




Spirituality as a sociocultural determinant of health in the context of medical curriculum: A call for action

Ruohollah Seddigh¹, Somayeh Azarnik¹, Nadereh Memaryan^{1,2}, Fatemeh Hadi*³ 

(ORCID:)

Received: 24 Apr 2018

Published: 17 Feb 2020

Abstract

Background: This study aimed to investigate the state of spirituality in the general medicine curricula in Iran.

Methods: Reference books for general medicine were reviewed and data were analyzed according to the qualitative content analysis method.

Results: After reviewing references, it was found that only 35 paragraphs of the educational reference pages dealt with this subject. Related topics to spirituality had 2 major themes: (a) spirituality and care (assessment, treatment, palliative care, and bereavement); (b) spirituality and professionalism (considering culture and medical ethics).

Conclusion: This study showed that despite the importance of the subject and much evidence on spirituality and medicine, medical references have limitations. The authors suggested some strategies to develop a specific course and integrate all educational references with the objectives of the general medical education course in Iran.

Keywords: Spiritual needs, Spiritual health, Medical curriculum, Sociocultural determinant of health, Iran

Conflicts of Interest: None declared

Funding: None

*This work has been published under CC BY-NC-SA 1.0 license.

Copyright© Iran University of Medical Sciences

Cite this article as: Seddigh R, Azarnik S, Memaryan N, Hadi F. Spirituality as a sociocultural determinant of health in the context of medical curriculum: A call for action. *Med J Islam Repub Iran.* 2020 (17 Feb);34.6. <https://doi.org/10.47176/mjiri.34.6>

Introduction

Considering the importance of holistic patient care, attention to the holistic needs of patients, including their spiritual needs, is constantly growing. Many patients highlight their need for spirituality during medical care (1, 2). Following the increasing attention to all patient needs (3) and considering spirituality as a potent sociocultural determinant of health (4), integrative medicine has emerged as a technique that addresses and deals with all aspects of patients' life (5). Iranian traditional medicine also attended to spiritual aspects of humans (6). There are different views

on the concepts of religion and spirituality. For instance, while some consider them as 2 different concepts (3), others believe that religion can be defined under the concept of spirituality (7). Yet, a preponderance of evidence suggests that religion or spirituality affects patients' health. Many patients state their need for spirituality when facing with health issues (1, 2) and use religious beliefs to cope with their illness (8). According to previous research, providing spiritual services positively affects patients'

Corresponding author: Dr Fatemeh Hadi, hadi.f@iums.ac.ir

1. Spiritual Health Research Center, Iran University of Medical Sciences, Tehran, Iran
2. Mental Health Department, School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences, Tehran, Iran
3. Mental Health Research Center, Department of Psychiatry, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

↑What is "already known" in this topic:

Spirituality as a sociocultural determinant of health to cope with stress in patients and health care professionals is highly important. Also, providing spiritual services positively affects patients' quality of life, improves treatment outcomes, and increases adherence to treatment.

→What this article adds:

Based on extensive literature in this field, the Iranian general medical curricula lack spiritual and health contents. In this study, the evidence for the integration of spirituality and health course in medical education was reviewed and some solutions were presented.

quality of life (9), improves treatment outcomes, and increases adherence to treatment (3). Taking spiritual history, especially during end-of-life care, and offering appropriate spiritual advices is critical to effective patient care (10). Patients should be able to discuss their spiritual matters with their doctors and the doctors should listen to them with a respectful and caring approach (11). History-taking and patient examination are the first steps to provide spiritual care (6). Since physicians should be educated about patients' spiritual needs, 90% of US medical universities provide courses on spirituality and health (12). Also, growing interest in related specialized courses is seen in other countries such as Brazil (13) and England (14).

Therefore, this study evaluated the educational references in the general medical curriculum in Iran to determine the current status of spiritual health and to plan necessary measures for the future.

