



How Do Iranian Researchers Measure Spirituality in Health Studies? A Scoping Review

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Abstract

Background: Despite the existing literature on the effect of spirituality on health, lack of consensus on definition and evaluation methods are major barriers to applying the results of these studies. In this scoping review, we intend to identify the instruments used for evaluating spirituality in health in Iran and evaluate their domains.

Methods: We searched PubMed, Scopus and Web of Science, Islamic World Science Citation Center, Scientific Information Database, and Magiran between 1994 and 2020. We then identified the questionnaires and searched for the original article reporting the development or translation, as well as the psychometric evaluation process. We extracted data on their type (developed/translated), and other psychometric properties. Finally, we categorized the questionnaires accordingly.

Results: After selecting the studies and evaluating the questionnaires, we identified 33 questionnaires evaluating religiosity (10 questionnaires), spiritual health (8 questionnaires), spirituality (5 questionnaires), religious attitude (4 questionnaires), spiritual need (3 questionnaires) and spiritual coping (3 questionnaires). Other existing questionnaires had issues in the development or translation process or lacked reported psychometric evaluations.

Conclusion: Many questionnaires have been used in spiritual health studies in the Iranian population. These questionnaires cover different subscales according to their theoretical base and the developers' perspectives. Researchers should be informed about these aspects of the questionnaires and select the instruments meticulously based on the aim of their study and the characteristics of the questionnaires.

Keywords: Spirituality, Iran, Questionnaire, Religion

Conflicts of Interest: None declared

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Introduction

In recent decades, spiritual health has received increasing attention as an essential determinant of health and an important concept in human life that can shape human cognition and alter behaviors and decisions in personal and social aspects of human life and well-being (1). Despite the growing literature on the importance and dimensions of spiritual health (2), the experts have little consensus on the definitions and measurements in this field (3), which causes major barriers to applying the results of these studies or designing effective interventions (4).

Spirituality and spiritual health are defined according to various existing worldviews; thus, the measurement methods would inevitably be different and complicated. Cultural characteristics of a society are among the important determinants of spiritual needs and consequently affect the definition of spirituality and how it is understood by its members (5). Therefore, tools and instruments used in evaluating spirituality should be accordingly selected considering these characteristics, as highlighted by many researchers (6,

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↑What is “already known” in this topic:

The existing ambiguity in spiritual health studies is partly due to a lack of consensus on definition and evaluation methods.

→What this article adds:

Spirituality health researchers can improve the quality of their evidence by better selection of questionnaires considering the objectives and subscales of the questionnaire and considering the aims and theoretical basis of their study.

7). These instruments measure a collection of concepts relevant to spirituality to different degrees and are occasionally overlapping in subscales (8). Despite the existing instruments targeting different aspects of spirituality, many of them lack validity measures and are not able to provide a holistic perspective of patients' current spiritual state (9).

Spiritual health in the context of Iranian culture needs particular considerations regarding cultural, religious, and social aspects of the community (10). In Iran, some researchers have used instruments translated from other languages. However, there is also a long list of questionnaires developed to reflect the culture-specific aspects of spirituality in the Iranian community. Despite the availability of numerous questionnaires, selecting the appropriate one for the research projects is a very crucial step in designing spiritual health studies. Failing to select a valid and reliable questionnaire with necessary subscales can affect the validity and generalizability of the resulting evidence.

Considering the number of existing questionnaires used in the field of spiritual health in Iran, selecting the appropriate questionnaire can be a difficult and confusing task. In this study, we aim to provide an overview of the reliable and valid questionnaires used to evaluate spirituality in health in the Iranian population. We also discuss their subscales and main objective to help the researchers in choosing the most suitable questionnaire for their studies.

Methods

This scoping review was approved and supported by Iran University of Medical Sciences. The study was conducted based on the framework suggested by Arksey and O'Malley (11) and reported according to the guidelines of the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist (12).

