; Self-reported Willingness to Help; Temperament and Character Inventory - compassion subscale; Fears of Compassion Scales; Interpersonal Reactivity Index.

Second-person, through evaluation by the potential recipient or target of compassion: Consultation and Relational Empathy Scale; Schwartz Center Compassionate Care Scale; Patient Ratings of Physician’s Compassion; Shaver Compassionate Affection Scale; Compassion Engagement and Action Scales.

Third-person: evaluates the intention to

take an objective measure or adopt a behavioral change, generally inferred from hypothetical/experimental situations and environments (e.g., the intention to offer a monetary donation or provide assistance to a stranger in danger): Amount of Money Willing to Donate; Offering Assistance to Someone in Need or Distress; Time Spent Helping Confederate; Carkhuff Empathy Scale; Reynolds Empathy Scale; Peer Nomination: “shows strong compassion for others”; Emotion Recognition Index.

A 2022 systematic review on the epidemiology of compassion demonstrated that most research utilized self-report measures and tended to refer to hypothetical individuals (61.0%) or hypothetical groups (50.0%) as potential recipients of compassion. It also found that 79.3% of the surveyed studies (out of a total of 106) considered compassion as a trait (a stable personality characteristic), 29.3% as a momentary state (a short-term pattern of thought or behavior), while 20.7% viewed it as a skill.⁵⁰

In the last two decades, research has been emerging regarding self-compassion, which is considered a positive psychological construct (cognitive-affective, multidimensional, and modifiable), arising from the extension of compassion toward the individual themselves (with oneself), often during periods of suffering. Its main components include: self-kindness, associated with relating to oneself with gentleness and understanding; mindfulness, aimed at maintaining a non-judgmental mental state regarding one’s own thoughts and feelings; and common humanity, involving the awareness that imperfections and difficulties are a universal human condition/experience. Self-compassion involves the desire to face and reduce pain and suffering, including self-healing with kindness and without self-judgment of one’s own deficiencies, weaknesses, failures, and suffering.^{55–57}

Self-compassion is associated with a wide range of desirable outcomes: psychological (e.g., resilience; well-being; reduction of suffering in chronic diseases); linked to health-promoting behaviors (e.g., increased physical activity); greater adherence to medical treatments; and reduction of CVD risk factors (e.g., lower insulin resistance; stress reduction;

better sleep quality).^{58–61}

It is important to understand that compassion plays a dual role in daily medical practice: for patients, it corresponds to a complementary therapy used in R/S interventions; for healthcare professionals, it is one of the fundamental/ethical principles inherent to daily medical practice. The physician routinely experiences the strength, virtues, and feelings of compassion in professional practice. However, they can only demonstrate compassion if they know the patient assents to and agrees with this action. To this end, it is necessary to properly investigate the issue through the approach to the patient’s R/S. The compassionate physician, respectful of the patient’s values, acts as a catalyst for reflection, an inspiration for the search/discovery of the meaning of life, strength for coping with anxieties and pain, and is capable of indicating interventions appropriate to the healing process. It also contributes to improving the physician-patient relationship, the quality of care, and patient satisfaction.^{62–64}

Compassion is generally linked to underlying spiritual values (religious and secular) and benefits not only the one who is suffering but also those who are willing to provide care. This effect on healthcare professionals is known as compassion satisfaction, corresponding to the feeling of gratitude that comes from providing care to alleviate another person’s suffering, which allows for one’s own spiritual growth. However, the opposite extreme also exists: compassion fatigue, conceptualized as emotional, physical, and psychological exhaustion due to exposure to chronic stress related to caring for/attempting to relieve the suffering of others. Nursing professionals are at a higher risk of presenting compassion fatigue, particularly when working in emergency/ICU services or frequently exposed to death.^{65–67}

In the context of Spiritual Care (SC), compassion represents an act of spirituality, generally provided in the form of social service and/or as an R/S intervention, involving the meeting of the spiritual and emotional needs of individuals. It includes presence, conversations, rituals, ceremonies, prayers, and the sharing of sacred texts and resources. However, this SC presents particularities associated with

individuals and the way each religion understands compassion.^{51,68} Compassion Focused Therapy is the most investigated/studied. Table 3 presents the main R/S intervention programs regarding compassion.⁶⁹

Relevant studies on compassion and compassion-based R/S interventions in patients with CVD:

- A randomized study with 40 patients (mean age 45.8 years; 62.5% men) with CVD to evaluate the efficacy of Acceptance and Commitment Therapy (ACT) demonstrated a significant increase in self-compassion (Eta squared: 0.65; $p < 0.01$), and the treatment's

efficacy was maintained during 2- and 6-month follow-ups.⁷¹

- A randomized study with 45 patients (age ranging from 30 to 50 years; 66.7% women) with CAD and Type D personality traits (existentialist, tendency to inhibit the expression of emotions or behavior to avoid negative reactions from others) compared the efficacy of Compassion Focused Therapy and Mindfulness-Based Stress Reduction. Both therapies significantly reduced stress compared to the control ($p < 0.0001$); however, Compassion Focused Therapy presented greater efficacy ($p = 0.02$).⁷²

Table 3 — Main intervention programs in religiousness and spirituality regarding compassion.^{69,70}

Intervention*	Foundations	Objectives	Program
Compassion Focused Therapy	It is based on evolutionary psychology, attachment theory, and applied psychology processes from neuro-science and social psychology. It focuses on two psychologies of compassion: the motivation to engage with suffering and the focus on action, acting specifically to alleviate and prevent suffering.	Developed to: promote compassion by increasing awareness of one's own emotions and the emotions of others; enhance emotional intelligence; manage destructive emotions (anger, fear, contempt, shame, guilt, and disgust); reduce negative emotions (rumination, depression, and anxiety); reduce stress and burnout; enhance mindfulness; enhance interpersonal communication; cultivate ethical values; and increase pro-social behavior.	Comprised of 8 to 12 weekly sessions with a duration of 2 hours each. It includes a series of exercises to develop the individual's compassionate-self ideal, involving exercises to access the soothing system, such as imagery (e.g., safe space imagery) and breathing (e.g., soothing rhythm breathing). There are no limitations or restrictions on the duration of the group therapy (Compassionate Mind Training).
Mindful Self-Compassion (MSC)	It is based on Tibetan Buddhist practices and mindfulness. Its three primary foundations are: mindfulness, allowing one to perceive suffering without judgment; clarity, seeking to respond to suffering with self-compassion (instead of self-criticism); and understanding, remembering that suffering affects all humans.	CM is a form of meditation whose primary objective is to offer specific wishes for others to be free from suffering (e.g., freedom from mental/physical suffering). LKM is a form of meditation that involves directing feelings of care toward oneself, loved ones, acquaintances, strangers, someone with whom interpersonal difficulties are experienced, and ultimately, toward all living beings. LKM and CM have shown promise in psychological issues involving interpersonal processes, depression, social anxiety, marital conflict, anger, and coping with the stresses of long-term care.	Resource-building course, consisting of 8 weeks, with sessions of 2 to 2.5 hours and an optional half-day meditation retreat. It contains core meditations (e.g., affectionate breathing), other meditations (e.g., compassionate body scan), and informal self-compassion practices (e.g., self-compassion break). The program includes psychoeducation on self-compassion and mindfulness exercises.
Compassion Cultivation Training (CCT)	Structured and encompassing Tibetan Buddhist contemplative practices and Western psychology, it involves didactic and experiential training in compassion practices: 1) calming the mind and developing mindfulness skills; 2) experiencing loving-kindness and compassion for a loved one; 3) practicing self-compassion; 4) compassion toward others through the acceptance of a shared common humanity; 5) compassion toward all beings; 6) the practice of "active compassion," in which one imagines taking away the pain/sadness of others and offering joy and happiness.	Its objectives are: to enhance the capacity for presence and mindfulness when caring for the critically ill; to cultivate balanced compassion and empathy toward patients and their families; to develop skills in the psychosocial, ethical, existential, and spiritual aspects of illness and death; to enhance communication and relationship skills during sensitive moments; and to recognize and manage grief.	Protocol of nine sessions, one per week, with a duration of 2 hours, including: 1) Pedagogical instruction with active group discussion. 2) Guided group meditation. 3) Interactive practical exercises. 4) Exercises designed to promote open-hearted feelings or connection with others. Participants receive weekly meditative exercises, including the performance of a daily complete meditation focused on compassion.

Continued...

Table 3 (Continued) — Main intervention programs in religiousness and spirituality regarding compassion.^{69,70}

Cognitively Based Compassion Training (CBCT)	It was designed to be secular in nature, and its theoretical foundations are based on the Tibetan Buddhist tradition of lojong (mind training). It also incorporates mindfulness strategies and cognitive restructuring.	Developed to: enhance mental and social capacities, including attention and socio-cognitive skills; seek healthy emotional regulation, self-care, compassion, empathy, and pro-social motivation (Affect module); reduce stress and increase life satisfaction and the promotion of mental health in general.	Structured training for 6 weeks with two 50-minute classes per week, including 8 stages: 1) developing attention and stability of the mind; 2) cultivating perception regarding the nature of mental experience; 3) cultivating self-compassion; 4) developing equanimity; 5) developing appreciation and gratitude for others; 6) developing affection and empathy; 7) realizing aspirational desire and compassion; 8) perceiving active compassion for others. Participants receive weekly home exercises involving the practice of a meditative technique.
Cultivating Emotional Balance (CEB)	It is a secular program that aims to build emotional balance based on Western scientific foundations regarding emotions and traditional Eastern attentional focus (i.e., Shamatha) and contemplative practices (i.e., Four Immeasurables). It seeks to create pathways to compassion by training and teaching participants to recognize the suffering of others and themselves, and to tolerate distress more effectively through learning new ways to manage emotions.	Developed for: promoting compassion by increasing awareness of one's own emotions and the emotions of others; enhancing emotional intelligence; managing destructive emotions (anger, fear, contempt, shame, guilt, and disgust); reducing negative emotions (rumination, depression, and anxiety); reducing stress and burnout; enhancing mindfulness; improving interpersonal communication; cultivating ethical values; and increasing pro-social behavior.	A program consisting of eight sessions (42 hours), involving a series of contemplative practices (including mindfulness, the promotion of empathy and compassion, and psychoeducation regarding emotions). The CEB is notably distinct from other compassion-based interventions due to the program's emphasis on understanding emotions and the ability to recognize the emotions of others.
Meditations (Compassion and Loving-Kindness Meditations)	The meditations are typically of two types: Compassion Meditation (CM) and Loving-Kindness Meditation (LKM). CM is a Buddhist practice aimed at cultivating feelings of empathy, care, and a desire to alleviate suffering in oneself and others. LKM (Metta Bhavana) is a Buddhist practice focused on cultivating feelings of warmth, kindness, and compassion for oneself and others. Most studies on compassion-based interventions have utilized CM and LKM simultaneously.	CM is a form of meditation whose primary objective is to offer specific wishes for others to be free from suffering (e.g., to be liberated from mental/physical suffering). LKM is a form of meditation that involves directing feelings of care toward oneself, loved ones, acquaintances, strangers, someone with whom one experiences interpersonal difficulties, and ultimately, toward all living beings. LKM and CM have shown promise in psychological problems involving interpersonal processes, depression, social anxiety, marital conflict, anger, and coping with the stresses of long-term caregiving.	Both CM and LKM involve multiple sessions over 4 to 8 weeks, with a duration of 10 to 30 minutes per session.
Being with Dying Programme (BWD)	The BWD program is a compassionate end-of-life care program where professionals are trained to improve their interactions with patients who have serious illnesses or are in palliative care. It integrates contemplative practices and psychological principles, mindfulness-based interventions, and the psychology of palliative care.	Its objectives are: to enhance the capacity for presence and mindfulness when caring for the critically ill; to cultivate balanced compassion and empathy toward patients and their families; to develop skills in the psychosocial, ethical, existential, and spiritual aspects of illness and death; to improve communication and relationship skills during sensitive moments; and to recognize and manage bereavement.	The BWD is an 8-day training program (intervention duration of 54 hours). Participants receive in-person instruction on key concepts related to end-of-life care, including ethical, spiritual, psychological, and social aspects. It also involves various meditation practices, often rooted in Buddhist traditions, aimed at cultivating presence, mindfulness, and emotional stability. It includes case studies and journaling of experiences.
The ReSource Training Protocol	It integrates a wide range of mental exercises inspired by Eastern and Western contemplative traditions and modern psychological and neuroscientific research. The protocol is grounded in three main components: presence, which is focused on attention and mindfulness; affective, which is focused on compassion and pro-social motivation; and perspective, which is focused on metacognition and cognitive perspective-taking.	Developed to: enhance mental and social capacities, including attention and socio-cognitive skills; promote healthy emotional regulation, self-care, compassion, empathy, and pro-social motivation (Affect module); reduce stress and increase life satisfaction and general mental health promotion.	The program is secular and does not require any specific religious or spiritual belief. The protocol necessitates a significant time commitment with 39 weeks (11 months) of training, including: weekly retreats; support from an internet-based platform; and a smartphone application guiding regular practice. The socio-affective and socio-cognitive modules incorporate partner-based practices (termed contemplative dyads).

** A seleção destas intervenções foi baseada em informações obtidas em revisão sistemática, metanálise e da própria observação dos autores do livro. Entretanto, existem outras formas/programas de intervenções, incluindo a psicoterapia individual. Independente da intervenção, o médico deverá estar familiarizado e adequadamente capacitado para as indicações, acompanhamento e/ou realização delas.*

3.4.5. Gratitude

The word gratitude originates from the Latin *gratia*, meaning grace. In medicine, it can be defined as a psychological/mental orientation, a positive personality trait associated with the appreciation of what is useful and meaningful to oneself and of experienced life circumstances, and a positive affective state when individuals receive help. Gratitude provides patients with the disposition and effective strength to cope with stress and illness, fostering physical, psychological, and subjective well-being. Furthermore, it can inspire healthcare professionals to shift their own perspectives, increasing their capacity for appreciation and their willingness to assist patients.^{3,73}

Gratitude has theological origins, and most religions emphasize orientation toward its development and practice. It is associated with an attitude of valuing life as a divine gift, as well as a moral effect that arises, inspires, and motivates care for the well-being of others. Some studies demonstrate that higher levels of gratitude are associated with greater spirituality and positive effects on the physical and mental health of individuals; they also observed that a higher frequency of prayer is associated with an increased level of gratitude.^{74,75}

Gratitude is generally divided into: the state level, associated with a positive emotion experienced when an individual receives external favors; and the trait/dispositional (intrinsic) level, which refers to a general orientation toward perceiving and appreciating the positive aspects of life. Individuals with a high gratitude trait tend to experience and express it more easily, and with greater frequency and intensity, showing reduced stress and depression.⁷⁵

Addressing gratitude during the spiritual anamnesis allows for the exploration of the patient's capacity to recognize and value the positive aspects of life, their emotional state, their behavior regarding blessings received, and how this construct is incorporated into their belief structure and spiritual practices. Appendix 1 provides a list of terms/phrases related to possible alterations in the level of gratitude.^{3,6,18–25} Scales have been developed and validated to measure the level of gratitude, aiding in diagnosis and prognosis

through questionnaires validated for various ethnicities and languages, the three primary ones being:^{76,77}

Gratitude Questionnaire-Six-Item Form (GQ-6): a self-administered six-item scale designed to measure gratitude as a single factor, based on the frequency, intensity, and density of grateful affect. The internal consistency of the GQ-6 in heart failure (HF) patients is high (Cronbach's alpha: 0.92).⁷⁴

Appreciation Scale: composed of eight subscales evaluating aspects of thankfulness: gratitude; "having" focus; awe; ritual; present moment; self/social comparison of thankfulness; loss/adversity; and interpersonal gratitude.

Gratitude Resentment and Appreciation Test (GRAT): a self-report questionnaire originally composed of 53 questions. The current revised and shortened version (comprising 16 items) has become the most widely used scale to measure dispositional gratitude.

Interventions to recognize, stimulate, and develop gratitude have been designed and tested, including their impact and outcomes, through research/randomized clinical trials and meta-analyses. These care practices were associated with greater quality of life, well-being, health, aging, positive feelings, and social behavior.⁷⁶ Clinical interventions can be classified into four categories (see Table 4): daily list of things for which to be grateful; grateful contemplation; behavioral expressions of gratitude; and spiritual/transcendent processes.