Methods

The present exploratory-descriptive study aimed to examine the spirituality-related educational content of internship and externship courses in medical universities of Iran in 2016. To this end, references for the clinical period of general medicine were obtained from the Education Deputy of the Ministry of Health and Medical Education (15). In cases of Persian reference books written by Iranian faculty members, the most important English reference used during the residency period in the same field was also evaluated. Thus, the main specialized references for residency courses (used for specialized board and promotion exams) were also added to the initial reference list (Table 1). Only 3 types of references were not included: first, psychiatry, which was extracted from this paper, because it was published in a separate paper; second, the medical ethics reference (since the course in medical ethics is optional and thus no related classes are held); and third, Biostatistics and research methods, Pathology, Radiology, and Pharmacology (It was not reasonable to find any related contents in these references, and after searching, there was nothing about spirituality; thus, they were excluded.).

Searchable electronic files of the references were collected and searched using the following keywords: religious, spiritual health, spiritual, and spirit. The paragraphs and tables of each book were individually reviewed by all 4 researchers. First, they read the text to familiarize with the content; then, they reread it several times to extract the main theme. In the next stage, a number of codes were selected to describe each paragraph. In cases of similarity, the same code was used in later paragraphs. New codes were selected whenever a new theme emerged. However, the themes were not categorized at this stage and the aim was only to generate an identity for the paragraphs. Data were analyzed using the qualitative content analysis method described by Granheim and Lundman in 2004 (16).

Afterwards, a meeting with all 4 researchers was held and each paragraph was reviewed and analyzed again. The best code for each paragraph was then selected through consensus. Moreover, to increase homogeneity in the reading of the paragraphs, a group of 10 paragraphs was first read and assessed. Then, a joint meeting was held after reviewing all 35 paragraphs.

Induction was finally used to categorize the obtained codes into 2 categories and 8 subcategories based on their similarities and differences. Afterwards, in a joint meeting, 2 of the authors (both psychologists and university faculty members) matched the 2 categories with all paragraphs extracted from the references by answering the following questions: "Can this paragraph, with this particular code, be assigned to this category?" and "Does this category best describe the theme cited in this paragraph?" Cases of disagreement were resolved through consensus in meetings with all members of the research team, which ensured the credibility of the study. In addition, due to lack of access to the authors of these paragraphs and to determine the exact main theme intended by each paragraph, the above-mentioned pilot study and detailed group discussions were used to obtain external validity and to confirm ability and prevent bias, which ensured the trustworthiness of the study.

Table 1. References for the clinical period of general medicine

Raw	Course	Reference	Publication year	Number of e-book pages	Number of paragraphs on spirituality
1	Internal medicine	Cecil Essentials of Medicine (40)	2010	1313	7
		Harrison's Principles of Internal Medicine (41)	2012	3983	14
2	Pediatrics	Nelson Essential of Pediatrics (42)	2015	704	7
3	Gynecology	Danforth Obstetrics and Gynecology (43)	2008	586	0
4	Orthopedics	Textbook of orthopedics & fractures (44)	2010	591	0
		Campbell's Operative Orthopedics (45)	2012	5043	0
5	Urology	General Urology (46)	2010	500	0
		Campbell-Walsh Urology (47)		1356	0
6	Ophthalmology	General Ophthalmology (48)	2011	400	0
		Basic and clinical science course (49)	2015	3950	0
7	Ear, throat and nose	Otorhinolaryngology, Head & Neck Surgery (50)	2010	738	0
8	Neurology	Clinical Neurology(51)	2009	400	0
9	Infectious diseases	Harrison's Principles of Internal Medicine (41)	2012	1500	0
10	Dermatology	Skin diseases textbook (52)	2014	1858	0
		Lever's Histopathology of the Skin (53)	2009	1408	0
11	Surgery	Schwartz Principles of Surgery (54)	2014	2095	7
		Total		26389	35

Results

Generally, after reviewing reference books used during the clinical courses of general medicine, only 35 spirituality-related paragraphs were found. All these paragraphs were extracted from 4 references, and not a single line about the subject of spirituality was found in the remaining references.