Search method

We performed a comprehensive literature search for documents in national and international databases from January 1994 until December 2020. The time frame selection was according to the observed rise in the number of publications in the field of spirituality and spiritual health. The last search was run on February 2020. We investigated Islamic World Science Citation Center (ISC), Scientific Information Database (SID) and Magiran. We also conducted a literature search in PubMed, Scopus and Web of Science (WOS) without any language limits. We searched the reference lists of included articles and contacted renowned researchers in the field of spiritual health for other relevant questionnaires. The keywords used were "spiritual health" and "Iran", as well as similar terms and concepts such as "spirituality" or "religiosity" or "Persian" or "Iranian".

Eligibility criteria

Inclusion criteria: Eligible questionnaires were those that aimed to evaluate spirituality-related concepts in health-related studies. For the purpose of increased sensitivity, we included any article using a spirituality-related questionnaire in healthy or unhealthy populations.

Exclusion criteria: Studies evaluating spirituality with

few questions without validity or reliability evaluation, those with an unclear process of development, translation or psychometric evaluation (even after contacting the authors), questionnaires evaluating spiritual intelligence, workplace spirituality, spiritual quotidian and spiritual care as well as those not used in health-related studies or Iranian populations were excluded.

Review process

All of the selected titles and abstracts were evaluated by two independent researchers (LG and FS) for their relevance. The full text of any article approved by at least one of the researchers was provided for final screening. Multiple articles using the same questionnaire were considered redundant. We then identified the questionnaires and searched for the original document reporting the process of development or translation as well as psychometric evaluation.

In case the authors could not agree on the relevance of a questionnaire, a senior researcher was invited to comment. We applied a 13-item reliability and validity critical appraisal tool (13) to evaluate the articles and reports. Two authors separately completed the critical appraisal process for all primarily approved articles and they had a consensus on all cases. Articles with unacceptable validity and reliability process were removed from the list. We also excluded questionnaires presented with another name and those which evaluated spirituality-related concepts as a subscale in another questionnaire.

Finally, we extracted data regarding the instruments on their type (developed vs. translated), year of development or translation, number of questions, subscales, quality of development/adaptation process, quality of the psychometric evaluation, and objectives. If the data were missing in the literature, we contacted the authors for complementary information. Finally, data were summarized and charted in a table and references were added accordingly.

Results

We identified 1340 articles (822 English and 518 Persian) through a literature search, including articles, reports, thesis and other documents retrieved through database and citation search. After removing duplicates and performing primary screening, 355 English and 213 Persian documents were included for full-text evaluation. Upon detailed evaluation of the 568 documents, we identified 72 questionnaires. We then searched the literature for complementary documents on their development, reliability and validity. Finally, there were 33 questionnaires of which 15 were developed in Persian and 18 were translated and adapted from other languages. The process of selection is demonstrated in Figure 1.

These 33 questionnaires evaluated religiosity (10 questionnaires), spiritual health (8 questionnaires), spirituality (5 questionnaires), religious attitude (4 questionnaires), spiritual need (3 questionnaires) and coping (3 questionnaires), as demonstrated in Table 1. All of these questionnaires have been evaluated for their psychometric properties and have at least one high-quality document regarding their reliability and validity.