There are patients who require more elaborate types of interventions, particularly in cases of psychiatric, severe, and/or terminal illnesses. In these cases, they are typically conducted by qualified professionals (e.g., psychiatrists, chaplains, etc.). Chaplains and religious leaders can encourage gratitude practices to strengthen faith, find comfort, and promote hope and well-being. Psychiatrists can identify and intervene in negative thought patterns, cognitive distortions, and, primarily, in more severe depressive symptoms.^{3,76,78–81}

Relevant publications regarding the particularities of CVD patients concerning gratitude and R/S interventions include:

- A systematic review identifying 19 randomized clinical trials (2005 to 2023; 2,951 participants;

ages 19 to 71) on the potential clinical effects of gratitude interventions in CVD patients observed that gratitude promoted mental health, adherence to healthy behaviors, improvement in treatment outcomes, and a positive impact on CVD risk biomarkers – especially asymptomatic HF, cardiovascular function, and autonomic nervous system activity.⁸²

A cohort study conducted with 186 patients (mean age 66.5±10 years; 95.3% men) with asymptomatic HF observed that gratitude was

associated with better sleep quality ($r=-0.25$; $p<0.01$), less depressed mood ($r=-0.41$; $p<0.01$), less fatigue ($r=-0.46$; $p<0.01$), better self-efficacy in maintaining cardiac function ($r=0.42$; $p<0.01$), and lower levels of inflammatory biomarkers ($r=-0.17$; $p<0.05$). Gratitude fully mediated the relationship between spiritual well-being and sleep quality ($z=-2.35$; $SE=0.03$; $p=0.02$) and between spiritual well-being and depressed mood ($z=-4.00$; $SE=0.075$; $p<0.001$).⁷⁴

Table 4 — Main religiosity and spirituality interventions regarding gratitude.^{3,76,78–80}

Category	Intervention*	Observations
Gratitude lists	- This is the most “classic” gratitude intervention, involving the regular creation of written lists of various things for which one is grateful. A practical example is maintaining a diary in which one records three things for which they are grateful every night before sleep. - An easy technique for clinical settings, with completion occurring on average within 14 days. However, the majority of participants choose to continue the intervention even after the period has concluded. - A digital version also exists (e.g., recording notes on a mobile phone).	- Participants frequently report that the technique is pleasant and self-reinforcing. - Studies have demonstrated a reduction in body dissatisfaction and excessive worry/stress levels. - The gratitude journal technique proved to be as effective as clinical psychology techniques, albeit with a higher completion rate. - Effects generally persist for up to 6 months.
Grateful contemplation	- Participants are instructed to contemplate and/or write about things for which they are or could be grateful, in a more global manner. - It is less specific than gratitude lists; however, it is a brief intervention, generally lasting only five minutes.	- Studies demonstrate a reduction in negative affect, an increase in gratitude, and utility in immediately elevating mood.
Behavioral expressions of gratitude	- The participant must conduct a “gratitude visit” within seven days. Prior to this, a letter of thanks must be written to the benefactor and, during the in-person visit, the letter should be read to them. - Another recently developed method of expressing gratitude involves posting photographs on social media platforms accompanied by captions expressing gratitude.	- Studies involving young individuals with low baseline levels of positive affect in the gratitude condition demonstrated higher levels of gratitude and positive affect immediately post-intervention, as well as a higher level of positive affect at the 2-month follow-up.
Spiritual/transcendent process	- Aims to assist the patient in reinforcing gratitude through participation in religious rituals, spiritual practices (e.g., prayer, meditation, etc.), and/or guidance from a spiritual leader. - May include encouragement of reading, films, and art that explore the meaning and virtue of gratitude.	- The variables religiousness and/or spirituality typically correlate with a predisposition toward gratitude. - As a core component of most religions, gratitude is sustained by faith.

* The selection of the presented interventions was based on information obtained from systematic reviews, meta-analyses, and the authors’ own observations. However, other forms and programs of intervention exist, including individual psychotherapy. Regardless of the intervention, the physician must be familiar with and adequately trained for their indication, monitoring, and/or implementation.

3.4.6. Forgiveness

The act of forgiving is a virtue inherent to virtually all religions, involving excusing an offense or error, releasing resentment and anger, and allowing for the experience of peace. It may involve the following dimensions: “forgiveness of others,” in which an individual forgives another for a wrong or error committed; “self-forgiveness,” involving forgiving oneself by releasing guilt and the negative affect associated with one’s own past errors or personal failures; and “divine forgiveness” (remission of sins) through repentance and sacrifice, associated with the hope that the error/failure has been forgiven by God.^{83–85}

Forgiveness in medicine is a core, positive, psychological, and moral construct. It can be defined as a free, voluntary, intentional, and personal choice regarding the relinquishment of revenge and/or resentment toward the perpetrator of harm (physical, mental, or material), associated with an effort to respond to the offender with generosity, compassion, and benevolence. It is important to emphasize that forgiveness does not involve encouragement to ignore or minimize any personal feelings, emotions, thoughts, or behaviors associated with an offense, nor does it involve ignoring or minimizing the severity of the act or failing to hold an offender accountable.^{21,86}

Distinct from the religious field, forgiveness in R/S — particularly in psychiatry — is a complex affective, cognitive, and behavioral phenomenon that maintains a triad of dimensions but excludes “divine forgiveness”: “forgiving others,” which is enabled when the offender apologizes or demonstrates repentance (interpersonal forgiveness); “obtaining forgiveness from others”; and “self-forgiveness.”^{86–88}

Self-forgiveness is a relatively recent psychological construct that has also been addressed within the broader framework of self-compassion. It is a strategy for coping with specific events perceived as offensive (to oneself or others) and can be unconditional, involving the voluntary release of self-resentment regardless of the essence of the transgression. Self-forgiveness improves psychological health, life satisfaction, self-esteem, emotional stability, and perceived quality of life in patients with chronic/severe

illnesses, and it facilitates the recovery process from alcohol abuse.^{89–91}

It is important to remain attentive to the possibility of pseudo-self-forgiveness, a situation in which the patient forgives themselves but, due to self-esteem and/or an attempt to avoid negative emotions, fails to recognize or assume responsibility for the errors committed and therefore does not process the potential feeling of guilt. Pseudo-self-forgiveness is associated with a lower degree of repentance, fewer relationship-repair behaviors, and reduced self-confidence for future coping. Individuals who experience difficulty with self-forgiveness generally internalize their negative emotions, while those who have difficulty “forgiving others” externalize their negative affect. In both cases, the lack of intention to reconcile is evident.^{87,88}

During the spiritual anamnesis, the physician may identify patient statements or complaints suggesting difficulties or suffering regarding forgiveness (see examples in Appendix 1).^{3,6,18–25} At this moment, it is important to understand the dimension involved (“forgiving others,” “obtaining from others,” “self-forgiving,” or “divine”), how the patient views and copes with the issue, and whether they are willing to use interventions that facilitate achieving it. The probability of shifting from a behavior of rancor (“unforgiveness”) to forgiveness is increased by providing patients with motivational information: Why should a person forgive? What are the advantages/benefits of forgiveness? Will I learn something in the process of achieving forgiveness?²²

When considering motivations for forgiveness, individuals tend to focus on what they might restore or gain as a consequence. However, the reasons can be larger and deeper, as forgiveness is fundamental to inner peace; strengthens relationships and family ties; is voluntary and conditional; is a gesture of love/concern for the other in the human community; can fulfill a moral and/or religious duty; can bring about the well-being of others; and stimulates self-awareness and self-control.^{87,92}

Studies link forgiveness (forgiving others and obtaining forgiveness) to several benefits: greater individual well-being with improved self-confidence; improved mental health, including reductions in stress, anger, anxiety, and depression; positive relational health, including

better social support and marital quality; and improvements in physical health, including reductions in blood pressure, fatigue, and insomnia, control of cardiovascular risk factors, treatment adherence, and longevity.^{93–95} Figure 2 presents the types of forgiveness, the factors that may interfere with its occurrence and effectiveness, as well as its primary benefits.^{3,18–23}

It is important to explain to the patient what forgiveness is — that forgiving is an individual choice, requires work (intellectual, emotional, and spiritual), takes time, and may necessitate specific interventions, but generally leads to positive life consequences. There are scales and forms of quantifying forgiveness (used primarily in research) that can be grouped into six categories

based on their content/purpose:^{87,88,96–98}

Granting forgiveness to an offender for a transgression: Enright Forgiveness Inventory; Transgression-Related Inventory of Motivations; Rye Forgiveness Scale; Decisional Forgiveness Scale (DFS); Emotional Forgiveness Scale (EFS); Marital Offense-Specific Forgiveness Scale (MOFS); Decisional Forgiveness Scale; Bolton Forgiveness Scale (BFS).

Disposition to be forgiven (transgression events, offense, and relationships): Trait Forgivingness Scale; Resource Distribution Measure of State Forgiveness.

Self-forgiveness measures (state and trait): State Self-Forgiveness Scale (SSFS); Heartland Forgiveness Scale (HFS); Self-Forgiveness Dual-Process Scale; Forgiveness of Self Subscale (FOSS).

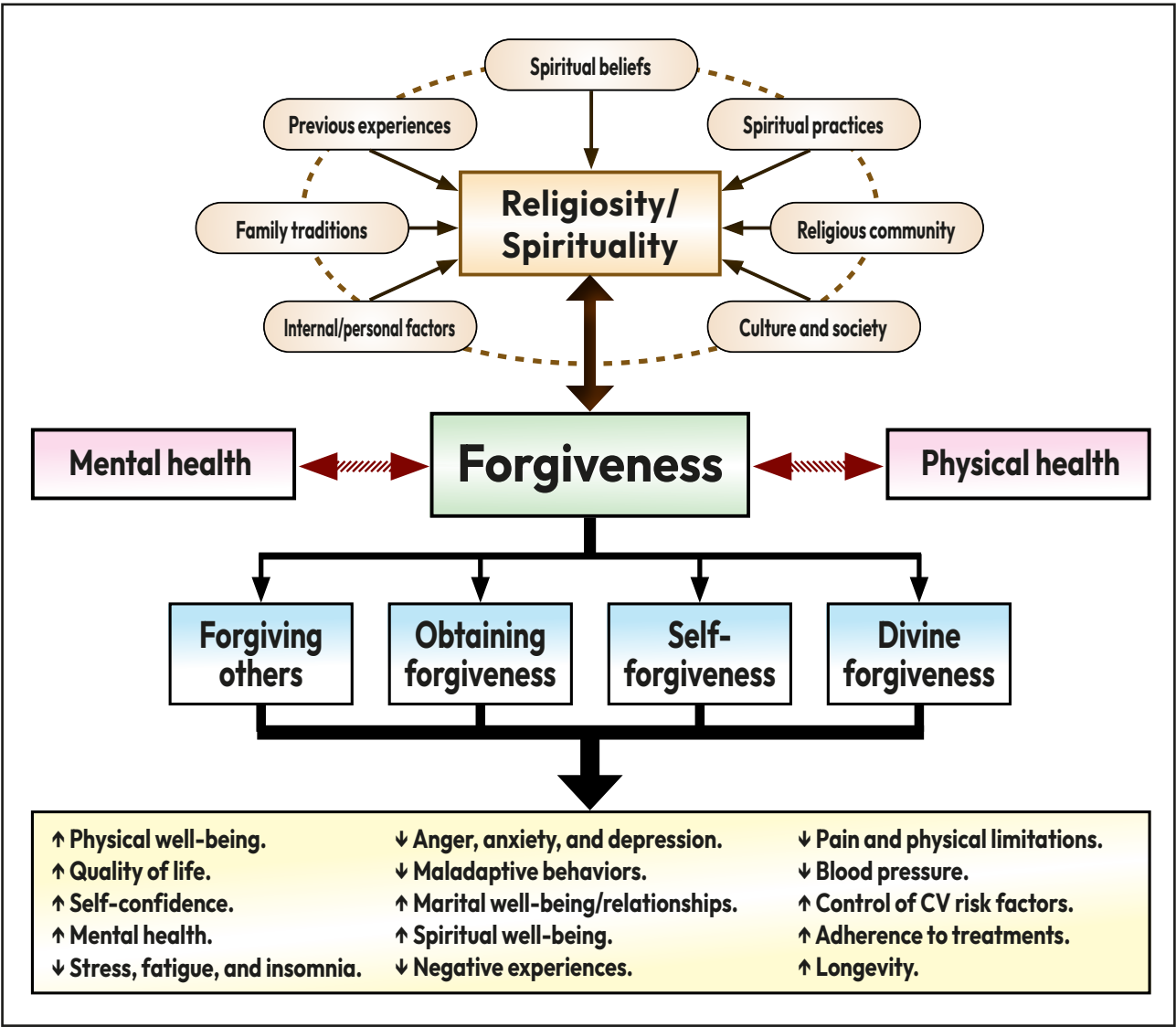


Figure 2 — Types and factors that may interfere and benefits of forgiveness.^{3,18–23} CV: cardiovascular; ↑: increases/improves; ↓: decreases/reduces.

Assessment of dispositional forgiveness for self, others, and situations: HFS; Multidimensional Forgiveness Inventory; Divine Forgiveness Scale (DFS).

Biochemical examinations generally influenced by forgiveness: cortisol; oxytocin; catecholamines.

Physiological examinations/measures generally influenced by forgiveness: heart rate; blood pressure; heart rate variability; facial electromyographic measures; functional magnetic resonance imaging.

It is necessary to individualize the forgiveness intervention plan to the needs of each patient, provided they agree and manifest a voluntary desire to undergo the process. Patients with complex/severe conditions, associated mental disorders, or in high-risk situations

(e.g., hospitalized for substance abuse, end-of-life) generally require a multiprofessional approach, including chaplaincy and psychiatry. In psychotherapeutic evaluations, psychiatrists can recognize and deepen the approach to traumas, defense mechanisms, and internal conflicts responsible for the development and maintenance of psychic suffering related to unforgiveness.^{87,88,99,100}

Some of the primary R/S interventions to stimulate forgiveness, their objectives, and how they are conducted (program and components) are found in Table 5. It is worth noting that even after a successful intervention to stimulate forgiveness, serial re-evaluation of the patient's R/S is recommended to confirm the effectiveness of the intervention and/or identify new complaints.^{87,88,101-105}

Table 5 — Main interventions to facilitate forgiveness.^{87,88,101-105}

Intervention*	Objective	Program/Components
Enright's Process Model of Forgiveness	To assist the patient in performing the act of forgiveness, achieving psychological well-being, particularly in individuals who have experienced more severe transgressions. It also allows for: - Increasing: attachment security, hope, self-esteem, environmental mastery, emotional intelligence, well-being, quality of life, and physical health. - Decreasing: anger, hostile attributions, aggression, depression, anxiety, sadness, post-traumatic stress symptoms, vulnerability to substance use, and delinquency.	The intervention comprises four phases (including subunits): 1) Discovery: The therapist encourages the patient to discover the pain caused by the offense/transgression and their reaction to it. 2) Decision: The therapist assists the patient in working toward a cognitive decision to forgive. In this phase, the patient must understand what forgiveness is and what it is not (e.g., forgiveness is not synonymous with reconciliation or forgetting). Commitment to working toward forgiveness is encouraged. 3) Work: Involves working to change internal cognitions and emotions in order to facilitate and actualize the commitment to forgive. At this point, the patient may be ready to grant forgiveness to the transgressor, either in the form of private feelings (of altruistic concern) or interpersonal expressions (of benevolence). 4) Deepening: The patient is encouraged to reflect on the true meaning of the transgression for their life and the process of actualizing forgiveness.
Worthington's REACH Forgiveness Model	Relational spirituality and forgiveness model. It seeks to assist individuals in making the decision to forgive and, subsequently, replacing negative emotions with more positive and "forgiving" ones. This intervention is frequently termed "decision-based." Randomized clinical trials have demonstrated greater effectiveness of this intervention in individuals with less severe issues: maladaptive perfectionism, self-forgiveness (university students, couples, parents, and religious individuals), and the pursuit of well-being.	Five-stage intervention (represented by the acronym REACH), typically with a duration of one week per stage: - 1st stage (R - Recall the Hurt): Participants recall the transgression while minimizing blame and victim status. - 2nd stage (E - Empathize with the One Who Hurt You): Involves cultivating empathy and other positive emotions (e.g., compassion, sympathy for the offender). - 3rd stage (A - Altruistic Gift of Forgiveness): A moment in which participants are encouraged to offer an altruistic gift of forgiveness, releasing the offender from the justice that is owed. - 4th stage (C - Commit to the Forgiveness You Experienced): The participant is then encouraged to make a tangible commitment to forgiveness, in the form of a letter or another symbolic gesture. - 5th stage (H - Hold onto Forgiveness When You Doubt): Finally, participants are encouraged to maintain forgiveness in the face of doubts, rumination, and other obstacles.
Prayer/brief prayer in promoting forgiveness	Spiritual approach to facilitate forgiveness among (primarily) religious individuals. Focus on dispositional forgiveness and increased empathy toward the offender. Recent studies demonstrate that prayer is an independent predictor of forgiveness above and beyond other religious and spiritual variables.	Several possibilities are described in the literature: - Combination of meditative and colloquial prayer in a single measure. - Prayer addressing four themes: receiving guidance; asking God for help to forgive; revealing pain to God; letting go of the burden. - Brief prayer for a romantic partner (couple) for 3 minutes.

Continued...

Table 5 (Continued) — Main interventions to facilitate forgiveness.^{87,88,101–105}

Psychodrama-oriented forgiveness flexibility group program	Self-forgiveness, forgiveness of others, and situational forgiveness. It is based on the acquisition of “forgiveness flexibility” through psychodrama by recreating painful experiences (on a stage, within a safe environment). It stimulates cognitive reprocessing through reenactment, overcoming fixations through role repertoire, flexibility, mirroring, empathy, surplus reality, and support (ceremonial and interpersonal).	Supervised group study for 16 weeks with one 3-hour session per week. The sessions are protagonist-centered or participant-centered, depending on the group’s purpose and the members’ needs. They are conducted by a group leader (psychodramatist) and a co-leader (creative drama leader) and composed of: - Initial meeting to collect expectations and acknowledge feelings within the program context, followed by warm-up and trust exercises to increase group cohesion and bonding. - Subsequent sessions based on the tree-of-life technique, emphasizing the skills and values of group members to strengthen their egos before focusing on painful life events. Group work on issues concerning the feeling of love, the need to be forgiven, the process of forgiveness, and individual observation of self-forgiveness, empathy, and forgiveness skills. - Final session, in which participants are invited to choose nicknames for themselves.
Forgiveness meditation treatment built on Vimalaramsi	Self-forgiveness, forgiveness of others, situational forgiveness. Meditation-based forgiveness intervention.	The intervention was conducted in groups, comprising four sessions over two weeks, with a duration of 90–150 minutes per session. Forgiveness meditation was guided by a qualified therapist: - Session 1: Explanation of the context of forgiveness meditation, its benefits, and issues regarding relaxation and negative emotions. Subsequently, practical performance of forgiveness meditation. - Sessions 2 to 4: In-person practice of forgiveness meditation. Evaluation of home-based forgiveness meditation self-practice (instructions provided on an audio CD) and the self-monitoring diary.
Self-forgiveness workbook	They are also known as “self-forgiveness workbooks.” They aim to increase self-forgiveness and reduce self-condemnation (primarily among perpetrators of interpersonal offenses).	6-step intervention via a self-directed workbook (approximate duration of 6 hours) consisting of: - Three intervention steps aimed at the reaffirmation of values (step 1: receiving divine forgiveness; step 2: repairing social bonds; step 6: resolving to live virtuously). - Three steps aimed at the restoration of positive self-esteem (step 3: rethinking rumination; step 4: achieving emotional self-forgiveness; and step 5: rebuilding self-acceptance).