The following categories and subcategories emerged (Table 2):

1. Spirituality and care

In this category, the use of spiritual care in various courses of disease was emphasized, which consisted of the following subcategories:

1.1. Spirituality and palliative care

In this context, spiritual care was considered as a part of holistic care for patients with chronic diseases, especially cancer. For instance, Cecil Essentials of Medicine indicates that,

"Palliative aspects of treating cancer address not only physical symptoms, in particular pain syndromes, but also psychosocial and spiritual concerns."

In another part, the same book regards attention to the spiritual needs of patients, especially terminally ill patients, as a critical part of palliative care:

"These 4 trajectories have major implications for palliative care and health care delivery. Patients and families have different physical, psychological, social, and spiritual needs depending on the trajectory of their illness before they die."

Harrison's Principles of Internal Medicine considers physicians to be responsible for the spiritual support of patients with serious diseases:

"The physician should provide or arrange for emotional, physical, and spiritual support and must be compassionate, unhurried, and open."

Also, it justifies the significance of the issue by the following sentence:

"Nearly 70% of patients' report becoming more religious or spiritual when they became terminally ill, and many find comfort in religious or spiritual practices such as prayer."

And recommends that,

"Physicians and other members of the care team should be able at least detect spiritual and existential needs."

The book finally underlines this as an ethical duty of a physician. Schwartz's Principles of Surgery highlights the same points and uses the World Health Organization's definition of palliative care when discussing the significance of spirituality in palliative medicine.

1.2. Spirituality as a source of distress

In this category, patients' spiritual concerns were identified as a source of distress. Cecil Essentials of Medicine advises therapists to ask the patient:

"In what ways are you suffering the most?" and follow with more domain-related screening questions about physical, psychological, spiritual, social aspects."

Some reference books underline the importance of spirituality as a source of spiritual and existential distress and recommend therapists to pay greater attention to this type of suffering. Cecil Essentials of Medicine states that,

"Spiritual and existential distress is prevalent in patients and families with serious illness, especially at the end of life. Spirituality is about one's relationship with and responses to transcendent questions that confront one as a human being (eg, search for meaning and purpose in life). One of the goals of palliative care is to relieve spiritual and existential distress."

Likewise, Schwartz's Principles of Surgery argues that, "Total pain is the sum total of 4 principal domains of pain: physical, psychological, social or socioeconomic, and spiritual. Each of these contributes to, but is not synonymous with, suffering."

1.3. Spiritual counseling as a part of treatment

Some of the studied reference books covered issues related to patients' need for spiritual counseling (from persons such as clerics and priests). According to Cecil Essentials of Medicine,

"Responding to such a request should first include intensification of potentially reversible contributions to suffering. This will often include treating physical and psychological symptoms, aggressive attempts to foster hope, consulting psychiatrists or spiritual counselors."

Harrison's Principles of Internal Medicine recommends a team approach while attending to the spiritual needs of patients,

"Central to this type of care is an interdisciplinary team approach that typically encompasses pain and symptom management, spiritual and psychological care."

1.4. Spirituality and bereavement

The reviewed references also pointed out the importance of providing spiritual support for the relatives of terminally ill patients so that they can properly get through the stages of bereavement. Harrison's Principles of Internal Medicine discusses that,

"Central to this type of care is an interdisciplinary team approach that typically encompasses pain and symptom management, spiritual and psychological care for the patient, and support for family caregivers during the patient's

Table 2. Content analysis of reference books taught during the clinical courses of general medicine in terms of attention to spirituality

Main categories	Subcategories
1. Spirituality and care	1.1. Spirituality and palliative care 1.2. Spirituality as a source of distress 1.3. Spiritual counseling as a part of treatment 1.4. Spirituality and bereavement 1.5. Spirituality as a part of the initial assessment of care
2. Spirituality and professionalism	2.1. Spirituality, culture, and medicine 2.2. Spirituality and culture as an underlying pathological factor 2.3. Spirituality and medical ethics

illness and the bereavement period."