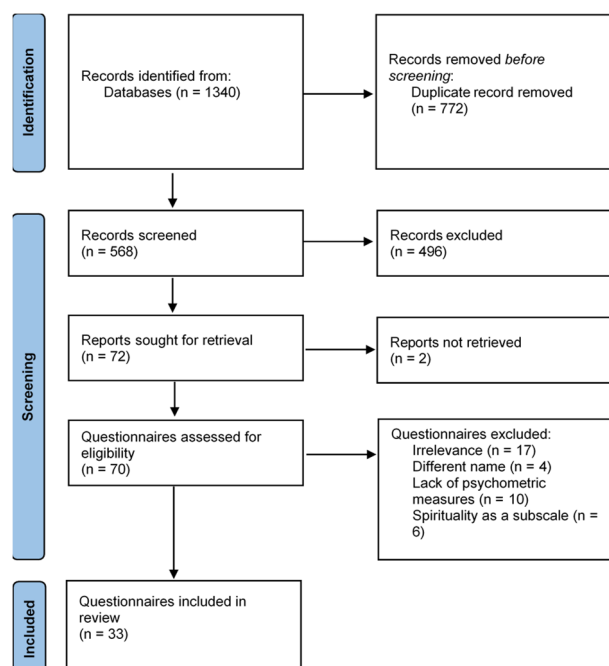


Figure 1. Flowchart of article selection

We identified eight questionnaires that aimed to evaluate spiritual health. These questionnaires include the Comprehensive Spiritual Health Questionnaire (10), Elder's Spiritual Health (24), Functional Assessment of Chronic Illness Therapy—Spiritual well-being scale (FACIT-Sp) (25), Islamic Spiritual Health Scale (ISHS) (26), Multidimensional Inventory for Religious Spiritual Well-being (27), Spiritual Well-Being Questionnaire (SWBQ) (1), Spiritual Well-Being Scale (SWBS) (1, 28) and Spiritual Health Questionnaire from the viewpoint of Islam (29). These questionnaires evaluate a variety of subscales including cognitive and emotional aspects of connection with God, surrounding entities and beliefs and sometimes even cover spiritual and religious practices. There are some questionnaires developed based on the Islamic viewpoint of Iranian culture and

values. Among these questionnaires, SWBS has been used more frequently in health studies.

In some studies, researchers have evaluated spirituality. There are five questionnaires that evaluate spirituality and have been frequently administered in spirituality health studies. Daily Spiritual Experience Scale (30), Parsian and Dunning's Spirituality Questionnaire (31), Spiritual Assessment Inventory (SAI) (32), Spirituality Perspective Scale (33), and Spiritual Attitude and Ability Questionnaire (34). They generally evaluate spiritual beliefs, behaviors, awareness and ability.

Due to the similarity and overlap of constructs, many researchers have used questionnaires that mainly evaluate religiosity in spiritual health studies. These questionnaires include Allport's religious orientation (14), Duke University Religion Index (DUREL) (15, 16), Religious Orientation (17), Muslim Religiosity Questionnaire (18), Muslim Religiosity Scale (MRS) (19), Religiosity Scale (18), Religious Self-regulation Questionnaire (20), Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (21), Religious Practice Scale (22) and Attitude Questionnaire to Prayer (23). The main subscales evaluated in these questionnaires are religious orientation and practice. Some of them are based on Muslim populations and many of them are directly developed for the Iranian population.

There are also other constructs that have been used in spiritual health studies. Some researchers have used questionnaires evaluating religious attitudes that mainly focus on worldviews, attitudes, values and beliefs. Others have used questionnaires evaluating spiritual needs or spiritual coping.

We also identified 6 questionnaires that considered spirituality as a subscale while evaluating other concepts such as quality of life, lifestyle, and health needs and evaluated spirituality using 2 to 9 questions, among other subscales (48-52). Other existing questionnaires had issues in the development or translation process or lacked reported psychometric evaluations.

Table 1. Specifications of spirituality measuring questionnaires in Iran

	Questionnaire	Type	Year	First Author	Items	Objective	Scales
1	Allport's religious orientation (14)	Translated	1998	Allport/ Janbozorgi	20	Religiosity	Extrinsic religious orientation Intrinsic religious orientation
2	Duke University Religion Index (DUREL) (15, 16)	Translated	1997/ 2010	Koenig /Sa- fari, Hafizi	5	Religiosity	Organizational religiosity Non-organizational religiosity
3	Religious orientation (17)	Developed	2004	Bahrami	64	Religiosity	Intrinsic religiosity Religious orientation Religious disorganization Religious pretentiousness
4	Muslim Religiosity questionnaire* (18)	Developed	2009	Serajzadeh	26	Religiosity	Hedonism Theological Ritual Experiential Consequential
5	Muslim Religiosity Scale (MRS) (19)	Translated	2014 /2016	Koenig/ Saf- fari	13	Religiosity	Religious practices Religious beliefs
6	Religiosity Scale (18)	Developed	2009	khodayari- Fard	113	Religiosity	Religious cognition Religious belief Religious emotion Obligation to religious duties
7	Religious Self-regulation Questionnaire (20)	Translated	1993/ 2006	Ryan/ Mazidi	12	Religiosity	Identified regulation Introjected regulation