* The selection of these interventions was based on information obtained from systematic reviews, meta-analyses, and the authors’ own clinical observations. However, other forms and programs of intervention exist, including individual psychotherapy. Regardless of the intervention chosen, the physician must be familiar with and adequately trained in the indications, monitoring, and/or implementation thereof.

Studies addressing forgiveness in relation to R/S in patients with CVD:

- A cohort study with 111 participants (66.7±11.0 years; 60.4% men) with severe HF (classes III and IV; ineligible for cardiac transplantation; mean time since diagnosis: 6.5±5.6 years) evaluated at baseline and after 3 months, demonstrated that only forgiveness was favorably related to mental well-being (lower levels of depression), including in longitudinal multivariate analyses (\$B=-1.871\$; \$SEB=0.780\$; \$b=-0.258\$, \$p<0.05\$).¹⁰⁶ A study of 85 patients (mean age 57.6 years; 65.9% men) hospitalized with coronary syndrome (chronic or acute) or acute myocardial infarction (AMI) demonstrated that higher levels of forgiveness were associated with lower levels of anxiety (\$r=0.33\$; \$p<0.005\$), depression (\$r=0.36\$; \$p<0.005\$), and perceived stress (\$r=0.39\$; \$p<0.0001\$), as well as lower total cholesterol/HDL and LDL/HDL ratios (both with \$p<0.05\$).¹⁰⁷

3.4.7. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the links and/or QR code presented below:



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Religiosity and Spirituality in Medicine:
meet the leading international organizations.

3.4.8. Appendix

The table below presents a set of words, expressions, and phrases related to disturbances/alterations in the levels of hope, dignity, compassion, gratitude, and forgiveness. These terms may undergo semantic variations according to regional factors (e.g., location, beliefs, culture), as well as social linguistic

variations (e.g., age, educational level, ethnicity, socioeconomic factors). When used by the patient, they may indicate the presence of psychological distress and/or spiritual conflict; however, they do not necessarily indicate a specific mental disorder. Therefore, they must be properly evaluated and contextualized within the current clinical presentation and in terms of their relationship with the patient's religiosity and spirituality.

Appendix 1 — Words, expressions, and example sentences referring to alterations/disturbances associated with hope, dignity, compassion, gratitude, and forgiveness.^{3,6,18–25}

Construct	Words/Expressions	Examples of Disorder / Alteration Sentences*
Hope	Pessimistic; I only see the negative side; nothing will improve; discouraged; I feel apathetic; lacking motivation; I have no strength to try; I feel abandoned; alone; no one cares (not even God); I cannot fight anymore; everything is an illusion; I feel an emptiness; I am trapped in my pain; has God abandoned me; my faith is weak.	• "I cannot find a way to improve and feel normal again." • "I feel that my prayers are not heard. I need help from God." • "Perhaps this is my cross to bear. There is no relief." • "Despite everything that has occurred, I have little hope of having any chance." • "I am waiting for something to give me hope that things will improve." • "I have bad moments that discourage me." • "I am running out of strength; I wish life would improve." • "I wish to find comfort and hope to face this situation." • "There is a purpose, a greater reason for all of this; I need help." • "I believe this illness may be a punishment from God for my mistakes." • "I should be strong, but I am failing... I must be a horrible person in the eyes of God."
Hopelessness**	Hopeless; without hope; I have lost hope; I see no future; there is no way; there is no solution; it is irreversible; nothing can be done; useless; there is no point in trying; it makes no difference; why should I make an effort?; I believe in nothing; I have been forgotten by everyone; forgotten by God; I want it all to end; I wish to disappear; I can no longer bear to exist; life has no meaning; nothing matters; there is no purpose; death would be a relief; I wish to die; I see no other way out; powerless; incapable of changing; I am condemned; there is no salvation for me; the worst will happen; I feel nothing; I have lost the capacity for hope.	• "I see no point in continuing to try. Nothing improves." • "I feel like I am trapped in this situation. There is no way out; it is better to die." • "Why undergo therapy or take medication? Nothing works; my life is worthless." • "I give up. I no longer have the strength to fight this." • "I see no future for myself; I cannot imagine anything good." • "I cannot find meaning in anything. What is all this for?" • "I feel that God has abandoned me. There is no light at the end of the tunnel." • "My life and faith are shaken. I no longer know what to believe." • "Why continue fighting? I feel such a great emptiness that not even my faith fills it anymore." • "I no longer see purpose in anything — neither in life nor in my faith." • "Life has no meaning. It feels as though everything is over."
Dignity	Useless; worthless; good for nothing; insignificant; I do not respect myself; I treat myself poorly; I hate being this way; I am unworthy; I deserve nothing good; I am impure; inferior; less than others; a failure; I have failed; I cannot do anything right; I am merely a burden to others; I only hinder; I am ashamed of who I am (of what I have done; of what I feel); they despise me; I am inferior to them.	• "I feel that I have lost my value as a person since I became ill." • "I do not deserve to be happy; I am a bad/impure/sinful person." • "I am ashamed of myself and of what I have become." • "I am constantly failing; I am not worthy of God's love or forgiveness." • "I feel like a burden to others; I am useless." • "I am impure, contaminated by my thoughts/actions." • "I do not have the right to ask for help; I deserve to suffer." • "I am a failure; everyone despises me." • "I feel that I am useless; no one values me in my faith community." • "People look at me with contempt, as if I were inferior to them." • "I am good for nothing; I only hinder my family's life."
Compassion	- Regarding self-compassion: excessively self-critical; hard on myself; I judge myself severely; I feel contemptible; I deserve to suffer; I need to be punished; I do not deserve good things; I must be perfect; guilt prevents me from moving forward; I do not deserve forgiveness; I am deeply ashamed of myself; I cannot accept myself; poor me (with victimhood; lack of self-kindness); I cannot fail.	- Regarding self-compassion: • "I judge myself harshly; I do not deserve forgiveness." • "I ruined everything again. I am deeply ashamed of myself." • "I am useless and deserve to suffer the consequences." • "I cannot allow myself to make mistakes. I feel despicable." • "I have to be perfect all the time; otherwise, I am worth nothing." • "I cannot forgive myself for my mistakes; they define me." • "There is nothing good in me, so why be kind?" • "I do not deserve to receive care; I am a burden to everyone." • "I feel so useless that I do not even try to help myself." • "I do not like myself, so why would they treat me well?"

* The order in which the sentences are presented does not represent a gradation and/or level of alteration of their construct.

** Hopelessness is considered a core symptom of a depressive condition, which is harmful due to its association with severe maladaptive behaviors and its close relationship with suicidal intentions, requiring, in some cases, psychiatric intervention.

Continued...

Compassion (Continued)	- Regarding compassion for others: I do not care about others; every man for himself; I feel no pity; they do not deserve consideration; I cannot feel empathy; I want them to suffer; they deserve to pay for what they have done.	- Regarding compassion for others: • "People reap what they sow; I feel no pity." • "People who do that are despicable and deserve everything bad." • "I no longer care about others. Everyone should look after themselves." • "Certain people do not deserve compassion for who they are." • "I cannot feel empathy for that kind of person." • "God punishes sinners; why should I have compassion?" • "They are suffering because they turned away from God; it is just." • "My religion teaches that some do not deserve mercy."
Gratitude	Dissatisfied; I am never content; always wanting more; nothing is sufficient; everything goes wrong; it is my obligation; I do not care; I do not remember anything good; only bad things happen; why them and not me?; frustrated; disappointed; things never go as I want; why always me?; everyone is cruel to me; I am unlucky.	• "I am very dissatisfied. Nothing good happens to me." • "Why are others so lucky while I have nothing?" • "Everything goes wrong for me. It is unfair that they have that." • "Everyone is at the party. Why them and not me?" • "I cannot enjoy anything because I know it will go wrong." • "Why does this always happen to me? I am unlucky." • "I will not give thanks for something I should already have." • "Why give thanks for something that will soon end?" • "I cannot see anything to feel grateful for in life." • "I feel no joy or satisfaction with what I have." • "I can only think about what I have lost, not what I still have." • "The little I have does not compensate for the suffering." • "I cannot see the blessings, only the problems." • "Gratitude is merely a form of manipulation." • "They did no more than their duty, so I am not grateful." • "I do not feel that God blesses me, so why be grateful?" • "I feel that I have been abandoned; there is nothing for which to thank God." • "Faith has brought me nothing good; I feel no gratitude."
Forgiveness	- Difficulty in forgiving others: I am resentful; I hold a grudge; I cannot forget; I feel hatred; aversion; I want revenge; retaliation; I will never trust again; unforgivable betrayal; there is no excuse; they cannot go unpunished; I cannot get over this. - Difficulty in self-forgiveness: guilty; I only feel guilt; the guilt paralyzes me; remorse; ashamed; deep shame; I deserve to suffer; punishment (of oneself); paying for mistakes; anger at myself; I cannot forgive myself; it is impossible to forgive what I did; I do not deserve forgiveness; what I did is unforgivable; I am useless after what I did. - Difficulty in receiving forgiveness from others: guilt haunts me; I want to be forgiven; I seek forgiveness; I need to reconcile; making peace; restoring the relationship; healing the wounds; finding inner peace. - Difficulty or doubt regarding divine forgiveness: my soul is unclean; unworthy of divine forgiveness; receiving divine mercy; being redeemed.	- Difficulty in forgiving others: • "I will never forget what they did to me; the anger still consumes me." • "I cannot let the hurt go; it is always present." • "What they did is unforgivable; they do not deserve my forgiveness." • "I feel a deep hatred for this person; I cannot change." • "Justice must be served; forgiveness is not an option." • "How can I trust again after being betrayed like this?" • "Forgiveness does not erase what happened; the scars remain." • "I cannot look at this person without feeling revulsion because of what they did." • "Even if I say I forgive, deep down I cannot." - Difficulty in self-forgiveness: • "I will never forgive myself for what I did; I carry this guilt every day." • "What I did was horrible; I deserve to suffer the consequences." • "Remorse corrodes me; there is no peace for me." • "I am a bad person because of my past." • "I do not deserve to be happy after what I did." • "I must pay for my mistakes; forgiveness is not for me." • "I feel so unclean that I cannot forgive myself." • "I committed an unforgivable sin in the eyes of God." • "I am condemned by my faith; there is no salvation for me." • "God can never forgive me for what I did." • "My soul is stained forever." - Difficulty in receiving forgiveness from others: • "I do not believe they have truly forgiven me; there must be an ulterior motive." • "Their forgiveness does not seem sincere." • "How can they forgive me after everything I have done?" • "I think they are being condescending, but deep down, they still blame me." • "I do not trust that this forgiveness is genuine." • "What I did was so serious that their forgiveness is not enough." • "I still need to pay for what I did, even if they forgive me." • "I cannot accept forgiveness; the guilt is too great." - Difficulty or doubt regarding divine forgiveness: • "My sins are so great that even the forgiveness of men does not matter before God." • "I am certain that God is punishing me for doing so many things wrong." • "I have the feeling that God is holding me accountable for all my vices." • "I abandoned my religion and I am being punished." • "I still need to seek God's forgiveness; my partner's is not enough." • "I feel that I need to suffer more before being forgiven by God." • "I pray, I ask for forgiveness, but I feel that my words do not reach God." • "What I did was so contrary to the teachings of my faith that I cannot imagine there is forgiveness for me." • "If God is just, how can He forgive me so easily after all the harm I have caused?" • "Human forgiveness does not absolve me of my guilt before God."

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Section 4:

Approach to Religiosity and Spirituality in Cardiovascular Diseases



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Chapter 4.1

Cardiovascular Health Prevention



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4.1.1. Cardiovascular Prevention

The majority of available data regarding the impacts of cardiovascular diseases (CVD) on the population originates from research conducted abroad. Recently, Oliveira et al. (2021), with the support of the Brazilian Society of Cardiology, published an updated and expanded version of the Cardiovascular Statistics – Brazil (CSB), which incorporated data from the Global Burden of Disease (GBD) study, considered the most comprehensive global observational epidemiological survey on the prevalence of CVD. The CSB presented information referring to the GBD and the Unified Health System (SUS) database, confirming that CVD is the leading cause of death in Brazil. Between 1990 and 2019, coronary artery disease (CAD) was the primary cause of death in the country, followed by stroke.¹

According to the CSB, between 1990 and 2019, the prevalence of CVD was estimated at 6.1% of the population and has been increasing since 1990 due to population growth and aging. A reduction in age-adjusted mortality rates was observed, although this was less significant in the North and Northeast regions. SUS data showed a significant number of

paid clinical and surgical cardiovascular procedures, especially for heart failure (HF), cerebrovascular diseases, and acute coronary syndrome. Hospitalizations for percutaneous coronary interventions increased significantly in recent decades, while surgical procedures remained stable.¹

In the international sphere, health promotion has been emphasized as a fundamental strategy for disease prevention. Some historical reference documents on health promotion highlight the importance of public policies that create favorable environments. This reinforces the need for actions that go beyond traditional prevention and seek to modify social and environmental determinants related to illness.²

Based on these concepts, it is accepted that CVD prevention is one of the most important pillars of public health, and R/S emerges as a potentially significant factor in the promotion of healthy habits, social support, resilience, emotional well-being, and the reduction of risk behaviors.³

The following mechanisms are highlighted as directly related to R/S and cardiovascular prevention:

Promotion of healthy habits: many religious traditions and spiritual practices encourage moderation, self-care, healthy eating, and

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abstinence from harmful substances, such as alcohol and drugs. These practices can reduce the risk of chronic diseases and improve overall health.⁴

Stress reduction: R/S offers coping mechanisms, such as prayer, meditation, rituals, and support communities, which can help reduce stress and promote mental health. The prevention of chronic stress can contribute to the reduction of CVD.⁵

Social support: faith-based organizations (FBOs) frequently provide an important social support network, which can reduce isolation and loneliness, serving as a protective factor against mental and physical illness.²

Resilience and purpose in life: R/S frequently provides a sense of purpose and meaning in life, which can increase resilience and the capacity to deal with adversity. People with a significant sense of purpose tend to have better overall health outcomes.⁶

In this chapter, possible R/S relationships associated with various health prevention strategies will be addressed. Three central aspects will be explored: the role of R/S in promoting healthy habits, FBOs as a support network, and challenges related to potential conflicts between religious beliefs and medical recommendations.

4.1.2. Role of Religiosity and Spirituality in Promoting Healthy Habits

R/S has proven useful in promoting lifestyle changes fundamental to CVD prevention. Recent studies demonstrate that religious/spiritual (R/S) practices frequently motivate individuals to adopt healthier behaviors, such as: regular physical exercise, a balanced diet, and abstinence from tobacco and alcohol.^{7,8}

R/S can create mechanisms for coping with stress, a known risk factor for CVD. Practices such as meditation, prayer, and mindfulness are associated with reduced cortisol levels and improved endothelial function, contributing to cardiovascular health.⁹ Additionally, R/S practices can provide a sense of purpose and meaning, helping individuals better manage daily stresses and maintain healthy habits in

the long term.¹⁰

4.1.3. Faith-Based Organizations as a Support Network

Faith-based organizations (FBOs) play a fundamental role in disseminating information on cardiovascular prevention and creating social support networks. These entities frequently organize health programs that encourage the adoption of healthy habits, such as group walks, nutrition lectures, and smoking cessation campaigns. For example, a study by Powell et al. highlighted the positive impact of health programs promoted by churches in the United States, with significant improvements in cardiovascular health indicators among participants.¹¹

Furthermore, FBOs offer an environment of emotional and social support, which can be crucial for adherence to lifestyle changes. The sense of belonging and mutual encouragement among community members can strengthen the motivation to maintain healthy habits, such as regular exercise and balanced nutrition.⁸ Programs such as “Developing Faith-Based Health Promotion Programs that Target Cardiovascular Disease and Cancer Risk Factors” are implemented in various parts of the world, demonstrating that the integration of spirituality and health can be an effective strategy for CVD prevention.¹²

4.1.4. Challenges of Cardiovascular Health Prevention and Religiosity and Spirituality

Despite the possible benefits, it is important to recognize how all R/S practices are compatible with medical recommendations, which can generate conflicts in the management of CVD. For example, some religious beliefs may discourage the use of medications or surgical interventions, preferring to rely exclusively on faith or R/S practices for treatment. Koenig et al. highlighted cases in which patients refused essential medical treatments due to religious convictions, which could lead to serious and even fatal complications.¹³

As seen in previous chapters, it is a challenge for physicians to address R/S issues, which can result in a gap in integral care. It is fundamental to contemplate the R/S beliefs of patients alongside scientific evidence, ensuring that therapeutic decisions are made collaboratively through respectful and informed dialogue between physicians and patients, integrating R/S into the treatment plan.¹³

The impacts of R/S on cardiovascular prevention (primary and secondary) and CVD must be analyzed in the light of evidence-based medicine (EBM). However, many studies conducted have not demonstrated robust scientific evidence due to, mostly, methodological issues (observational and retrospective studies). The most relevant publications from the EBM perspective on R/S in primary and secondary CVD prevention were selected, and the objective data from each study will be described without issuing value judgments (Table 1).¹⁴⁻²⁸

Mechanisms involved in R/S regarding cardiovascular prevention, according to the most relevant publications:

1) Stress reduction and emotional regulation:

- Spirituality is associated with lower levels of stress and anxiety, which can reduce cortisol levels and the activation of the sympathetic nervous system, both involved in the pathophysiology of arterial hypertension and coronary diseases.