The concept of bereavement and its importance has been explained in Nelson Textbook of Pediatrics where bereavement is defined as follows:

"Bereavement refers to the process of psychological and spiritual accommodation to death on the part of the child and the child's family."

The same reference book indicates that physicians' knowledge of patients and their relatives' beliefs about death and bereavement contributes to the development of a better therapeutic intervention,

"Understanding the family's religious/spiritual or cultural beliefs and values about death and dying can help the pediatrician work with the family to integrate these beliefs, values, and practices into the palliative care plan."

1.5. Spirituality as a part of the initial assessment of care

To provide more holistic care, reference books advise health care professionals to consider all 4 domains of patients' needs. Therefore, patient examination and comprehensive history-taking have been recommended. Harrison's Principles of Internal Medicine argues that the following 4 domains should at least be assessed:

"Palliative and end-of-life care is a focus on 4 broad domains: (1) physical symptoms; (2) psychological symptoms; (3) social needs that include interpersonal relationships, caregiving, and economic concerns; and (4) existential or spiritual needs."

The administration of standardized questionnaires is recommended for increasing the accuracy of preliminary assessments:

"Assessment instruments for cancer alone. Further research on and validation of these assessment tools, especially taking into account patient perspectives, could improve their effectiveness. Instruments with good psychometric properties that assess a wide range of symptoms include the Memorial Symptom Assessment Scale (MSAS), the Rotterdam Symptom Checklist, the Worthing Chemotherapy Questionnaire, and the Computerized Symptom Assessment Instrument."

Likewise, Schwartz's Principles of Surgery emphasizes the necessity of using standardized questionnaires for designing a more appropriate therapeutic program:

"It is commonly used in palliative care to roughly assess patient anticipated needs as well as prognosis. The Misoula-Vitas Quality of Life Index is a 25-question scale specifically for palliative care and hospice patients that scores symptoms, function, interpersonal relationships, and well-being."

Moreover, since some patients lose their spiritual beliefs during the course of a life-threatening illness, initial assessments are particularly important in the design of spiritual cares. According to Harrison's Principles of Internal Medicine:

"However, ~20% of terminally ill patients become less religious, frequently feeling cheated or betrayed by becoming terminally ill."

Therefore, since providing a particular patient with spiritual care may disrupt the holistic nature of care and affect the treatment-illness relationship, adequate assessments should be performed before providing patients with health

care services.

2. Spirituality and professionalism

This category highlighted spirituality as an essential part of medical profession and professional ethics. It comprises of the following subcategories:

2.1. Spirituality, culture, and medicine

Nelson Textbook of Pediatrics addresses the importance of spirituality as a cultural component in the conceptualization of the causes and courses of diseases. It also emphasizes the effects of spirituality on patient-physician relationships and acceptance of treatment. The book indicates that cultural aspects of patients and their families should be considered in the planning of a precise course of treatment and regarded as pediatricians' professional need when treating any kind of diseases,

"Addressing concepts and beliefs about how one interacts with health professionals as well as the family's spiritual and religious approach to health and health care from a cultural perspective allows the pediatrician, patient, and family to incorporate differences in perspectives, values, or beliefs into the care plan."

2.2. Spirituality and culture

When discussing underlying pathological factors, Nelson Textbook of Pediatrics subtly draws attention to differences in cultural beliefs that can lead to child abuse. It argues that a pediatrician should be aware of these problems report them to legal authorities whenever necessary,

"Significant conflicts may arise because religious or cultural practices may lead to the possibility of child abuse and neglect. In this circumstance, the pediatrician is required by law to report the suspected child abuse and neglect to the appropriate social service authorities."