Table 1. Continued

Questionnaire	Type	Year	First Author	Items	Objective	Scales
8 Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (21)	Translated	1997/2014	Plante/ Pakpour	10	Religiosity	Internal religiousness
9 Religious practice scale (22)	Developed	2000	Golzari	25	Religiosity	Religious practices Religious orientation in decision making
10 Attitude questionnaire to prayer (23)	Developed	2018	Nademi	22	Religiosity	Value of prayer Behavioral consequences of prayer Motivation for prayer
11 Comprehensive spiritual health questionnaire (10)	Developed	2015	Amiri	48	Spiritual health	Cognitive/emotional behavioral
12 Elder's Spiritual Health (24)	Developed	2018	Ajamzibad	38	Spiritual health	Spiritual belief Centricity of God Altruism Spiritual conduct Purposefulness of life
13 functional assessment of chronic illness therapy—Spiritual well-being scale (FACIT-Sp) (25)	Translated	2002/2013	Peterman/ Jafari	12	Spiritual health	peace Meaning Faith
14 Islamic spiritual health scale (ISHS) (26)	Developed	2017	Khorashadzadeh	61	Spiritual health	love to creator Duty-based life Religious rationality Psychological balance Attention to afterlife
15 Multidimensional Inventory for Religious Spiritual well-being (27)	Translated	2010/2011	Unterrainer / Alilu	48	Spiritual health	Forgiveness Hope Immanent Experiences of Sense and Meaning General Religiosity Connectedness Hope transcendent
16 Spiritual Well-Being Questionnaire (SWBQ) (1)	Translated	2005/2018	Gomwz, Abhari	20	Spiritual health	Personal Communal Environmental Transcendental
17 Spiritual Well-Being Scale (SWBS) (1, 28)	Translated	1982/2013, 2018	Paloutzian/ Abhari, Ghaf-fari	20	Spiritual health	Existential well-being Religious well-being
18 Spiritual health questionnaire from the viewpoint of Islam (29)	developed	2016	Sayehmiri	20	Spiritual health	Beliefs Mentality Morals Lifestyle Spirituality
19 Daily Spiritual Experience Scale (30)	Translated	2002/2017	Underwood/ Saffari	16	Spirituality	
20 Parsian and Dunning's spirituality questionnaire (31)	Translated	2009/2015	Parsian /Aminayi	29	Spirituality	Self-awareness Importance of spiritual beliefs Spiritual practices Spiritual need
21 Spiritual Assessment Inventory (SAI) (32)	Translated	1996 /2016	Hall/Esmacilinasab	45	Spirituality	Awareness Realistic acceptance Disappointment Grandiosity Instability Impression management
22 Spirituality Perspective Scale (33)	Translated	1987/2010	Reed / Rohani	10	Spirituality	Spiritual belief Spiritual behavior
23 Spiritual attitude and ability questionnaire (34)	developed	2012	Shahidi	43	Spirituality	Spiritual outlook Spiritual ability

Discussion

Spiritual health is an aspect of health that has been receiving increasing attention in recent decades. To provide a holistic approach to human health, spiritual health needs to be addressed in evaluations and interventions (53). Yet, more evidence is needed to achieve consensus on concepts, measurements and interventions (54).

In this study, we identified the questionnaires Iranian researchers have used for evaluating spirituality in their health-related research. An overview of the questionnaires used in spirituality in health studies in Iran reveals that they evaluate a variety of core topics, such as religiosity, spirituality, spiritual need, religious attitude, etc., which we have labeled as objective in Table 1. In other words, although they are applied for evaluating spirituality in health, they