- Studies indicate that spiritual practices, such as prayer and meditation, are associated with a reduction in blood pressure and an improvement in heart rate variability, indicating a regulation of the cardiac autonomic nervous system.²⁹

2) Influence on health behaviors:

- Research suggests that religious individuals are less likely to smoke, consume alcohol, or use illicit drugs, factors known to increase the risk of CVD.²⁶

- The meta-analysis by Li et al. demonstrated that regular participation in religious activities is associated with a 20% reduction in cardiovascular mortality.³⁰

3) Modulation of systemic inflammation:

- Studies indicate that individuals with greater

spiritual involvement present lower levels of inflammatory biomarkers (e.g., C-reactive protein and pro-inflammatory interleukins), factors directly associated with atherosclerosis.

- According to Koenig et al., the regulation of the hypothalamic-pituitary-adrenal (HPA) axis promoted by spiritual practices contributes to a more balanced stress response.³¹

4) Impact on treatment adherence and recovery:

- Spirituality is also associated with better therapeutic adherence, as individuals with religious beliefs frequently view the illness as a surmountable challenge, adopting a more positive stance toward treatment.^{26,32}

- Studies suggest that post-infarction patients who report a high level of spirituality present better recovery rates and lower recurrence of cardiovascular events.³³

However, prospective and more robust studies are necessary to validate the findings of observational and retrospective studies on cardiovascular health prevention.

4.1.5. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the links and/or QR codes presented below:



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Get to know and join the Department of Studies on Spirituality and Cardiovascular Medicine of the Brazilian Society of Cardiology (SBC).


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GEMCA Free Book Selection: expand your knowledge
of religiosity and spirituality with full-text books.
Made available for free by the publishers
themselves (in PDF format).

Table 1 — Relevant publications on religiosity and spirituality in the prevention (primary and secondary) of cardiovascular diseases.¹⁴⁻²⁸

Religiosity/spirituality and cardiovascular health: the American Heart Association Life's Simple 7 in african americans of the Jackson Heart Study. ¹⁴			
Article Type:	Cross-sectional study, using data from the Jackson Heart Study.	Methodology/ Participants:	2,967 (mean age 54.0±12.3 years; 65.7% women). It examined the relationships between religiosity (religious attendance, private prayer, religious coping) and spirituality (theistic, non-theistic, total) with individual components of the LS7 (e.g., physical activity, diet, smoking, blood pressure) and composite scores among African Americans.
Results:	Higher levels of R/S were associated with intermediate/ideal cardiovascular health across several LS7 indicators. Strengthening R/S in lifestyle interventions may decrease the overall risk of CVD among African Americans.		
Meditation and cardiovascular risk reduction: a scientific statement from the American Heart Association. ¹⁵			
Article Type:	Systematic review on the potential benefits of meditation on cardiovascular risk and publication of a scientific statement from the American Heart Association.	Methodology/ Participants:	Revisão de 2008 de mais de 400 ensaios clínicos sobre meditação e cuidados de saúde. Estudos sobre meditação e redução de risco cardiovascular foram pesquisados no PubMed usando termos como meditação, estresse, pressão arterial, hipertensão, tabagismo, uso de tabaco, resistência à insulina, síndrome metabólica, aterosclerose, função endotelial, isquemia miocárdica, prevenção primária e prevenção secundária. Buscas adicionais foram realizadas no Google e no Google Acadêmico.
Results:	Studies on meditation suggest a possible benefit regarding cardiovascular risk, although the overall quality and, in some cases, the quantity of study data are modest. The AHA classified the methodological quality of the clinical trials as weak, but noted that the quality of these trials has improved significantly over time.		
Role of yoga in cardiovascular diseases. ¹⁶			
Article Type:	Bibliographic review of PubMed and Google Scholar.	Methodology/ Participants:	80 review articles and research articles / Book chapters.
Results:	This review documented sufficient evidence that yoga demonstrates positive regulation of various risk factors associated with CVD.		
Effects of yoga on cardiovascular disease risk factors: a systematic review and meta-analysis. ¹⁷			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	The bibliographic search yielded 1,510 records; 4 additional records were retrieved from the reference lists of identified original articles; and 1 additional record was retrieved from the Journal of Physical Therapy and Yoga. After removing duplicates, 956 records were screened and 857 records were excluded for: not being RCTs; participants presenting ineligible conditions and/or yoga not being an intervention. Ultimately, 41 RCTs (N=3,168) were included.
Results:	Yoga demonstrates positive regulation of various risk factors associated with CVD (systolic and diastolic blood pressure, heart and respiratory rate, abdominal circumference, total cholesterol, HDL, VLDL, triglycerides, glycated hemoglobin, and insulin resistance). Despite the large number of studies included in the review, study heterogeneity and the risk of bias were high, which reduced the certainty of the findings. Most studies had small sample sizes. Generally, no information was identified regarding cardiovascular clinical outcomes.		

Continued...

Table 1 (Continued) — Relevant publications on religiosity and spirituality in the prevention (primary and secondary) of cardiovascular diseases.^{14–28}

Meditation for the primary and secondary prevention of cardiovascular disease. ¹⁸			
Article Type:	Systematic review.	Methodology/ Participants:	81 RCTs (6,971 participants), published up to November 14, 2021, along with reference checking, citation searching, and contact with study authors to identify additional studies. Randomized controlled trials (RCTs) with a duration of 12 weeks or more in adults at high risk of CVD and those with established CVD.
Results:	Very little information regarding the effects of meditation on CVD clinical outcomes and limited information concerning blood pressure and psychological outcomes for individuals at risk of CVD or with established CVD.		
Religious or spiritual coping, religious service attendance, and type 2 diabetes: a prospective study of women in the United States. ¹⁹			
Article Type:	Cohort study on the impact of R/S on T2DM and review of cross-sectional and longitudinal studies.	Methodology/ Participants:	Cross-sectional and longitudinal studies on the subject, including the NHS II, which is a large, ongoing prospective study in the United States, initiated in 1989, recruiting 116,429 registered nurses across 14 states.
Results:	R/S was not significantly associated with T2DM, but its role in other chronic conditions may be important.		
The association of religion and spirituality with obesity and a weight change in the USA: a large-scale cohort study. ²⁰			
Article Type:	Large-scale cohort.	Methodology/ Participants:	Using the NHS II cohort, follow-up occurred from 2001 to 2015, with up to 35,547 participants evaluated for analyses of religious or spiritual coping and attendance at religious services.
Results:	There was no significant association between religious or spiritual coping, attendance at religious services, obesity, and weight change. Although religion and spirituality are prominent in American society, they are not significant psychosocial factors influencing body weight in this sample.		
Association of religiosity and spirituality with quality of life in patients with cardiovascular disease: a systematic review. ²¹			
Article Type:	Systematic review.	Methodology/ Participants:	Fifteen articles included, published between 2002 and 2017, the majority in the USA.
Results:	Sixteen dimensions of R/S were evaluated using various instruments. The quality of life (QoL) domains analyzed were: global, health-related, and disease-specific. Ten studies reported a significant positive association between R/S and QoL, with higher spiritual well-being, intrinsic religiosity, and church attendance positively associated with mental and emotional well-being. Approximately 50% of the included studies reported negative or null associations. The findings suggest that higher levels of R/S may be related to improved QoL among CVD patients, with associations varying depending on the R/S dimension and the QoL domain evaluated.		
Religiosity, spirituality and quality of life of dialysis patients: a systematic review. ²²			
Article Type:	Systematic review.	Methodology/ Participants:	PRISMA methodology, systematic search in PubMed and SCOPUS databases (from January 1980 to December 2018). It identified 50 articles (N=9,265).
Results:	R/S has a positive impact on most quality of life (QoL) parameters in dialysis patients.		
Systematic review and meta-analysis of church-based interventions to improve cardiovascular disease risk factors. ²³			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	Systematic searches in MEDLINE, Embase databases and manual reference searches until November 2021. Eighty-one studies (N=17,275) were identified.
Results:	Church-based interventions were associated with a reduction in: body weight (-1.4 kg, 95% CI: -2.6 to -0.5; I ² : 85.5%); waist circumference (-2 cm, 95% CI: -3.5 to -0.3; I ² : 72.9%); systolic blood pressure by -2.3 mmHg (95% CI: -4.3 to -0.3; I ² : 48.8%), and a trend toward reduction in DBP by -1.2 mmHg (95% CI: -2.48 to 0.07; I ² : 52.2%). The interventions were associated with improved dietary patterns (54% of RCTs) and increased physical activity (p < 0.05; 48% of RCTs). Few studies evaluated glycemic and cholesterol control, as well as smoking cessation, failing to achieve statistical power. Church-based interventions targeting cardiovascular risk factors are effective in reducing them, especially in populations with health disparities.		

Continued...

Table 1 (Continued) — Relevant publications on religiosity and spirituality in the prevention (primary and secondary) of cardiovascular diseases.^{14–28}

The effects of nurse-led spiritual care on psychological well-being in the healthcare services of patients with cardiovascular diseases in Iran: a systematic review. ²⁴			
Article Type:	Systematic review.	Methodology/ Participants:	Using PRISMA guidelines, a comprehensive search was conducted across multiple databases (PubMed, Scopus, EMBASE, CINAHL, Cochrane Library, SID, Magiran, and Web of Science), identifying 15 relevant articles in English and Persian (2013 to 2023) with N=1,035.
Results:	All reviewed studies reported positive outcomes with spiritual interventions, demonstrating their effectiveness in reducing anxiety, depression, pain, stress, and negative emotions, as well as improving quality of life and potentially life expectancy.		
The impact of gratitude interventions on patients with cardiovascular disease: a systematic review. ²⁵			
Article Type:	Systematic review.	Methodology/ Participants:	19 RCTs published in the English language between 2005 and 2023 that evaluated interventions stimulating gratitude (via the Gratitude Questionnaire – GQ6) and patients at cardiovascular risk.
Results:	The following outcomes were observed with statistical significance after the interventions: reduction in inflammatory biomarker levels (CRP, TNF-alpha, IL-6, interferon-gamma); greater treatment adherence in general and following an ACS event; reduction in heart failure progression; improved dietary patterns; better control of type 1 diabetes and glycohemoglobin; and improved sleep quality and duration.		
The association between religiosity, spirituality, and medication adherence among patients with cardiovascular diseases: a systematic review of the literature. ²⁶			
Article Type:	Systematic review.	Methodology/ Participants:	Selected English-language observational studies, RCTs, and quantitative studies up to September 2018 were included, encompassing CVDs such as HTN, HF, and ACS, aiming to evaluate medication adherence in patients of all ages.
Results:	Nine studies were identified (6 cross-sectional, one mixed-method study, one experimental, and one cohort): one of high quality and the remainder of moderate to low quality. Positive associations for HTN were: prayer as a P-RCOPE mechanism; organizational, non-organizational, and intrinsic religiosity; faith-based educational interventions; and high levels of meditation. For HF: higher levels of spirituality and intrinsic religiosity yielded mixed results, contributing both positively and negatively. No studies were identified in patients with acute coronary syndrome.		
The effect of observing religious or faith-based fasting on cardiovascular disease risk factors: A systematic review and meta-analysis. ²⁷			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	To compare the impact of different religious fasting practices on the risk of cardiometabolic diseases. Fourteen articles published until March 2023 were selected (updated in January 2024), of which 10 studies were meta-analyses, totaling 755 fasting adults and 661 non-fasting controls.
Results:	The practice of religious fasting was associated with a reduction in body mass index (–0.40 kg/m ² ; 95% CI: –0.70 to –0.10; p<0.01). Observance of Ramadan fasting was associated with a reduction in systolic blood pressure (–3.83 mmHg; 95% CI: –7.44 to –0.23; p=0.04). Conversely, the practice of fasting in the Orthodox Christian tradition was related to a reduction in total cholesterol (–0.52 mmol/L; 95% CI: –0.64 to –0.39; p<0.01). No significant differences were observed in the other analyzed outcomes.		
Effects of static meditation practice on blood lipid levels: a systematic review and meta-analysis. ²⁸			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	Sixteen clinical studies (11 trials and 5 observational experiments) with N: 1,147.
Results:	The meta-analysis shows an association between the practice of meditation in healthy or sub-healthy adults and reduced cholesterol levels, with a mean reduction of –13.91 mg/dL (95% CI: –23.35 to –4.47 mg/dL; p=0.02), along with favorable and even more pronounced impacts on triglyceride levels (MD = –32.56 [–48.44; –16.68] mg/dL; p<0.01). Regular engagement in static meditation practices may be associated with lower levels of triglycerides and, to a lesser extent, cholesterol. Further studies on the topic are recommended to better investigate the relationship between meditation practice and physiological parameters.		

N: number of participants; 95% CI: 95% confidence interval; I²: heterogeneity index; P: statistical significance index; MD: mean; JHS: Jackson Heart Study; SD: standard deviation; LS7: Life's Simple 7; R/S: religiousness/spirituality; CVD: cardiovascular disease; AHA: American Heart Association; RCT: randomized controlled trial; HDL: high-density lipoprotein; LDL: low-density lipoprotein; T2DM: type 2 diabetes mellitus; NHS II: Nurses' Health Study II; USA: United States of America; QoL: quality of life; DBP: diastolic blood pressure; SBP: systolic blood pressure; GQ6: gratitude questionnaire; CRP: C-reactive protein; IL-6: interleukin-6; TNF-alpha: tumor necrosis factor-alpha; ACS: acute coronary syndrome; HTN: systemic arterial hypertension; HF: heart failure; P-RCOPE: positive religious-spiritual coping.

4.1.6. Second Edition Updates

Table 2 — New relevant publications on religiosity and spirituality in the prevention (primary and secondary) of cardiovascular diseases.³⁴⁻³⁹

The Impact of Narrative Expressive Writing on Heart Rate, Heart Rate Variability, and Blood Pressure Following Marital Separation. ³⁴			
Article Type:	Experimental study with randomized allocation.	Methodology/ Participants:	Community sample of 109 recently separated adults. Participants were randomized to traditional expressive writing (n=33), narrative expressive writing (n=38), or a control writing condition (n=38), and assessed at three time points over an average of 7.5 months. Each laboratory assessment included 27 minutes of physiological measurements, with heart rate, heart rate variability, and blood pressure averaged across six tasks.
Results:	Narrative expressive writing was associated with lower heart rate (B=-3.38; 95% CI, -5.48 to -1.23; p=0.002) and higher heart rate variability (B=0.34; 95% CI, 0.15 to 0.53; p<0.001) 7.5 months later compared with control writing. No significant difference in blood pressure was observed. Traditional expressive writing did not differ from control. The findings suggest a possible favorable cardiovascular physiological response to narrative meaning-making after marital separation, although the study was not designed to establish clinical cardiovascular outcomes.		
Trait Anger But Not Anxiety Predicts Incident Type 2 Diabetes: The Multi-Ethnic Study of Atherosclerosis (MESA). ³⁵			
Article Type:	Prospective cohort study.	Methodology/ Participants:	The Multi-Ethnic Study of Atherosclerosis included 5,598 White, Black, Hispanic, and Chinese participants (53.2% women; mean age 61.6 years) without diabetes or cardiovascular disease at baseline. Trait anger and trait anxiety were assessed using the Spielberger Trait Anger and Anxiety Scales, respectively. Participants were followed for 11.4 years, and Cox proportional hazards models evaluated incident type 2 diabetes with sequential adjustment for demographic, depressive, lifestyle, inflammatory, and metabolic factors.
Results:	High total trait anger was associated with incident type 2 diabetes compared with low anger (HR=1.50; 95% CI, 1.08–2.07). The association was attenuated and became non-significant after adjustment for waist circumference (HR=1.32; 95% CI, 0.94–1.86). Anger reaction remained independently associated with incident diabetes (HR=1.07 per unit; 95% CI, 1.03–1.11), whereas anger temperament and trait anxiety were not significantly associated with incident diabetes. The findings identify trait anger, particularly anger reaction, as a potential psychosocial factor associated with metabolic risk.		
Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-Analytic Review. ³⁶			
Article Type:	Meta-analytic review.	Methodology/ Participants:	Published and unpublished prospective studies identified through MEDLINE, CINAHL, PsycINFO, Social Work Abstracts, and Google Scholar, covering January 1980 to February 2014. Studies provided quantitative data on mortality associated with loneliness, social isolation, or living alone. Seventy independent prospective studies comprising 3,407,134 participants were included, with an average follow-up of approximately 7 years. Analyses examined adjusted associations and potential moderators.
Results:	Across studies with statistical control for relevant covariates, social isolation was associated with an OR of 1.29, loneliness with an OR of 1.26, and living alone with an OR of 1.32 for mortality, corresponding to approximately 29%, 26%, and 32% higher likelihood of mortality, respectively. Associations were broadly consistent across sex, follow-up duration, and world region, although initial health status and participant age influenced some estimates. The findings indicate that both objective and subjective deficits in social connection are associated with mortality, while the prospective observational design does not establish causality.		
Purpose in Life and Its Relationship to All-Cause Mortality and Cardiovascular Events: A Meta-Analysis. ³⁷			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	PubMed, Embase, and PsycINFO were systematically searched through June 2015 for prospective studies evaluating purpose in life, meaning, usefulness, engagement, or ikigai in relation to all-cause mortality and/or cardiovascular events. Ten prospective studies with 136,265 participants were included. Study quality was assessed using the Newcastle-Ottawa Scale, and pooled estimates were calculated using a random-effects model.
Results:	Higher purpose in life was associated with lower all-cause mortality (adjusted pooled RR=0.83; 95% CI, 0.75–0.91; p<0.001) and fewer cardiovascular events (adjusted pooled RR=0.83; 95% CI, 0.75–0.92; p=0.001). Subgroup analyses by country, assessment instrument, age, and baseline cardiovascular disease produced similar results. The findings support an association between purpose in life and cardiovascular and overall health outcomes, while mechanisms and effective interventions to increase purpose require further study.		