With regards to noticing these problems as professionalism and recommending greater attention to such issues,

"ACGME Outcome Project have called for increasing attention to professionalism in the practice of medicine and in the education of physicians."

2.3. Spirituality and medical ethics

Nelson Textbook of Pediatrics states that the case of a terminally ill child can cause ethical dilemmas in autonomy, beneficence (doing good) and maleficence (doing no harm). Such dilemmas can become highly complex without the proper assessment of the cultural beliefs of patients' relatives.

"Before speaking with a child about death, the caregiver should assess the child's age, experience, and level of development; the child's understanding and involvement in end-of-life decision-making; the parents' emotional acceptance of death; their coping strategies; and their philosophical, spiritual, and cultural views of death."

According to Schwartz's Principles of Surgery, before deciding to terminate treatment for a terminally ill patient, surgeons must consider the patient's cultural and spiritual beliefs and symbolic meanings of therapeutic services. Spiritual or ethical consultation should also be sought whenever necessary,

"Some important principles to consider when considering withdrawal of life-sustaining therapy are as follow: (a) Any

and all treatments can be withdrawn. If circumstances justify withdrawal of one therapy, they may also justify withdrawal of others; (b) be aware of the symbolic value of continuing some therapies (eg, nutrition and hydration) even though their role in palliation is questionable; (c) before withdrawing life-sustaining therapy, ask the patient and family if a spiritual advisor (eg, pastor, imam, rabbi, or priest) should be called; and (d) consider requesting an ethics consult."

Discussion

According to the obtained results, there is scarce content about the spirituality in the general medical education in Iran and it was not surprising but we wanted to show the importance of the issue; there are similar findings in other countries for general medicine curriculum, so they design some special training courses for spirituality and health (12-14, 17).

The question is why no attention is paid to spirituality in the world's medical education references, while its importance in providing medical services has been highlighted by the patients, their families, and health care providers (11, 18-21). Other important questions arise as a result: Is it not necessary for specialized educational references to contain spirituality-related content to emphasize the importance of this subject? Will secondary curricula be able to make up for this shortcoming? How can the students realize the significance of spirituality when the main references fail to include a single line on the subject?

Some studies have specifically addressed spiritual and religious beliefs of university researchers and shown that more than 60% do not believe in this subject albeit its religious or nonreligious concept (22), which is indicative of the secular atmosphere among American researchers, and some studies have referred to the cause of such an atmosphere (23). Therefore, poverty of this subject in educational content cannot be explained by the number of secular researchers.

Another explanation for the gap between the large amounts of research into spirituality and medicine and their presence in reliable medical references may be weakness of studies in conceptualization of this subject that has not been able to convince editors of scientific references. In confirming this hypothesis, studies have shown that there is no consensus on the concept of spirituality in studies (24), and as a result of this confusion, measuring this concept and related structures has many problems. Therefore, designing an appropriate intervention in the absence of a standard criterion will be scientifically problematic (25). This can explain why this subject has not been seriously considered by the strict researchers and editors of medical references.

As there are the paucity of spirituality contents in the medical references in Iran and extensive evidence for positive effects of spirituality in all areas of the health, we suggest integration of a special course about spirituality and health in general medicine curricula. Here, we discuss the importance of this course in 4 levels: (1) Effects on the disease courses and outcomes, (2) patient's need and preferences to discuss spirituality with their health care providers, (3) physicians' knowledge about spirituality and its effects

on health and clinical applications, (4) effects on patients-doctors relationship.

1) Effects on the disease courses and outcomes

Whenever mankind faces a major challenge in life, questions about meaning and purpose of life will arise; therefore, when illness-as a big struggle- emerge, people will meet spiritual needs for explaining pain and sorrow to themselves and for coping with physical pain and disability (26).