Table 1. Continued

	Questionnaire	Type	Year	First Author	Items	Objective	Scales
24	Islamic religious attitudes (35)	developed	2017	Abolghasem-Gorji	25	Religious attitude	Learning and reading of the Quran Remembrance of Allah Belief in afterlife Attitude to religion and religious rituals Honesty, rectitude, hope and optimism Attitude to devotion and praying and attendance at mosques and other holy places
25	Muslim Attitudes toward Religion Scale (MARS) (36)	Translated	1997 /2000	Wilde/ Ghorbani	14	Religious attitude	Personal help Muslim Practices Muslim Worldview Religious attitude
26	Religious Attitude Questionnaire (37)	developed	1975	Golriz	25	Religious attitude	Religious attitude
27	Religious attitude (38)	developed	2000	khodayari	52	Religious attitude	Religious practice Morals and values Life and behavior Social aspects Worldview and beliefs Religion and science
28	Hospitalized patients Spiritual need questionnaire (39)	developed	2020	Hosseini	43	Spiritual need	Interconnection with people Relationship with God Transcendence Peaceful environment Meaning and purpose love and belonging Hope, peace, and gratitude Religion and divine guidance Death concerns and resolution Appreciation of art and beauty Morality
29	Spiritual need survey (40)	Translated	2005/ 2017	Galek/ Forouzi	29	Spiritual need	Religious needs Inner peace Existentialistic needs Actively giving Religious Practice Negative Feelings toward God Benevolent Reappraisal Passive religious coping strategies Active religious coping strategies
30	Spiritual Needs Questionnaire (SpNQ) (41-44)	Translated	2010/ 2017	Büssing/ Taheri-Kharameh	19	Spiritual need	Religious coping Non-religious coping
31	Iranian Religious Coping Scale (45)	developed	2016	Khodaveirdyzadeh	22	Spiritual coping	Positive religious coping Negative religious coping
32	spiritual coping strategies (SCS) (46)	Translated	2003 /2014	Baldacchino/ Saffari	20	Spiritual coping	Religious coping Non-religious coping
33	Brief Religious Coping scale (Brief RCOPE) (33, 47)	Translated	2011 /2017	Pargament/ Rohani, Mohammadzadeh	14	Spiritual coping	Positive religious coping Negative religious coping

are sometimes evaluating different concepts and constructs. This issue has also been present in studies from different parts of the world to some extent (55). Religiosity is the most used construct due to the closely related concepts and definitions in Iranian culture as well as many other cultures (56).

There are also both similar and different subdomains between instruments evaluating the same core topic. Instruments evaluating religiosity contain external religious aspects and symbols, as introduced in Allport's questionnaire as extrinsic religious orientation. These groups target reli-

gious symbols satisfying needs such as security and position. The same concept is labeled as organizational religiosity in Duke University Religion Index (DUREL), Identified regulation in Religious Self-regulation Questionnaire, ritual in Muslim Religiosity questionnaire, religious practices in Muslim Religiosity Scale and Religious practice scale, Muslim Practices in Muslim Attitudes toward Religion Scale and Religious Practice in Iranian Religious Coping Scale. This popularity roots in the concept of religion, as a common belief among the followers with certain practices and rituals. Another frequently evaluated concept is related to beliefs and cognitive aspects of religion. This

concept has been repeated in all instruments with names including intrinsic religious orientation, intrinsic religiosity, theological, religious beliefs, religious belief and internal religiousness.

It should be noted that cultural elements may influence the applicability of the translated questionnaires profoundly and should receive detailed attention, especially when there are noticeable cultural differences between the two communities (57). There are also some examples of inappropriate adaptations or psychometric evaluations process, which could discourage the researchers from using those questionnaires. The acceptability of the questionnaire would also be affected by the wording and number of questions and the reference population of the questionnaire in the original evaluations. Many instruments are used despite their undocumented development, translation or psychometric evaluation process. On the other hand, there are meticulously designed and evaluated instruments that have not received popularity from researchers and are not used frequently in research projects.

In contrast to instruments evaluating religiosity, spirituality questionnaires evaluate a wider and more heterogeneous range of domains. This results from the fact that, unlike religiosity, spirituality is a vaguely described concept with little conceptual clarity. These domains share the transcendence from self, and seeking to find meaning and purpose beyond worldliness (58). Based on the theoretical background, these domains include peace, hope, forgiveness, gratitude and other similar scales. Although common domains are less present in spirituality questionnaires, some of them share items regarding connection to God and the supreme being that are also present in religiosity questionnaires as centrality of God, love for the creator, and relationship with God.