Continued...

4.1.6. Second Edition Updates

Table 2 (Continued) — New relevant publications on religiosity and spirituality in the prevention (primary and secondary) of cardiovascular diseases.^{14–28}

Spiritual well-being as a protective factor for endothelial dysfunction in clinically healthy adults. ³⁸			
Article Type:	Cross-sectional study.	Methodology/ Participants:	Convenience sample of 148 clinically healthy adults aged 18–60 years recruited in Rio de Janeiro, Brazil, between January 2022 and October 2024. Spiritual well-being was assessed with the FACIT-Sp, depression with the PHQ-9, and anxiety with the GAD-7. Endothelial function was evaluated by brachial artery flow-mediated dilation (FMD), with endothelial dysfunction defined as FMD<10%. Logistic regression and discriminant analyses evaluated independent predictors and the spiritual dimensions associated with endothelial function.
Results:	Endothelial dysfunction was identified in 39.2% of participants. Higher spiritual well-being was inversely associated with endothelial dysfunction (OR=0.929; 95% CI, 0.882–0.978; p=0.005), together with BMI, anxiety, and depression as significant predictors. The association between spiritual well-being and endothelial dysfunction persisted after excluding participants with anxiety or depression. Discriminant analysis showed that inner peace and meaning in life, but not faith, significantly distinguished participants with and without endothelial dysfunction. The cross-sectional design precludes causal inference.		
Life satisfaction components and all-cause and cause-specific mortality: A large prospective cohort study. ³⁹			
Article Type:	Prospective cohort study	Methodology/ Participants:	UK Biobank prospective cohort; 165,842 participants with complete responses to five life-satisfaction components at baseline. An overall life-satisfaction score (0–5) was generated, and all-cause and cause-specific mortality were assessed using multi-variable Cox regression. For the main all-cause mortality model, 154,835 participants with complete baseline covariates were included; median follow-up was 12.9 years.
Results:	Among 165,842 eligible participants, 12,261 all-cause deaths occurred over a median 12.9-year follow-up. Higher overall life satisfaction was associated with lower all-cause mortality (adjusted HR 0.94; 95% CI 0.93–0.95 per 1-point increase). Health satisfaction showed the strongest association: high/extreme satisfaction was associated with HR 0.52 (95% CI 0.49–0.55) and moderate satisfaction with HR 0.63 (95% CI 0.59–0.66), compared with unsatisfaction (P-trend <0.001), independently of the other satisfaction components, physical health, and sociodemographic factors. Associations for family, friendship, work, and financial satisfaction were attenuated after adjustment for the other components, and similar findings were observed for cause-specific mortality. Because this was an observational study with a single baseline assessment of life satisfaction, causality cannot be inferred.		

N: number of participants; 95% CI: 95% confidence interval; P: statistical significance index; MD: mean; SD: standard deviation.

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Chapter 4.2

Systemic Arterial Hypertension

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Chapter available
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4.2.1. Religiosity and Spirituality in Systemic Arterial Hypertension

Systemic arterial hypertension (SAH) is one of the primary risk factors for CVD, and its control is crucial for the prevention of complications such as myocardial infarction and stroke. R/S has been investigated as an ally in the management of hypertension, both in reducing blood pressure levels and in improving treatment adherence.¹

Recent research suggests that R/S practices (e.g., prayer and meditation) may contribute to the reduction of blood pressure. A study published in the *Journal of Hypertension* demonstrated that patients who practiced transcendental meditation showed significant reductions in SBP and DBP. Furthermore, R/S has been associated with lower levels of stress and anxiety, factors that can positively influence hypertension control.^{2,3}

Some studies suggest that R/S is associated with lower cardiovascular reactivity to stress, a reduction in cortisol levels, and better health habits, such as adherence to pharmacological treatment.⁴

Patients who find meaning and purpose in their spiritual beliefs tend to be more resilient and committed to self-care. Therefore, R/S can also play an important role in coping with the diagnosis and adhering to treatment.^{5,6}

The impacts of R/S on SAH must be analyzed in the light of EBM. Most studies were not derived from large RCTs, systematic reviews, or meta-analyses of RCTs; therefore, they have not produced robust scientific evidence. However, available studies support the need for new research with methodological rigor to test the hypotheses raised. The most relevant publications from the EBM perspective on the subject were selected, and the objective data from each study will be described without issuing value judgments (Table 1).^{1,5,7-15}

Mechanisms involved in R/S regarding SAH, according to the most relevant publications:

1) Reduction of Stress and Sympathetic Nervous System Activation:

- Spiritual practices, such as prayer, meditation, and participation in religious services, are associated with lower cortisol levels and reduced sympathetic activity, contributing to the decrease in blood pressure.¹⁶

- A systematic review and meta-analysis

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demonstrated that spirituality and religiosity are correlated with lower blood pressure levels.¹²

2) Adoption of Healthy Lifestyles:

- Individuals with greater spiritual involvement often adopt healthier habits, such as a balanced diet, regular physical activity, and lower consumption of alcohol and tobacco.¹⁷

- Longitudinal studies indicate that these factors contribute significantly to the reduction and control of hypertension.⁸

3) Improvement of Quality of Life and Resilience:

- Hypertensive patients with strong spiritual support demonstrate a greater capacity to face challenges related to chronic disease, showing better outcomes in terms of treatment adherence and emotional well-being.¹⁸

- Research indicates that spirituality can act as a protective factor against depression and anxiety, common disorders in hypertensive patients.⁴

4.2.2. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Table 1 — Relevant publications on religiousness, spirituality, and systemic arterial hypertension.^{1,5,7–15}

Spiritually based interventions for high blood pressure: a systematic review and meta-analysis. ¹			
Article Type:	Systematic review and meta-analysis.	Methodology/Participants:	23 RCTs with English or Persian-speaking populations over 18 years of age that reported SBP and DBP. A systematic search was conducted using the PubMed, Scopus, and Cochrane databases to identify studies evaluating spiritual interventions, including meditation, transcendental meditation, mindfulness, and yoga, for elevated BP among adults up to January 1, 2022.
Results:	Following spirituality-based interventions (yoga, meditation, and others), a significant reduction in SBP was identified (weighted mean difference: -7.63 mmHg; 95% CI: -9.61 to -5.65; p<0.001). DBP results also identified a significant reduction (weighted mean difference: -4.75; 95% CI: -6.45 to -3.05; p<0.001). However, there was high heterogeneity among the studies (I ² 96.9%; p<0.001).		
Espiritualidade/religiosidade e adesão ao tratamento em indivíduos hipertensos. ⁵			
Article Type:	Transversal quantitativo.	Methodology/Participants:	237 hypertensive patients (mean age 63.0 ± 12.1 years; 53.6 men) from a Brazilian teaching hospital, who had been diagnosed with SAH for at least 6 months and had a “Mini-Mental” score greater than 25 points. Pregnant women and patients with severe mental illness were excluded.
Results:	Intrinsic religiosity (95% CI: 0.08–1.09), values and beliefs (95% CI: -1.74 to -0.38), and forgiveness (95% CI: 0.16–1.23) were significantly associated with higher QATSAH scores. Higher scores for intrinsic religiosity (95% CI: 0.22–1.13) and forgiveness (95% CI: 0.13–1.19) were associated with treatment adherence, while lower scores in values and beliefs showed a better association (95% CI: -1.58 to -0.20).		

Continued...

Table 1 (Continued) — Relevant publications on religiousness, spirituality, and systemic arterial hypertension.^{1,5,7–15}

Modifiable and non-modifiable factors associated with low awareness of hypertension treatment in Indonesia: a cross-sectional population-based national survey. ⁷			
Article Type:	Transversal longitudinal.	Methodology/ Participants:	7,920 hypertensive Indonesians (71.1% under 60 years; 53.8% women – 82.8% religious; 17.2% non-religious) confirmed by three ambulatory BP measurements.
Results:	Individuals with high religiosity and older age likely presented low awareness regarding hypertension treatment (OR: 1.55; 95% CI: 1.24–1.94). The authors explained the finding as potential cultural issues of the country and beliefs related to terminality, in addition to the greater use of alternative treatments in this subgroup.		
Spirituality-based intervention in hypertension: eEffects on blood prEssure and EndotheliaL function — FEEL Trial Results. ⁸			
Article Type:	ECR aberto.	Methodology/ Participants:	100 individuals (mean age 57.3 ± 11.5 years; 71% women) with stage I and II hypertensi-on with no treatment modification in the last 30 days prior to randomization.
Results:	The intervention group (receiving daily WhatsApp messages encouraging gratitude, optimism, purpose in life, and relea-se of resentment), compared to the control group, showed a reduction of 7.6 mmHg in office SBP (95% CI: -11.7; -3.48), 4.1 mmHg in central blood pressure (95% CI: -7.87; -0.34), and 4.12% in flow-mediated dilation (95% CI: 1.41; 6.82).		
Correlation between religion and hypertension. ⁹			
Article Type:	Systematic review.	Methodology/ Participants:	79 original articles and 18 reviews up to 2016, including religions, religiosity, and religious denominations and their relationship with hypertension or blood pressure.
Results:	Religious leaders, compared with religious individuals, had a positive association with better blood pressure control in most cross-sectional and long-term prospective cohort studies. Dimensions of religiosity (having a religious affiliation, attendance at religious services, higher intrinsic religiosity, and engaging in private religious activities) were mostly as-sociated with a greater protective effect on blood pressure in cross-sectional studies, although neutral or negative ef-fects were present in a few articles. Higher levels of P-RCOPE had more protective than neutral effects. Belief in eternal life alone, in most studies, had neutral effects on blood pressure. The authors highlighted the significant methodological heterogeneity of the articles at the time.		
Effect of yoga on blood pressure in prehypertension: a systematic review and meta analysis. ¹⁰			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	Five RCTs whose intervention involved all forms of yoga, pranaya-ma, and meditation.
Results:	For SBP, the mean difference was -0.62 mmHg (95% CI: -0.83; -0.41; I ² : 88%) after intervention. For DBP, the mean difference was -0.81 (95% CI: -1.39; -0.23; I ² : 86%). Despite the high heterogeneity, the risk of bias was considered low. The small sample size is noted (196 individuals in the intervention group versus 180 in the control group).		
Content, structure, and delivery characteristics of yoga interventions for managing hypertension: a systematic re-view and meta-analysis of randomized controlled trials. ¹¹			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	33 RCTs on interventions involving the main components of yoga.
Results:	Improvement in SBP, DBP, or both was identified in 18, 14, and 20 interventions, respectively. 13 of the 20 interven-tions incorporated the three main components of yoga (asana, pranayama, and dhyana and relaxation practices) and allocated similar durations to each component. The most common duration and frequency of interventions with positive results were 45 minutes/session (in 5 interventions), 7 days/week (in 5 interventions), and 12 weeks (in 11 in-terventions). There was wide methodological variation among the studies regarding the analyzed outcomes (I ² > 80%) and a high risk of bias due to the lack of standardization of interventions.		
Mindfulness interventions reduce blood pressure in patients with non-communicable diseases: a systematic review and meta-analysis. ¹²			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	14 studies (10 RCTs and 4 experimental; N=1,117: 593 intervention group versus 482 control) published between 2009 and 2019 that evaluated blood pressure outcomes in patients with non-commu-nicable diseases (9 with CVD, three with diabetes mellitus, and two oncological) following a mindfulness intervention.
Results:	The pooled effect estimate after the mindfulness intervention for SBP was -5.53 mmHg (95% CI: -7.81 to -3.25; I ² : 87.8%); for DBP, it was -2.13 mmHg (95% CI: -2.97 to -1.30; I ² : 46.2%).		

Continued...

Table 1 (Continued) — Relevant publications on religiousness, spirituality, and systemic arterial hypertension.^{1,5,7–15}

Effect of mindfulness-based meditation on blood pressure among adults with elevated blood pressure and hypertension: A systematic review of randomized controlled trials. ¹³			
Article Type:	Systematic review.	Methodology/ Participants:	9 RCTs (N=543; mean age 54.9 ± 9 years) published up to December 2023 in patients with stage I or II SH, comparing the effect of mindfulness-based intervention on SBP and DBP.
Results:	Eight RCTs identified a significant reduction in SBP with a large effect size (Cohen's d: 0.138 to 2.885), with the majority showing medium to large effects. RCTs conducted among participants using medication showed significant effects on SBP, whereas those without medication did not. For DBP, four RCTs observed a significant reduction in DBP following the intervention, with small to intermediate effect sizes in most RCTs (Cohen's d: 0.046–1.207).		
Effect of meditation, mindfulness-based stress reduction, and relaxation techniques as mind-body medicine practices to reduce blood pressure in cardiac patients: a systematic review and meta-analysis. ¹⁴			
Article Type:	Systematic review and meta-analysis.	Methodology/ Participants:	15 RCTs studying meditation, mindfulness, and relaxation techniques published between 2000 and 2020 in CVD patients with outcomes on SBP and DBP.
Results:	The reduction in SBP identified among the RCTs was -0.78 mmHg (95% CI: -1.36 to -0.20; I ² : 94%), and no significant reduction was identified for DBP (95% CI: -0.91 to 0.39; I ² : 95%). In the subgroup analysis, the effect on SBP reduction was more significant in meditation and breathing techniques with a duration of at least 8 weeks. The risk of bias was considered low among the studies.		
Effect of religious fasting in ramadan on blood pressure: results from LORANS (London Ramadan Study) and a meta-analysis. ¹⁵			
Article Type:	Systematic review and meta-analysis of the London Ramadan Study (LORANS).	Methodology/ Participants:	All published and unpublished studies up to March 2020 that included SBP and DBP measurements two weeks before and after Ramadan hospitalization. 85 individuals participated in the study, with a mean age of 45.6 ± 15.9 years, of whom 52.9% (N=45) were male. 2,778 studies were identified, of which 33 (N=3,213) were included in the analysis.
Results:	SBP and DBP after Ramadan fasting showed a reduction of 7.29 mmHg (95% CI: -4.74 to -9.84) and 3.42 mmHg (-1.73 to -5.09), respectively, even after adjustment for potential confounding factors. SBP and DBP after/compared to the period prior to Ramadan showed a mean reduction of 3.19 mmHg (-4.43 to -1.96; I ² = 48%) and 2.26 mmHg (-3.19 to -1.34; I ² = 66%), respectively. In subgroup analyses, a significant reduction in blood pressure was observed in healthy individuals and those with hypertension or diabetes, but not in patients with chronic kidney disease. The study suggests beneficial effects of Ramadan fasting on blood pressure, independent of changes in weight, total body water, and fat mass. These findings support government guidelines that describe Ramadan fasting as a safe religious practice regarding blood pressure control.		

P-RCOPE: positive religious-spiritual coping; CVD: cardiovascular disease; RCT: randomized clinical trial; SH: systemic hypertension; I²: heterogeneity index; 95% CI: 95% confidence interval; N: number of participants/sample size; OR: odds ratio; p: statistical significance index; DBP: diastolic blood pressure; BP: blood pressure; SBP: systolic blood pressure; QATSAH: Questionnaire of Adherence to the Treatment of Hypertension.

4.2.3. Second Edition Updates

Table 2 — New relevant publication on religiousness, spirituality, and systemic arterial hypertension.¹⁹

Effects of Acupuncture on Arterial Hypertension and Endothelial Dysfunction: The AHEaD Trial. ¹⁹			
Article Type:	Prospective, single-blind, placebo-controlled, single-center randomized clinical trial.	Methodology/ Participants:	Adults with prehypertension or stage 1 hypertension, at low cardiovascular risk and not receiving antihypertensive therapy. Thirty participants were randomized to manual acupuncture (n=14) or nonpenetrating sham acupuncture (n=16), with two 30-minute sessions per week for 12 weeks (24 sessions). Peripheral and central blood pressure, pulse wave velocity, and brachial artery flow-mediated dilation (FMD) were assessed at baseline, after 12 weeks, and 30 days after treatment.
Results:	After 12 weeks, acupuncture produced a greater reduction in peripheral systolic blood pressure (pSBP) than sham acupuncture (between-group difference -9.1 mmHg; p=0.006) and a greater improvement in FMD (+3.0%; p=0.037). These differences persisted 30 days after treatment (pSBP -8.4 mmHg; p=0.038; FMD +2.9%; p=0.028). No significant between-group differences were observed for peripheral diastolic pressure, central blood pressure, or pulse wave velocity. The authors conclude that acupuncture may be a nonpharmacological treatment option for this selected population, while emphasizing the need for larger multicenter randomized trials. The final sample was smaller than the prespecified target, limiting statistical power for secondary outcomes.		