Patients with chronic illnesses, such as cancer, AIDS, and heart failure, involve themselves to spirituality to improve their quality of life (27, 28). Studies have shown that spirituality has positive effects on the palliative care program and terminal care in patients with end-stage renal disease and their families (29). Also, patients with chronic pain used to practice spirituality to cope with pain; thus, if physicians know more about these copings details, they can manage the pain better (30). Studies show that religious interventions can improve the course of septicemia and decrease fever in septic patients, affect the activity of rheumatoid illnesses, decrease the adverse consequence of heart disease, reduce illness anxiety, and improve IVF outcomes (31). In addition, patients with diabetes who have spiritual beliefs and practice, perform better diabetes self-management (32).

2) Patient's need and preferences to discuss spirituality with their health care providers

Patients prefer to discuss spiritual needs and issues with their physician, especially when the illness is severe and they are admitted in the hospital (33, 34). Doctors should try to connect with patients and have a conversation about spirituality (21).

3) Effects on patients-doctors relationship

Studies demonstrate that openness to spirituality is related to the empathy in the patient-doctor relationship, and also doctor's wellness and less burn out were related to empathy (35).

Thus, when patients' needs, including spiritual needs, are addressed, it will affect the patient-doctor relationship, and this is the humanistic dimension of the patient-doctor relationship with regards to patient's dignity in a compassionate and empathic relationship (19).

4) Physician's knowledge about spirituality and its effects on health and its clinical applications

Doctors admit to their need for addressing spirituality with their patients, but they report some barriers which include insufficient time, lack of training in this field, being unreligious, and fear of violating the patient's privacy, or exposing their religious beliefs (36).

Also, physicians need to learn how to deliver appropriate and professional care to someone who has different religious and spiritual beliefs.

Additionally, training on spiritual and health could help them to better cope with overwhelming stresses and challenges in the health care provider's professional life (34).

Nowadays, spirituality is considered as a sociocultural determinant of health to cope with stress in patients and health care professionals (26). Thus, addressing spirituality as a cultural dimension of people's lives can reduce disparity in delivering health care services. Also, when the aim is to promote health at the community level and to integrate spirituality in primary health care and the effect of shared decision-making on health outcomes, social and cultural elements of human's life should be considered, as these determinants have an influence on patient's choices, attitude, and behaviors in health (37). However, spirituality affects patient's adherence to treatment, helps cope with the disease and challenges around therapy, improves quality of life, and even promotes patient's knowledge about the illness (38).

Integration of spirituality and health in general medicine curricula is needed. Thus, several topics are suggested by some authors to design a training course on spirituality. Hartung et al suggested that the course should contain the followings: spiritual assessment without judgment; general effects of spirituality in health; learning to develop an effective and compassionate relationship with chronic and end-stage patients and advise them about their choices and health behaviors; giving bad news and using spirituality as a good clinical resource for patients; learning how to spiritually self-reflect and recognize how it will affect the provided care (39). For example, the educational topics in a course on religion and public health at Harvard University-which religion interchangeably used with spirituality in the literature- included the religious concept of health, methodological challenges in the researches in this field, spirituality and religion effects at the end of life settings, and collaboration between religious and health organizations etc. (17).

Conclusion

In conclusion, the authors propose some strategies for integrating spirituality in general medicine; for example, importing spiritual history-taking in a semiology course and integrating spiritual consideration in a patient-doctor course. Another suggestion is an optional specific spirituality course for volunteers to spread the concept to researchers and physicians. Also, for some specialties that are in connection with severe, chronic, and life-threatening diseases, a specific course with consideration of death and end of life issues and spirituality can be offered.

Conflict of Interests

The authors declare that they have no competing interests.