The majority of limitations and inconsistencies in spiritual health studies root in the complications in the definition and scope of spirituality. Spirituality is a complex vaguely defined concept which is affected by personal, social and cultural aspects of individuals and the community. The concept is also closely interrelated with religiosity and the two are frequently used interchangeably despite essential differences. Although the two topics are closely converging in some aspects, their differences should be noticed when they are applied. Religiosity is generally defined as a sense of commitment to ethical values, beliefs and rituals and regular adherence to practices and behaviors defined in connection to a superior power on the individual or community level. On the other hand, spirituality is regarded as an intrinsic experience and states people go through in their quest for life purpose and their efforts in defining how they relate to themselves, others, nature and a superior power (8). In other words, religiosity is the extrinsic manifestation of beliefs and practiced rituals, while spirituality is the intrinsic experience (59). The degree these two concepts overlap in instruments designed for evaluating spiritual health is affected by the cultural characteristics of the community and the researcher's worldview (60). In the Iranian community, the two concepts are highly correlated, which is also reflected in spirituality questionnaires. Most of the developed

questionnaires include religiosity questions aiming to evaluate Islamic spirituality.

There are also related concepts frequently observed in the literature. For instance, spirituality and spiritual health share faith, connectedness, transcendence, and purposefulness, while only spiritual health focuses on the balance among the health aspects. Spiritual well-being is another relevant concept that is considered the expression of spiritual health and is frequently used in spiritual health studies (3). Spiritual coping has also been applied to highlight cognitive and behavioral efforts people make to maintain purpose, meaning and connectedness in difficult situations (61). Researchers should be careful about the differences existing in these related concepts when selecting instruments and interpreting the findings.

Experts have investigated religiosity instruments in Iran, highlighting some methodological weaknesses. In many studies, validity has not been evaluated appropriately or adequately, which considering the multidimensional and complex nature of the topic, results in serious consequences in applying the instrument and reporting the findings (62). Reliability has also been ignored in some cases, as it has been observed in other studies in social and health science (63). Previous studies have also emphasized on lack of validity studies in the majority of instruments evaluating spirituality (64).

Among the popular questionnaires, the Spiritual well-being scale has been more frequently used in Iranian studies. The questionnaire was developed by Paloutzian and Ellison in 1982 (65) and has been translated into different languages. The good construct and content validity of the questionnaire, easy-to-understand questions and simple scoring have made it a popular instrument in different languages and cultures (66). Despite the general applicability of the questionnaire, it is not intended to evaluate religiosity, which is highly correlated with spirituality, particularly in Iranian culture. Apart from that, there are some aspects of spirituality that are not addressed in this questionnaire and may highlight the need for a more culturally-tailored questionnaire for the Iranian population.

Some researchers prefer to develop spirituality-related questionnaires to reflect their worldviews instead of searching for an existing reliable and valid questionnaire that would match their aim. Thus, there are various questionnaires with some differences in scales and items that make the comparison between the studies difficult. There are many questionnaires that have been rarely used in studies and they seem they are developed to help the authors tackle the ambiguity of the concept rather than actual measurements in research. As a result, there is an overwhelming number of questionnaires that add complexity to selection, evaluation and comparison in spiritual health studies.

Limitation

While performing this study, we faced several limitations. In some cases, it was not possible for the researchers to access the original report of the design, translation or psychometric evaluation of some instruments despite huge efforts. Lack of valid author address and contact infor-

mation, inconsistent naming of the questionnaires and unpublished, original reports are among the reasons that made it difficult to provide necessary complementary information on the development and psychometric evaluation process. According to the original review protocols, if adequate information could not be retrieved despite all efforts, the instrument had to be excluded.

The research team had disagreements on the relevance of some questionnaires that were finally decided based on expert opinion.

Conclusion

Overall, the researchers have used various questionnaires for evaluating spirituality and related concepts in health studies. In many cases, these questionnaires had overlapping subscales and there was not enough variation in concepts and scales to justify the development of new questionnaires. The researchers could improve the quality of their studies by providing detailed information on the development or translation process as well as the evaluation of the psychometric properties of the instruments. To provide more accurate and trustworthy evidence, researchers should select the instruments meticulously according to the aim of their study and the characteristics of the questionnaires and provide the necessary information about the instrument they have used.

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Conflict of Interests

The authors declare that they have no competing interests.

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