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Chapter 4.3

Heart Failure



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4.3.1. Religiosity and Spirituality in Heart Failure

Heart failure (HF) is a chronic and debilitating condition affecting millions of people worldwide. In addition to physical challenges, patients frequently face emotional and psychological issues, such as anxiety, depression, and a sense of hopelessness. In this context, R/S can offer emotional support and improve quality of life.¹

Studies have shown that spirituality is associated with greater psychological resilience in patients with HF. Research published in the *Journal of Cardiac Failure* revealed that patients who reported greater involvement in spiritual activities exhibited lower rates of depression and higher treatment adherence. Furthermore, practices such as prayer and meditation can help reduce symptoms such as dyspnea and fatigue, enhancing overall well-being.^{2,3}

Patients with HF frequently encounter emotional and psychological challenges due to the chronic and debilitating nature of the disease. R/S can provide a sense of purpose and comfort, improving quality of life and physician-patient communication, which

allows for more integral care.⁴

In advanced stages of HF, R/S can also play a crucial role in palliative care. Many patients find comfort in their R/S beliefs when facing issues related to the finitude of life. Healthcare professionals must be prepared to address these issues in a sensitive and respectful manner, integrating R/S into the care plan.⁵

Studies evaluating outcomes of R/S and HF can be assessed in the light of EBM; however, most research lacks the methodological quality to make causal assertions. Despite this, the available data assist in formulating hypotheses regarding the identified associations, which may support future studies with better methodological rigor. The main studies evidencing possible associations between R/S and HF have been compiled, and the objective data from each study will be described without issuing value judgments (Table 1).^{1,6-14}

Mechanisms involved in R/S regarding HF, according to the most relevant publications:

Reduction of stress and sympathetic nervous system activation: * Studies indicate that meditation and prayer can reduce sympathetic activation, promoting better autonomic regulation and blood pressure control — determinant factors in the management of HF.¹⁵

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Improvement in treatment adherence: Individuals with greater R/S involvement tend to follow medical recommendations more strictly, including the correct use of medications and the adoption of healthy habits, such as a balanced diet and the practice of physical activities compatible with their functional status.¹⁶

Impact on pain perception and psychological well-being: * Spiritually engaged patients report lower pain perception and better psychological adjustment to chronic illness, suggesting that spirituality may contribute to a more positive coping mechanism for HF.⁵

SBC and is accessible via the internet through the link and/or QR code presented below:



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4.3.2. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the

Table 1 — Relevant publications on religiosity, spirituality, and heart failure.^{1,6-14}

The impact of spiritual care on the psychological health and quality of life of adults with heart failure: a systematic review of randomized trials. ¹⁵			
Article Type:	Systematic review.	Methodology/ Participants:	13 RCTs (N=882; 38.46% with HF and 61.54% with congestive HF) published between 2005 and 2022, which sought to analyze the impact of Re/Sp interventions on the quality of life of adults with HF using various validated scales.
Results:	The RCTs reported significant improvement in the following outcomes: quality of life and satisfaction, emotional health, physical health (blood pressure and exercise tolerance), and mental health. A moderate potential for bias was identified, primarily due to uncertain blinding, lack of allocation concealment, blinding of outcomes, and methodological heterogeneity. All benefits highlight the need for better standardization of Re/Sp interventions within healthcare institutions and in subsequent studies.		
Spirituality and heart failure: a systematic review. ⁶			
Article Type:	Systematic review.	Methodology/ Participants:	7 published studies (N=1,234; mean: 65.8 years) up to April 2023 involving patients with a definitive diagnosis of HF who reported outcomes of interest (quality of life, mortality, and major cardiovascular outcomes) following R/S interventions.
Results:	Mean follow-up of three months across the studies (three observational and four experimental). The primary findings were: increased quality of life, lower reduction in functionality, and a decreased risk of death in patients with greater inner peace and harmony. Study limitations are associated with significant methodological heterogeneity, as well as variations in interventions and R/S definitions.		

Continued...

Table 1 (Continued) — Relevant publications on religiosity, spirituality, and heart failure.^{1,6–14}

The effect of religion intervention on life satisfaction and depression in elderly with heart failure. ⁷			
Article Type:	Randomized quasi-experimental study.	Methodology/Participants:	100 Iranian individuals over 65 years of age (mean age 72.41 ± 8.26 years) with HF from Mostafa-Khomeini Hospital in the city of Ilam.
Results:	Following three months of interventions (reading verses from the Holy Qur'an, performing prayers and discussing the psychological effects of prayer, narrating religious role models, participating in R/S programs, repenting and seeking forgiveness, and moral training/analysis of values), there was an increase in the mean life satisfaction in the intervention group (8.08 ± 4.36\$ versus 5.55 ± 3.96) with p=0.006, and a reduction in the mean depression in the intervention group (28.28 ± 14.78 versus 50.44 ± 14.02) with p=0.006. The questionnaire used for satisfaction was the Life Satisfaction Index A (LSIA) and, for depression, the Beck Depression Inventory (BDI).		
The Palliative Care in Heart Failure (PAL-HF) randomized, controlled clinical trial. ⁸			
Article Type:	Randomized controlled trial.	Methodology/Participants:	150 participants with HF (mean age 71 years; 47% women; 55% with left ventricular ejection fraction < 45%).
Results:	The six-month guideline-oriented, multicomponent interdisciplinary palliative care intervention group demonstrated an increase in spiritual well-being levels according to the FACIT scale (difference of 11.77 points; 95% CI: 0.84–22.71; p=0.035).		
Yoga as an adjuvant therapy in heart failure patients on optimal medical management analysed using echocardiographic parameters. ⁹			
Article Type:	Prospective non-randomized trial.	Methodology/Participants:	75 patients with heart failure, including 61 men and 14 women. The intervention and control groups consisted of 35 and 40 individuals, respectively. The intervention group received yoga therapy and standardized clinical treatment, while the control group received clinical treatment only.
Results:	Echocardiographic parameters were observed to compare the control and intervention groups, and these demonstrated no significant difference between the two groups (p>0.05). However, echocardiographic parameters from baseline to six months and one year showed a significant improvement (p<0.05) in the intervention group. Functional class (NYHA) was evaluated after follow-up, and a value of p<0.05 showed a substantial improvement after the intervention. Yoga therapy resulted in better prognosis, functional outcome, and left ventricular performance in HF patients with NYHA III or lower. Therefore, this investigation sought to justify its importance as an adjuvant/complementary treatment for HF patients.		
Impacto de um programa de redução do estresse, meditação e mindfulness em pacientes com insuficiência cardíaca crônica: um ensaio clínico randomizado. ¹⁰			
Article Type:	Randomized controlled trial.	Methodology/Participants:	Of 221 patients assessed for study inclusion, 133 were eligible; 101 patients were contacted, while the remainder were not approached due to outdated telephone contact information. A total of 38 patients agreed to participate and were randomized into the intervention and control groups. Of these 38, 32 patients completed the evaluation protocols, with 13 in the intervention group and 19 in the control group. The sample was predominantly composed of men, self-declared as mixed-race (pardo), NYHA class II, with a complete high school education, and diagnosed with heart failure with reduced ejection fraction.
Results:	The intervention resulted in a significant reduction in perceived stress from 22.8 ± 4.3 to 14.3 ± 3.8 points on the Perceived Stress Scale in the intervention group, vs. 23.9 ± 4.3 to 25.8 ± 5.4 in the control group (p<0.001). Significant improvements were observed in quality of life (p=0.013), mindfulness (p=0.041), sleep quality (p<0.001), and the 6-minute walk test (p=0.004) in the intervention group compared to the control. The Stress Reduction, Meditation, and Mindfulness Program effectively reduced perceived stress and improved clinical outcomes in HF patients.		
Spirituality-based palliative care education on quality of life, death anxiety, and resilience of heart failure patients: randomized controlled clinical trial. ¹¹			
Article Type:	Randomized controlled trial.	Methodology/Participants:	RCT in 80 patients (mean age 64.2 years; 68.75% men) with HF, aiming to evaluate the impact of spirituality-based palliative care education on quality of life, death anxiety, and resilience (baseline, post-intervention, and at three-month follow-up).
Results:	At baseline, no significant differences were observed between the control and intervention groups regarding quality of life, death anxiety, and resilience. Immediately post-intervention, the intervention group demonstrated improved quality of life (p<0.001), a lower degree of death anxiety (p<0.001), and greater resilience (p<0.001). These significant improvements in scores were maintained at the three-month follow-up (p<0.05). No significant changes were observed in the control group. The results demonstrated that spirituality-based palliative care education effectively reduced death anxiety while improving the quality of life and resilience of HF patients.		

Continued...

Table 1 (Continued) — Relevant publications on religiosity, spirituality, and heart failure.^{1,6–14}

The efficacy of psychological interventions on health-related quality of life for patients with heart failure and depression: a systematic review. ¹²			
Article Type:	Systematic review.	Methodology/ Participants:	9 quantitative studies (experimental and non-experimental; N=757). The interventions analyzed included CBT, CBT combined with physical exercise, mindfulness-based psychoeducation, coping skills training, and innovative holistic meditation.
Results:	CBT was significantly associated with the improvement of depression and quality of life, in addition to reducing the risk of hospitalization. Mindfulness-based psychoeducation, holistic meditation, and coping skills training also positively impacted depression and quality of life. Coping skills training further reduced the risks of hospitalization and mortality. Although psychological interventions show benefits for adults with CHF and depression, the overall evidence presents several limitations, including publication bias and small sample sizes. Larger studies with greater statistical power are necessary to confirm or refute these findings and to better understand how specific characteristics of the interventions and samples influence the outcomes.		
Spirituality in patients with heart failure. ¹³			
Article Type:	JACC review article.	Methodology/ Participants:	The authors reviewed the studies available in the MEDLINE, EMBASE, and SCOPUS databases (N=47 studies) that reported the association between spirituality and HF up to the time of publication, as well as the conceptual and practical aspects of this approach.
Results:	The authors found that the association between HF and spirituality is linked to increased quality of life, medication adherence, and a reduction in anxiety, depression, and rehospitalizations in patients with chronic and acute HF. The most frequently cited limitation was the methodological quality of the studies (exploratory or with small sample sizes). The authors strongly advocated for the need for further research and investigations to better understand the role of spirituality in this patient population.		
It takes a village: exploring the impact of social determinants on delivery system outcomes for heart failure patients. ¹⁴			
Article Type:	Retrospective cohort.	Methodology/ Participants:	5,831 patients with HF who received hospital care between 2010 and 2014 (N=7,393 admissions) from 19 hospitals (11 urban and 8 rural) within a single-state healthcare delivery system in the United States. The primary outcome included the risk of 30-day all-cause readmission and mortality following discharge at 30, 90, 180, and 365 days.
Results:	The identification of faith had a significant protective effect in HF patients from deprived areas, reducing the odds of 30-day mortality by one-third compared to patients who did not identify with a faith (OR 0.35; 95% CI: 0.12-0.98; p=0.05). These effects persisted between 90 and 180 days. In rural areas, the lack of faith identification had a multiplicative effect on 30-day mortality for patients of low socioeconomic status (OR 14.0; 95% CI: 1.47-132.7; p=0.02). No significant effect was observed for other health outcomes.		

BDI: Beck Depression Inventory; CAD: coronary artery disease; RCT: randomized controlled trial; FACIT: Functional Assessment of Chronic Illness Therapy; HF: heart failure; 95%CI: 95% confidence interval; JACC: Journal of the American College of Cardiology; LSIA: Life Satisfaction Index A; N: number of participants/sample; NYHA: New York Heart Association; OR: odds ratio; P: statistical significance index; Re/Sp: religious/spiritual; R/S: religiosity/spirituality; CBT: cognitive-behavioral therapy.

4.3.3. Second Edition Updates

Table 2 — New relevant publications on religiosity, spirituality, and heart failure.¹⁷

Anger Proneness, Gender, and the Risk of Heart Failure. ¹⁷			
Article Type:	Prospective cohort study.	Methodology/Participants:	The Atherosclerosis Risk in Communities (ARIC) cohort included 13,171 Black and White participants. Anger proneness was assessed at the second examination (1990–1992) using the Spielberger Trait Anger Scale and categorized as low, moderate, or high. Incident hospitalized heart failure was ascertained from medical records through December 2010. Cox proportional hazards models evaluated the association between trait anger and incident heart failure, with additional analyses of all-cause readmission after incident heart failure.
Results:	During a mean 18.5 years of follow-up, 1,985 incident heart failure events occurred. High trait anger was associated with greater heart failure incidence (age-adjusted HR=1.44; 95% CI, 1.23–1.69), with a stronger association among men. After adjustment for race, education, income, diabetes, hypertension, prevalent coronary heart disease, and vital exhaustion, the association was attenuated to HR=1.16 (95% CI, 0.98–1.39) overall and HR=1.26 (95% CI, 1.00–1.60) among men. Among participants with incident heart failure, high trait anger was also associated with a modestly higher risk of all-cause readmission (HR=1.19; 95% CI, 1.00–1.22).		

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FREE = Article available in full, free of charge.

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Chapter 4.4

Coronary Artery Disease

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Chapter available
in Portuguese.

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4.4.1. Religiosity and Spirituality in Coronary Artery Disease

Coronary artery disease (CAD) is one of the leading causes of cardiovascular morbidity and mortality, and its management involves both medical interventions and lifestyle modifications. R/S has been studied as a factor that may positively influence recovery and the prevention of recurrent events in patients with CAD.¹

Recent research indicates that R/S may be associated with a lower recurrence of cardiac events. A case-control study in Sweden suggested that religiosity may be associated with a reduced risk of CAD. Furthermore, spirituality can improve treatment adherence, as patients who find meaning in their beliefs tend to be more committed to self-care.^{2,3}

There are studies suggesting that spirituality may reduce the risk of coronary events by decreasing risk behaviors and improving recovery following interventions, such as angioplasty and coronary artery bypass graft surgery. R/S practices are associated with lower systemic inflammation and better cholesterol control.⁴

Spirituality-based interventions (e.g., cardiac rehabilitation programs that include

mindfulness and yoga practices) have demonstrated significant benefits in improving cardiac function and reducing stress. However, it is essential for physicians to address these practices holistically, considering the individual beliefs of each patient.⁵

Many studies have analyzed the relationship between R/S and CAD in light of EBM; however, it must be emphasized that most of them lack the methodological quality to confirm the identified associations. Despite this limitation, such research helps to formulate hypotheses and better direct future studies on this subject. The primary available studies demonstrating possible associations will be briefly described, and the objective data from each study will be presented without issuing value judgments (Table 1).^{3,6-16}

Mechanisms involved in R/S regarding CAD, according to the most relevant publications:

1) Reduction of stress and neuroendocrine activation:

- R/S practices, such as meditation and prayer, are associated with lower cortisol levels and reduced sympathetic activity, which positively impacts blood pressure and cardiovascular function.¹⁷

2) Treatment adherence:

- Patients with greater involvement in

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R/S practices tend to follow medical recommendations more strictly, including the correct use of medications and participation in rehabilitation programs.¹⁸

3) Psychological well-being and reduction of depression:

- Depression and anxiety are independent risk factors for adverse coronary events. R/S has been associated with lower rates of depression and anxiety in patients with CVD, contributing to improved psychological and emotional well-being.¹⁶

4.4.2. Final Considerations

CVD represents a multifaceted challenge with profound impacts not only on individual health but also on the social fabric and the global economy. Given this reality, it is imperative to adopt measures for the prevention and mitigation of risk factors, aligned with ethical principles and the best available scientific evidence.¹⁹

The substantial quantity of studies available on this topic highlights the growing scientific interest in better understanding how R/S affects general and cardiovascular health. Through these studies, strategies can be defined for its inclusion in national and international clinical guidelines. It is important to engage scientific medical communities in developing studies with higher methodological quality to produce more robust results from a scientific perspective.²⁰

The complexity of chronic disease management requires an integral approach that considers not only clinical aspects but also the social, cultural, spiritual, and economic dimensions that influence care and treatment adherence. Poor therapeutic adherence and patient resistance to adopting better lifestyle habits persist as obstacles, contributing to unfavorable outcomes and burdening healthcare systems.²¹

In this context, R/S emerges as an element of potential transformation, offering significant benefits to patient well-being and improved adherence to therapeutic measures. Growing evidence suggests that R/S-based

practices can complement traditional cardiovascular prevention and care strategies, promoting a more integral and humanized approach. However, it is fundamental that these practices be incorporated respectfully, considering individual patient preferences, ethical principles, and scientific guidelines.^{20,22}

Therefore, encouraging the study and integration of R/S within the scope of cardiovascular health not only expands treatment possibilities but also reinforces the commitment to a more inclusive, ethical, and patient-centered medicine.