References

- Monroe MH, Bynum D, Susi B, Phifer N, Schultz L, Franco M, et al. Primary care physician preferences regarding spiritual behavior in medical practice. *Arch Intern Med.* 2003;163(22):2751-6.
- Balboni TA, Vanderwerker LC, Block SD, Paulk ME, Lathan CS, Peteet JR, et al. Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *J Clin Oncol.* 2007;25(5):555-60.
- Neely D, Minford EJ. Current status of teaching on spirituality in UK medical schools. *Med Educ.* 2008;42(2):176-82.
- Idler EL. Religion as a social determinant of public health: Oxford University Press, USA; 2014.
- Kligler B, Maizes V, Schachter S, Park CM, Gaudet T, Benn R, et al. Core competencies in integrative medicine for medical school curricula: a proposal. *Acad Med.* 2004;79(6):521-31.
- Jafari N, Loghmani A, Puchalski CM. Spirituality and health care in Iran: time to reconsider. *J Relig Health.* 2014;53(6):1918-22.
- Rassool GH. The crescent and Islam: healing, nursing and the spiritual dimension. Some considerations towards an understanding of the Islamic perspectives on caring. *J Adv Nurs.* 2000;32(6):1476-84.
- Koenig HG, McCullough ME, Larson DB. Handbook of religion and health: Oxford university press; 2001.
- Sawatzky R, Ratner PA, Chiu L. A meta-analysis of the relationship between spirituality and quality of life. *Soc Indic Res.* 2005;72(2):153-88.
- Jamshidi HR, Cook DA. Some thoughts on medical education in the twenty-first century. *Med Teach.* 2003;25(3):229-38.
- Puchalski CM, Larson DB. Developing curricula in spirituality and medicine. *Acad Med.* 1998;73(9):970-4.
- Koenig HG, Hooten EG, Lindsay-Calkins E, Meador KG. Spirituality in medical school curricula: findings from a national survey. *Int J Psychiatry Med.* 2010;40(4):391-8.
- Lucchetti G, Lucchetti ALG, Espinha DCM, de Oliveira LR, Leite JR, Koenig HG. Spirituality and health in the curricula of medical schools in Brazil. *BMC Medical Educ.* 2012;12(1):1.
- Culatto A, Summerton C. Spirituality and Health Education: A National Survey of Academic Leaders UK. *J Relig Health.* 2015;54(6):2269-75.
- Curriculum of undergraduate medical education 2016 [Available from: <http://sanjeshp.ir/>].
- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today.* 2004;24(2):105-12.
- VanderWeele TJ, Koenig HG. A course on religion and public health at Harvard. American Public Health Association; 2017.
- Mitchell CM, Epstein-Peterson ZD, Bandini J, Amobi A, Cahill J, Enzinger A, et al. Developing a Medical School Curriculum for Psychological, Moral, and Spiritual Wellness: Student and Faculty Perspectives. *J Pain Symptom Manage.* 2016;52(5):727-36.
- Puchalski CM, Vitillo R, Hull SK, Reller N. Improving the spiritual dimension of whole person care: Reaching national and international consensus. *J Palliat Med.* 2014;17(6):642-56.
- Harbinson MT, Bell D. How should teaching on whole person medicine, including spiritual issues, be delivered in the undergraduate medical curriculum in the United Kingdom? *BMC Medical Educ.* 2015;15(1):1.
- Best M, Butow P, Olver I. Do patients want doctors to talk about spirituality? A systematic literature review. *Patient Educ Couns.* 2015;98(11):1320-8.
- Ecklund EH, Scheitle CP. Religion among academic scientists: Distinctions, disciplines, and demographics. *Soc Probl.* 2007;54(2):289-307.
- Beit-Hallahmi B. Explaining the Secularity of Academics: Historical Questions and Psychological Findings. *SRC.* 2015;2(3):104-19.
- Reinert KG, Koenig HG. Re-examining definitions of spirituality in nursing research. *J Adv Nurs.* 2013;69(12):2622-34.
- Hulett JM, Armer JM. A Systematic Review of Spiritually Based Interventions and Psychoneuroimmunological Outcomes in Breast Cancer Survivorship. *Integr Cancer Ther.* 2016;1534735416636222.
- Culatto A, Summerton CB. Spirituality and health education: A national survey of academic leaders UK. *J Relig Health.* 2015;54(6):2269-75.
- Beery TA, Baas LS, Fowler C, Allen G. Spirituality in persons with heart failure. *J Holist Nurs.* 2002;20(1):5-25.
- Movafagh A, Heidari MH, Abdoljabbari M, Mansouri N, Taghavi A, Karamatinia A, et al. Spiritual therapy in coping with cancer as a complementary medical preventive practice. *J Cancer Prev.* 2017;22(2):82.
- Finkelstein FO, West W, Gobin J, Finkelstein SH, Wuerth D. Spirituality, quality of life and the dialysis patient. Oxford University Press; 2007.
- Wachholtz AB, Pearce MJ. Does spirituality as a coping mechanism help or hinder coping with chronic pain? *Curr Pain Headache Rep.* 2009;13(2):127-32.