4.4.3. Complementary/Interactive Material

This book features additional interactive material (scientific, institutional, informative, etc.), which will allow for deeper study and learning of the subjects addressed in this chapter. The content is located on the institutional website of the Sociedade Mineira de Cardiologia and the SBC and is accessible via the internet through the link and/or QR code presented below:



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Table 1 — Relevant publications on religiousness, spirituality, and coronary artery disease.^{3,6–16}

Stress reduction in the secondary prevention of cardiovascular disease: randomized, controlled trial of transcendental meditation and health education in blacks. ⁶			
Article Type:	Randomized clinical trial.	Methodology/ Participants:	Black Americans from Wisconsin with CAD were randomized to transcendental meditation (intervention, N=99; mean: 59.9 years; 41.4% women) and a health education program (control, N=102; mean: 58.4 years; 44.1% women) to evaluate primary outcomes (all-cause mortality, revascularization, and cardiovascular hospitalizations) and secondary outcomes with a mean follow-up of 5.4 years.
Results:	There was a 48% risk reduction in the primary outcome in the intervention group (RR: 0.52; 95% CI: 0.29–0.92; p=0.025). In the secondary outcome, there was a 24% risk reduction (RR: 0.76; 95% CI: 0.51–1.13; p=0.17). Reductions of 4.9 mmHg in SBP (95% CI: -8.3 to -1.5 mmHg; p=0.01) and in anger expression (p<0.05 for all scales) were observed. Adherence was associated with survival.		
Associations of spiritual well-being and hope with health anxiety severity in patients with advanced coronary artery disease. ⁷			
Article Type:	Cross-sectional study.	Methodology/ Participants:	100 individuals with advanced CAD were recruited from hospitals and health centers in Iran. Patients completed self-report scales of religious spirituality, including the Spiritual Well-Being Scale, Adult Hope Scale, and Short Health Anxiety Inventory.
Results:	Patients with higher levels of hope (β=0.42; p<0.01) and spiritual well-being (β=0.20; p<0.05) reported lower levels of health anxiety. Agency scores (β=0.58; p<0.01) were a significant negative predictor of health anxiety severity. Furthermore, religious spirituality scores (β=0.28; p<0.01) were shown to significantly predict health anxiety levels. However, components of hope and existential spirituality were not significant predictors.		
The effect of spiritual care based on the Sound Heart Model on the spiritual health of patients with acute myocardial infarction. ⁸			
Article Type:	Clinical trial.	Methodology/ Participants:	In 2016, 92 Iranians with AMI were selected by convenience sampling and randomly assigned to intervention (N=46) and control (N=46) groups. The intervention group received the spiritual care program based on the sound heart model, conducted regularly for 3 days, from 5 PM to 8 PM, during hospitalization, and for 1 month at home following hospital discharge. The control group received routine nursing interventions only. Patients completed the Paloutzian and Ellison Spiritual Well-Being Scale at baseline and one month post-intervention.
Results:	The spiritual care program successfully improved mean scores for religious health (7.8), existential health (9.3), and total spiritual health score (17.1) in the intervention group, whereas these scores decreased to 0.9, 3.4, and 4.2 in the control group. A significant difference was found between the intervention and control groups regarding the spiritual health score (p<0.001). The present findings confirmed the effect of spiritual care based on the sound heart model in promoting spiritual health in patients with AMI.		
Espiritualidade e religiosidade no tratamento de pacientes com infarto agudo do miocárdio: revisão integrativa. ⁹			
Article Type:	Review article.	Methodology/ Participants:	To identify the contributions of R/S in the treatment of patients with AMI. Method: Integrative review of articles published between 2007 and 2020 in the PUBMED, LILACS, SCIELO, SCOPUS, CINAHL, BVS Portal, and CAPES Journals Portal databases, using the descriptors: myocardial infarction, religion, spirituality, and patient-centered care, in Portuguese, English, and Spanish.
Results:	After analyzing the studies, only four articles were found that reported the contribution of R/S in the care of patients with AMI. Evidence suggests that patients showed improvement in their spiritual, physical, and psychological conditions, with benefits in recovery, positive assistance in coping with health problems, and risk reduction after the event. R/S exerts a positive or neutral influence on the treatment of patients with AMI, with no evidence of negative effects.		
The relationship between religiosity and ischemic heart disease: a case-control study. ¹⁰			
Article Type:	Case-control.	Methodology/ Participants:	333 Poles (mean age 40 to 85 years) were recruited between September 2017 and February 2018. The study group included participants with ischemic heart disease, while the control group included those without the disease. The validated Polish version of DUREL, the Daily Spiritual Experience Scale, and the Beck Depression Inventory were used.
Results:	The frequency of religious meetings (several times a month) and private religious practices (several times a month) were associated with a decreased prevalence of ischemic heart disease. The use of certain aspects of R/S as a complementary treatment tool may also provide low-cost, non-pharmacological support for patient care, improving quality of life.		

Continued...

Tabela 1 (Continued) — Relevant publications on religiousness, spirituality, and coronary artery disease.^{3,6-16}

Religion, spirituality and risk of coronary heart disease: a matched case-control study and meta-analysis. ³			
Article Type:	Case-control study and meta-analysis.	Methodology/Participants:	90 Iranians with non-fatal CAD were selected and individually matched with 383 hospital controls from the city of Ilam between October 2013 and May 2015. R/S was assessed using a self-administered 102-item questionnaire. A tabular meta-analysis was performed with observational studies comparing high and low levels of R/S and their association with CAD. Additionally, a dose-response meta-analysis was conducted using generalized least squares regression.
Results:	Participants in the upper quartile presented lower odds of CAD compared to those in the lower quartile regarding religious belief (OR 0.20; 95% CI: 0.06–0.59), religious commitment (OR 0.36; 95% CI: 0.13–0.99), religious emotions (OR 0.39; 95% CI: 0.18–0.87), and total R/S score (OR 0.30; 95% CI: 0.13–0.67). The meta-analysis demonstrated a significantly reduced relative risk of 0.88 (95% CI: 0.77–1.00) when comparing individuals with high versus low levels of R/S. In the dose-response analysis, compared to individuals who did not attend religious services, the relative risks for CAD were 0.77 (95% CI: 0.65–0.91) for a monthly frequency of once and 0.27 (95% CI: 0.11–0.65) for a frequency of five times per month. R/S was shown to be associated with a significant reduction in CAD risk. The potential causal nature of these observed associations warrants the conduct of large-sample RCTs.		
An intervention program using the health belief model to modify lifestyle in coronary heart disease: randomized controlled trial. ¹¹			
Article Type:	Randomized Controlled Trial.	Methodology/Participants:	120 individuals with CAD seeking care at a general hospital in Iran were randomized into intervention or control groups. Data were collected through a specific questionnaire based on the Health Belief Model (HBM) and the Health Promoting Lifestyle Profile II (HPLP-II) scale. Clinical outcomes such as blood pressure, BMI, and fasting blood glucose were also measured. The intervention group received personalized education based on HBM principles in addition to routine care, while the control group received routine care only. Three months post-intervention, both groups were re-evaluated using Student's t-test and analysis of covariance (ANCOVA).
Results:	All subscale scores of the Health Belief Model (HBM) indicated significant improvements in the intervention group, in contrast to the control group, whose scores remained unchanged or worsened. The dimensions of perceived severity and perceived susceptibility showed the greatest change. The total score on the HPLP-II scale improved significantly in the intervention group (\$p < 0.001\$; \$F = 747.5\$); however, the subscales of spiritual growth and inter-personal relations showed no significant differences between groups at follow-up. After adjusting for baseline scores, significant improvements in the lifestyle subscales were also accompanied by significant improvements in clinical measures. The HBM-based behavioral modification program promoted improvements in both lifestyles and clinical measures in CAD patients. The application of this model in patients with other CVDs may demonstrate similar results in the future.		
The effect of a preoperative spiritual/religious intervention on anxiety in Shia Muslim patients undergoing coronary artery bypass graft surgery: a randomized controlled trial. ¹²			
Article Type:	Randomized Controlled Trial.	Methodology/Participants:	To evaluate the impact of a preoperative spiritual/religious training intervention, aligned with the Islamic practice of supplication (Zikr), administered in five 45-minute sessions, compared to standard care. 70 participants were selected between April and June 2011 according to inclusion criteria and randomly allocated to intervention and control groups. Baseline anxiety levels and intervention effects were assessed using the Persian version of the Hamilton Anxiety Rating Scale.
Results:	Baseline characteristics were comparable between the intervention and control groups. Following the intervention, a statistically significant difference was observed in mean anxiety scores between the intervention and control groups (19.48 ± 2.03 vs. 43.27 ± 5.49; p<0.001). Preoperative spiritual/religious training can significantly reduce anxiety in Muslim patients undergoing coronary artery bypass graft surgery. Further evaluation of this intervention in other populations is recommended, emphasizing the importance of culturally appropriate strategies.		
The effect of spiritual care on spiritual health of patients with cardiac ischemia. ¹³			
Article Type:	Single-blind Randomized Controlled Trial.	Methodology/Participants:	To evaluate the effect of a spiritual care program on the spiritual well-being of cardiac ischemia patients admitted to the Coronary Care Unit (CCU) of Al-Zahra Hospital in Isfahan, Iran. 64 ischemic patients hospitalized in the CCU were randomly divided into intervention and control groups. The spiritual care program included supportive presence, rituals, and the use of support systems, applied over three days. The Spiritual Well-being questionnaire was administered before and after the intervention in both groups.

Continued...

Tabela 1 (Continued) — Relevant publications on religiousness, spirituality, and coronary artery disease.^{3,6–16}

(Continued)	Mean spiritual well-being scores showed no significant difference between groups prior to the intervention (p=0.84). In the intervention group, a significant difference was observed between the mean scores of the existential dimension (p<0.001) and the total spiritual well-being score (p<0.001) before and after the intervention. In the control group, this difference was not significant (p=0.17). Following the intervention, there was a significant difference between the intervention and control groups regarding the mean of the existential dimension (p=0.01) and the total spiritual well-being score (p=0.01); however, there was no significant difference in the religious dimension between groups (p=0.25). The spiritual care program promoted improvements in the spiritual well-being of ischemic patients, particularly in the existential dimension and the overall score. These results indicate that nurses can utilize spiritual care programs as a strategy to enhance the spiritual well-being of patients.		
Spiritual well-being and severity of coronary artery disease: mediating effects of anger rumination and worry. ¹⁴			
Article Type:	Descriptive and cross-sectional study.	Methodology/ Participants:	327 patients with CAD (138 women, 189 men) from Afshar Hospital in Yazd, Iran. Spiritual well-being, anger rumination, worry, and CAD severity were measured using demographic and medical information questionnaires, the Spiritual Well-Being Scale (SWBS), the Anger Rumination Scale (ARS), the Penn State Worry Questionnaire (PSWQ), and the Gensini score. Study published in 2020.
Results:	CAD severity was negatively correlated with spiritual well-being (r=-.62, p<0.01) and positively correlated with anger rumination (r=.58, p<0.01) and worry (r=.33, p<0.01). The relationship between spiritual well-being and CAD severity was mediated by anger rumination. The direct effect of spiritual well-being on CAD severity was statistically significant (β=-.06, 95% CI: -0.09; -0.04). A significant indirect effect of spiritual well-being on CAD severity through anger rumination was found (β=-.03, 95% CI: -.05; -.02). These results highlight the potential benefits of spiritual well-being for patients with CAD, helping them reduce anger rumination and, consequently, CAD severity.		
Relationship of anxiety, stress, and depression with spiritual health in patients with acute coronary artery disease. ¹⁵			
Article Type:	Descriptive-analytical study.	Methodology/ Participants:	294 patients with ACS, over 10 months, in university hospitals affiliated with the Qom University of Medical Sciences, Iran, 2017. Data collection was performed using questionnaires on demographic and clinical data, in addition to validated instruments for the assessment of depression, anxiety, stress, and spiritual health.
Results:	There were significant correlations between anxiety and stress with the existential health dimension (r=-0.196; p=0.001 and r=-0.171; p=0.003, respectively) and between depression with the existential and religious health dimensions (r=-0.294; p=0.001 and r=-0.244; p=0.001, respectively). Furthermore, levels of depression and stress were higher in older age groups, while existential health was lower. Depression, stress, and scores for the existential and religious dimensions of spiritual health were higher in patients with a history of chronic diseases. In patients with a history of cardiovascular medication use, levels of stress, anxiety, and spiritual health (existential and religious) were also higher. Among ACS patients, those who presented higher levels of spiritual health reported lower levels of anxiety and depression. Thus, it is recommended that nurses implement self-care programs with the presence of religious counselors in hospitals, including post-discharge follow-up, aiming to promote spiritual health and reduce patient levels of anxiety, stress, and depression. Special attention should be given to patients over 50 years of age, those with a history of chronic diseases, and those using cardiovascular medications.		
Spiritual well-being and its association with coronary artery disease. ¹⁶			
Article Type:	Case-control study.	Methodology/ Participants:	88 adults (42 cases of patients with CAD recruited from the Dante Pazzanese Institute and 46 controls without CAD recruited from public health services) interviewed individually between April and June 2017. A spiritual well-being scale was used, and socioeconomic and demographic information was collected.
Results:	Statistically, there was no significant difference between the categories and levels of spiritual well-being in either group. Both presented high rates, driven by the high level of religious well-being. There was no difference between the rates attributed to the items of the religious well-being subscale in the case or control groups (p=0.959 and p=0.817). However, the existential well-being subscale revealed variability among the scores attributed to each item in both groups (p<0.001). The results revealed a high level of spiritual well-being in the analyzed sample. There was no correlation between the levels of spiritual, religious, and existential well-being with CAD, possibly due to the lower capacity of the religious well-being subscale to discriminate between the groups.		

ANCOVA: analysis of covariance; ARS: Anger Rumination Scale; β : probability of false negative; CAD: coronary artery disease; DUREL: Duke University Religion Index; RCT: randomized clinical trial; F: F-value of the ANOVA test variability; HBM: Health Belief Model; HPLP-II: Health Promoting Lifestyle II; P: statistical heterogeneity index; AMI: acute myocardial infarction; 95% CI: 95% confidence interval; BMI: body mass index; N: number of participants/sample size; OR: odds ratio; p: statistical significance index; SBP: systolic blood pressure; PSWQ: Penn State Worry Questionnaire; r: correlation coefficient; R/S: religiousness/spirituality; RR: relative risk; ACS: acute coronary syndrome; SWBS: Spiritual Well-Being Scale; CCU: Coronary Care Unit.

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FREE = Article available in full, free of charge.

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APPENDICES

Appendix 1 — Duke Religion Index (DUREL) - Portuguese version.^{1,2}

1) Com que frequência você vai a uma igreja, templo ou outro encontro religioso? 1. Mais do que uma vez por semana. 2. Uma vez por semana. 3. Duas a três vezes por mês. 4. Algumas vezes por ano. 5. Uma vez por ano ou menos. 6. Nunca.	3) Em minha vida, eu sinto a presença de Deus (ou do Espírito Santo). 1. Totalmente verdade para mim. 2. Em geral é verdade. 3. Não estou certo. 4. Em geral não é verdade. 5. Não é verdade.
2) Com que frequência você dedica o seu tempo a atividades religiosas individuais, como preces, rezas, meditações, leitura da bíblia ou de outros textos religiosos? 1. Mais do que uma vez ao dia. 2. Diariamente. 3. Duas ou mais vezes por semana. 4. Uma vez por semana. 5. Poucas vezes por mês. 6. Raramente ou nunca.	4) Minhas crenças religiosas estão realmente por trás de toda a minha maneira de viver. 1. Totalmente verdade para mim. 2. Em geral é verdade. 3. Não estou certo. 4. Em geral não é verdade. 5. Não é verdade.
A seção seguinte contém três frases a respeito de crenças ou experiências religiosas. Por favor, anote o quanto cada frase se aplica a você.	
5) Eu me esforço muito para viver a minha religião em todos os aspectos da vida. 1. Totalmente verdade para mim. 2. Em geral é verdade. 3. Não estou certo. 4. Em geral não é verdade. 5. Não é verdade.	

Adapted from: Lucchetti G et al. Validation of the Duke Religion Index: DUREL (Portuguese version).²

Appendix 2 — Belief Into Action Scale (BIAC) - Portuguese version.^{3,4}

1) Por favor, circule a maior prioridade em sua vida agora? (mais valorizada, premiada) [marque apenas uma] 1. Minha saúde e independência. 2. Minha família. 3. Minhas amizades. 4. Emprego, carreira ou negócio. 5. Minha educação. 6. Segurança financeira. 7. Relacionamento com Deus. 8. Capacidade de viajar e ver o mundo. 9. Ouvir música e festejar. 10. Liberdade para viver como eu escolher.		
2) Com que frequência você participa de serviços religiosos? (circule um número abaixo) 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	3) Além de serviços religiosos, com que frequência você se reúne com outras pessoas por motivos religiosos (oração, discussões religiosas, trabalho voluntário etc.)? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	4) Até que ponto (em uma escala de 1 a 10) você decidiu colocar sua vida sob a direção de Deus? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.
5) Que porcentagem da sua renda bruta anual você doa para sua instituição religiosa ou para outras causas religiosas a cada ano? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	6) Em média, quanto tempo por dia (em 24 horas) você gasta ouvindo música religiosa ou rádio, ou assistindo TV religiosa? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	7) Em média, quanto tempo por dia você gasta lendo escrituras religiosas, livros ou outra literatura religiosa? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.
8) Em média, quanto tempo por dia você gasta em oração ou meditação privada? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	9) Em média, quanto tempo por dia você gasta como voluntário em sua comunidade religiosa ou pessoas por motivos religiosos? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.	10) Até que ponto (em uma escala de 1 a 10) você decidiu conformar sua vida aos ensinamentos de sua fé religiosa? 1. Nunca. 2. Raramente. 3. Poucas vezes/ano. 4. Menos de uma vez/mês. 5. Uma vez/mês. 6. Mais de uma vez/mês. 7. Quase toda semana. 8. Toda semana. 9. Mais de uma vez/semana. 10. Diariamente.

Adapted from: Koenig et al. Belief into action scale: A brief but comprehensive measure of religious commitment.²

Appendix 3 — Brief Religious Coping Scale (Brief RCOPE) - Portuguese version.^{6,7}

Itens da subescala de <i>coping</i> religioso positivo:		Itens da subescala de <i>coping</i> religioso negativo:	
1-	Procurei uma ligação maior com Deus.	1-	Fiquei imaginando se Deus tinha me abandonado.
2-	Procurei o amor e a proteção de Deus.	2-	Senti-me punido por Deus pela minha falta de fé.
3-	Busquei ajuda de Deus para livrar-me da minha raiva.	3-	Fiquei imaginando o que eu fiz para Deus me castigar.
4-	Tentei colocar meus planos em ação com a ajuda de Deus.	4-	Questionei o amor de Deus por mim.
5-	Tentei ver como Deus poderia me fortalecer nesta situação.	5-	Fiquei imaginando se meu grupo religioso tinha me abandonado.
6-	Pedi perdão pelos meus erros ou pecados.	6-	Cheguei à conclusão de que forças do mal atuaram para isso acontecer.
7-	Foquei na religião para parar de me preocupar com meus problemas.	7-	Questionei o poder de Deus.

Adapted from: Esperandio M et al. Brazilian Validation of the Brief Scale for Spiritual/Religious Coping.⁷

Appendix 4 — Brief Multimensional Measure of Religiousness/Spirituality (BMMRS-P) - Portuguese version.^{8,9}

A) EXPERIÊNCIAS ESPIRITUAIS DIÁRIAS – As seguintes questões lidam com as possíveis experiências espirituais. Com que frequência você tem as seguintes experiências:		
1) Sinto a presença de Deus: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.	2) Encontro força e conforto na minha religião: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.	3) Sinto profunda paz interior ou harmonia: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.
4) Desejo estar próximo ou em união com Deus: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.	5) Sinto o amor de Deus por mim, diretamente ou por meio de outros: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.	6) Sou espiritualmente tocado pela beleza da criação: 1. Muitas vezes ao dia. 2. Todos os dias. 3. A maior parte dos dias. 4. Alguns dias. 5. De vez em quando. 6. Nunca ou quase nunca.
B) VALORES/CRENÇAS		
7) Creio em um Deus que cuida de mim: 1. Concordo totalmente. 2. Concordo. 3. Discordo. 4. Discordo totalmente.	8) Sinto grande responsabilidade em reduzir a dor e o sofrimento no mundo: 1. Concordo totalmente. 2. Concordo. 3. Discordo. 4. Discordo totalmente.	
C) PERDÃO – Por causa de minhas crenças espirituais ou religiosas:		
9) Tenho perdoado a mim mesmo pelas coisas que tenho feito de errado: 1. Sempre ou quase sempre. 2. Frequentemente. 3. Raramente. 4. Nunca.	10) Tenho perdoado aqueles que me ofendem: 1. Sempre ou quase sempre. 2. Frequentemente. 3. Raramente. 4. Nunca.	11) Sei que Deus me perdoa: 1. Sempre ou quase sempre. 2. Frequentemente. 3. Raramente. 4. Nunca.
D) PRÁTICAS RELIGIOSAS PARTICULARES		
12) Com que frequência você reza (ora) intimamente em lugares que não sejam igreja ou templo religioso? 1. Mais de uma vez ao dia. 2. Uma vez ao dia. 3. Algumas vezes por semana. 4. Uma vez por semana. 5. Algumas vezes no mês. 6. Uma vez no mês. 7. Menos de uma vez ao mês. 8. Nunca.	13) De acordo com sua tradição religiosa/espiritual, com que frequência você medita (intimidade com Deus)? 1. Mais de uma vez ao dia. 2. Uma vez ao dia. 3. Algumas vezes por semana. 4. Uma vez por semana. 5. Algumas vezes no mês. 6. Uma vez no mês. 7. Menos de uma vez ao mês. 8. Nunca.	14) Com que frequência você assiste ou ouve programas religiosos na TV ou rádio? 1. Mais de uma vez ao dia. 2. Uma vez ao dia. 3. Algumas vezes por semana. 4. Uma vez por semana. 5. Algumas vezes no mês. 6. Uma vez no mês. 7. Menos de uma vez ao mês. 8. Nunca.
15) Com que frequência você lê a bíblia ou outra literatura religiosa (livros, jornais, revistas e folhetos)? 1. Mais de uma vez ao dia. 2. Uma vez ao dia. 3. Algumas vezes por semana. 4. Uma vez por semana. 5. Algumas vezes no mês. 6. Uma vez no mês. 7. Menos de uma vez ao mês. 8. Nunca.	16) Com que frequência são feitas orações ou agradecimentos antes ou após as refeições em sua casa? 1. Em todas as refeições. 2. Uma vez ao dia. 3. No mínimo uma vez por semana. 4. Apenas em ocasiões especiais. 5. Nunca.	

Continued...

Appendix 4 (Continued) — Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS-P) - Portuguese version.^{8,9}

E) SUPERAÇÃO RELIGIOSA E ESPIRITUAL - Pense a respeito do que você entende e como lida com os principais problemas de sua vida. Com que intensidade você se vê envolvido nessas maneiras de enfrentá-los?		
17) Penso que minha vida faz parte de uma força espiritual maior: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.	18) Trabalho em união com Deus: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.	19) Vejo Deus como força, suporte e guia: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.
20) Sinto que Deus me castiga por meus pecados ou falta de espiritualidade: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.	21) Eu me pergunto se Deus me abandonou: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.	22) Tento entender o problema e resolvê-lo sem confiar em Deus: 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.
23) O quanto sua religião está envolvida na compreensão e na maneira de lidar com situações estressantes (difíceis)? 1. Muito envolvida. 2. Pouco envolvida. 3. Não muito envolvida. 4. Nem um pouco envolvida.		
F) SUPORTE RELIGIOSO - Essas questões são destinadas a verificar o quanto de ajuda as pessoas de sua comunidade religiosa iriam lhe proporcionar, caso você precisasse no futuro.		
24) Se você estivesse doente, quantas pessoas de sua comunidade religiosa lhe ajudariam? 1. Muitas. 2. Algumas. 3. Poucas. 4. Nenhuma.	25) Quanto conforto as pessoas de sua comunidade religiosa lhe dariam se tivesse dificuldades? 1. Muito. 2. Algum. 3. Pouco. 4. Nenhum.	26) Com que frequência as pessoas de sua comunidade religiosa procuram por você? 1. Muito. 2. Bastante. 3. Um pouco. 4. Nada.
27) Com que frequência as pessoas de sua comunidade religiosa criticam você e as coisas que você faz? 1. Frequentemente. 2. Muitas vezes. 3. De vez em quando. 4. Nunca.		
G) HISTÓRIA RELIGIOSA/ESPIRITUAL		
28) Você já teve alguma experiência religiosa ou espiritual que mudou a sua vida? () Não. () Sim. Se SIM, qual era a sua idade quando essa experiência aconteceu?		
29) Você já teve alguma recompensa com a sua fé? () Não. () Sim. Se SIM, qual era a sua idade quando essa experiência aconteceu?		
30) Você já teve alguma perda significativa da sua fé? () Não. () Sim. Se SIM, qual era a sua idade quando essa experiência aconteceu?		
H) COMPROMETIMENTO		
31) Eu tento levar fortemente minhas crenças religiosas ao longo de minha vida. 1. Concordo totalmente. 2. Concordo. 3. Discordo. 4. Discordo totalmente.		
32) Durante o ano passado você contribuiu financeiramente para a comunidade religiosa ou para as causas religiosas? Contribuição semanal: Contribuição mensal: Contribuição anual:		
33) Em uma semana, quantas horas você dedica a atividades da sua igreja ou que você faz por razões religiosas/espirituais?		
I) RELIGIOSIDADE ORGANIZACIONAL		
34) Com que frequência você participa de serviços religiosos (rituais, missas, cultos, celebrações)? 1. Mais de uma vez por semana. 2. Toda a semana (semanal). 3. Uma ou duas vezes por mês. 4. Todo mês (mensal). 5. Uma ou duas vezes por ano. 6. Nunca.	35) Além serviços religiosos, com que frequência você faz parte de outras atividades igreja e templos religiosos? 1. Mais de uma vez por semana. 2. Toda a semana (semanal). 3. Uma ou duas vezes por mês. 4. Todo mês (mensal). 5. Uma ou duas vezes por ano. 6. Nunca.	
J) PREFERÊNCIA RELIGIOSA		
36) Qual é sua religião no momento? Se Evangélico, qual a denominação religiosa?		
K) AUTO-AVALIAÇÃO GLOBAL		
37) Até que ponto você se considera uma pessoa religiosa? 1. Muito religiosa. 2. Moderadamente religiosa. 3. Pouco religiosa. 4. Nem um pouco religiosa.		
38) Até que ponto você se considera uma pessoa espiritualizada? 1. Muito espiritualizada. 2. Moderadamente espiritualizada. 3. Pouco espiritualizada. 4. Nem um pouco espiritualizada.		

Adapted from: Curcio CSS et al. Validation of the portuguese version of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS-P) in clinical and non-clinical samples.⁹

Appendix 5 — Instrument WHOQOL-SRPB - Portuguese version.¹⁰⁻¹²

CONEXÃO A SER OU FORÇA ESPIRITUAL: 1. Até que ponto alguma ligação a um ser espiritual ajuda você a passar por épocas difíceis? 2. Até que ponto alguma ligação com um ser espiritual ajuda você a tolerar o estresse? 3. Até que ponto alguma ligação com um ser espiritual ajuda você a compreender os outros? 4. Até que ponto alguma ligação com um ser espiritual conforta/tranquiliza você?	FORÇA ESPIRITUAL: 1. Até que ponto você sente força espiritual interior? 2. Até que ponto você pode encontrar força espiritual em épocas difíceis? 3. Quanto a força espiritual o ajuda a viver melhor? 4. Até que ponto a sua força espiritual o ajuda a se sentir feliz na vida?
SENTIDO NA VIDA: 1. Até que ponto você encontra um sentido na vida? 2. Até que ponto cuidar de outras pessoas proporciona um sentido na vida para você? 3. Até que ponto você sente que a sua vida tem uma finalidade? 4. Até que ponto você sente que está aqui por um motivo?	PAZ INTERIOR: 1. Até que ponto você se sente em paz consigo mesmo? 2. Até que ponto você tem paz interior? 3. Quanto você consegue sentir paz quando você necessita disso? 4. Até que ponto você sente um senso de harmonia na sua vida?
ADMIRAÇÃO: 1. Até que ponto você consegue admirar as coisas a seu redor? (p. ex.: natureza, arte, música) 2. Até que ponto você se sente espiritualmente tocado pela beleza? 3. Até que ponto você tem sentimentos de inspiração (emoção) na sua vida? 4. Até que ponto você se sente agradecido por poder apreciar ("curtir") as coisas da natureza?	ESPERANÇA E OTIMISMO: 1. Quão esperançoso você se sente? 2. Até que ponto você está esperançoso com a sua vida? 3. Até que ponto ser otimista melhora a sua qualidade de vida? 4. Quanto você é capaz de permanecer otimista em épocas de incerteza?
TOTALIDADE E INTEGRAÇÃO: 1. Até que ponto você sente alguma ligação entre a sua mente, corpo e alma? 2. Quão satisfeito você está por ter um equilíbrio entre a mente, o corpo e a alma? 3. Até que ponto você sente que sua maneira de viver está de acordo com o que sente e pensa? 4. Quanto as suas crenças ajudam-no a criar uma coerência (harmonia) entre o que você faz, pensa e sente?	FÉ: 1. Até que ponto a fé contribui para o seu bem-estar? 2. Até que ponto a fé lhe dá conforto no dia a dia? 3. Até que ponto a fé lhe dá força no dia a dia? 4. Até que ponto a fé o ajuda a gozar (aproveitar) a vida?

Adapted from: Panzini et al. Validação Brasileira do Instrumento de Qualidade de Vida/Espiritualidade, Religião e Crenças Pessoais.¹²

Appendix 6 — FICA Questionnaire - Spiritual Assessment Tool - Portuguese version.^{13,14}

F: FÉ / CRENÇA • Você se considera religioso ou espiritualizado? • Você tem crenças espirituais ou religiosas que te ajudam a lidar com os problemas? • Se não: O que te dá significado na vida?
I: IMPORTÂNCIA OU INFLUÊNCIA • Que importância você dá para a fé ou crenças religiosas em sua vida? • A fé ou crenças já influenciaram você a lidar com estresses ou problema de saúde? • Você tem alguma crença específica que pode afetar decisões médicas ou o seu tratamento?
C: COMUNIDADE • Você faz parte de alguma comunidade religiosa ou espiritual? • Ela te dá suporte, como? • Existe algum grupo de pessoas que você "realmente" ama ou que seja importante para você? • Comunidades como igrejas, templos e grupos de apoio são fontes de suporte importante?
A: AÇÃO NO TRATAMENTO • Como você gostaria que o seu médico ou profissional da área de saúde considerasse a questão religiosidade/espiritualidade no seu tratamento? • Indique, remeta a algum líder espiritual/religioso.

Adapted from: Queiroz CM et al. Anamnese espiritual e relação médico-paciente: revisão e reconstrução de um instrumento cotidiano.¹⁴

Appendix 7 — HOPE Questionnaire - Portuguese version.^{14,15}**H: Fontes de Esperança (*hope*), significância, conforto, paz, força, amor e relacionamento social**

1. Quais são suas fontes de esperança, força, conforto e paz?
2. Ao que você se apegue em tempos difíceis?
3. O que o sustenta e o faz seguir adiante?

O: Religião organizada

1. Você faz parte de uma comunidade religiosa ou espiritual? Ela o ajuda? Como?
2. Em quais aspectos a religião o ajuda e em quais não o ajuda muito?

P: Espiritualidade pessoal e prática

1. Você tem alguma crença espiritual que é independente da sua religião organizada?
2. Quais aspectos de sua espiritualidade ou prática espiritual você acha que são mais úteis à sua personalidade?

E: Efeitos no tratamento médico e assuntos terminais

1. Ficar doente afetou a sua habilidade de fazer coisas que o ajudam espiritualmente?
2. Como médico, há algo que eu possa fazer para ajudar você a acessar os recursos que geralmente o apoiam?
3. Há alguma prática ou restrição que eu deveria saber sobre seu tratamento médico.

Adapted from: Queiroz CM et al. Anamnese espiritual e relação médico-paciente: revisão e reconstrução de um instrumento cotidiano.¹⁴

Appendix 8 — SPIRIT Questionnaire - Portuguese version.^{14,19}**S: SISTEMA de Crença Espiritual**

- Qual é sua afiliação religiosa?
- Nomeie ou descreva seu sistema de crença espiritual.

P: Espiritualidade PESSOAL

- Descreva as práticas/crenças do seu sistema de crença espiritual que você pessoalmente aceita.
- Descreva as crenças e práticas que você não aceita.
- O que a sua religião/espiritualidade significa para você?
- Qual a importância de sua religião ou espiritualidade no seu cotidiano?

I: INTEGRAÇÃO dentro de uma Comunidade Espiritual

- Você pertence a um grupo ou comunidade religiosa/espiritual?
- Qual o seu cargo ou papel?
- Que importância este grupo tem para você?
- É uma fonte de apoio? Em que sentido?
- Este grupo apoia ou o apoiaria em assuntos ligados a saúde?

R: RITUAIS de Práticas e Meditação

- Há práticas específicas que você segue como parte de sua religião/espiritualidade (p. ex.: orações)?
- Há práticas ou atividades no estilo de vida que sua religião encoraja/proíbe? Você aceita isso?
- Que significância tem essas práticas e restrições para você?
- Há outros elementos específicos de cuidados médicos que você recusa por motivos religiosos/ espirituais?

I: IMPLICAÇÕES no Cuidado Médico

- Que aspectos da sua religião/espiritualidade você gostaria que eu tivesse em mente ao cuidar de você?
- Você gostaria de discutir sobre implicações religiosas ou espirituais no cuidado de sua saúde?
- Que conhecimentos ou entendimentos fortaleceriam nossa relação como médico e paciente?
- Existe alguma barreira baseada em questões religiosas que prejudique nosso relacionamento?

T: Planejamento de Eventos TERMINAIS

- Como nós planejamos cuidar da sua saúde até o fim da vida, como a fé impactaria as suas decisões?
- Há particulares do tratamento que você gostaria de dispensar ou suspender por causa da sua fé?

Adapted from: Queiroz CM et al. Anamnese espiritual e relação médico-paciente: revisão e reconstrução de um instrumento cotidiano.¹⁴

Appendix 9 — CSI-MEMO Questionnaire- Portuguese version.^{14,19}

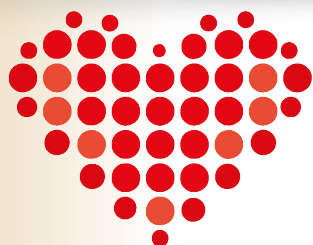
• Suas crenças religiosas / espirituais lhe dão conforto ou são fontes de estresse?
• Você possui algum tipo de crença espiritual que pode influenciar suas decisões médicas?
• Você é membro de alguma comunidade espiritual ou religiosa? Ela lhe ajuda de alguma forma?
• Você possui alguma outra necessidade espiritual que gostaria de conversar com alguém?

Adapted from: Queiroz CM et al. Anamnese espiritual e relação médico-paciente: revisão e reconstrução de um instrumento cotidiano.¹⁴

Appendix 10 — The FACT Spiritual History Tool - Portuguese version.¹⁸

F: Qual é sua FÉ ou crença? Você se considera espiritual ou religioso? Em que coisas você acredita que dão sentido e propósito à sua vida?
A: Você é ATIVO em sua comunidade religiosa? O suporte para sua fé está disponível para você? Você tem acesso ao que precisa para aplicar sua fé (ou suas crenças)?
C: Como sua fé ou práticas espirituais ajudam a lidar ou lhe trazem CONFORTO? Sua fé ou práticas espirituais levantam alguma preocupação ou potencial conflito com a tomada de decisões relacionadas ao seu tratamento médico?
T: Plano de TRATAMENTO 1. O paciente está lidando bem? a. Apoiar e encorajar. b. Reavaliar em uma data posterior. 2. O paciente está lidando mal? a. Dependendo do relacionamento e similaridade em fé/crenças, forneça intervenção direta: aconselhamento espiritual, oração, Sagrada Escritura etc. b. Incentive o paciente a abordar essas preocupações com seu próprio líder de fé. c. Faça um encaminhamento ao capelão do hospital (NÃO pergunte se o paciente quer encaminhamento — deixe o capelão fazer sua própria avaliação!).

Adapted from: Larocca-Pitts MA. FACT: taking a spiritual history in a clinical setting.¹⁸



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