31. Çoruh B, Ayele H, Pugh M, Mulligan T. Does religious activity improve health outcomes? A critical review of the recent literature. *Explore (NY)*. 2005;1(3):186-91.
32. Polzer RL, Miles MS. Spirituality in African Americans with diabetes: Self-management through a relationship with God. *Qual Health Res*. 2007;17(2):176-88.
33. MacLean CD, Susi B, Phifer N, Schultz L, Bynum D, Franco M, et al. Patient preference for physician discussion and practice of spirituality: Results from a multicenter patient survey. *J Gen Intern Med*. 2003;18(1):38-43.
34. Schonfeld TL, Schmid KK, Boucher-Payne D. Incorporating spirituality into health sciences education. *J Relig Health*. 2016;55(1):85-96.
35. Damiano RF, DiLalla LF, Lucchetti G, Dorsey JK. Empathy in medical students is moderated by openness to spirituality. *Teach Learn Med*. 2017;29(2):188-95.
36. Best M, Butow P, Olver I. Doctors discussing religion and spirituality: A systematic literature review. *Palliat Med*. 2015:0269216315600912.
37. Isaac KS, Hay JL, Lubetkin EI. Incorporating spirituality in primary care. *J Relig Health*. 2016;55(3):1065-77.
38. Stewart WC, Adams MP, Stewart JA, Nelson LA. Review of clinical medicine and religious practice. *J Relig Health*. 2013;52(1):91-106.
39. Hartung YE, Henriques LM, Nyhof-Young JM. Towards an outline for an undergraduate medicine curriculum in spirituality. *Uni Toronto Med J*. 2015;89(2):78-81.
40. Benjamin I, Griggs RC, Wing EJ, Fitz JG, Andreoli TE. Andreoli and Carpenter's Cecil essentials of medicine. 8th ed: Saunders; 2011.
41. Longo DL, Kasper DL, Jameson JL, Fauci AS, Hauser SL, Loscalzo J. Harrison's principles of internal medicine. New York: McGraw-Hill; 2012.
42. Kliegman R, Behrman RE, Nelson WE. Nelson textbook of pediatrics. Elsevier; 2016.
43. Danforth DN, Gibbs RS. Danforth's obstetrics and gynecology: Lippincott Williams & Wilkins; 2008.
44. Harandi A. Textbook of orthopedics and fractures. Tehran: Tehran University of Medical Sciences. 2010;1382.
45. Canale ST, Beaty JH. Campbell's operative orthopaedics: Elsevier Health Sciences; 2012.
46. Simforoosh N, Nouralizadeh A. General Urology. Tehran: Teimourzadeh, Tabib. 2010.
47. Wein AJ, Kavoussi LR, Novick AC, Partin AW, Peters CA. Campbell-Walsh Urology: Expert Consult Premium Edition: Enhanced Online Features and Print, 4-Volume Set: Elsevier Health Sciences; 2011.
48. Javadi M, Feizi S. General Ophthalmology: Farhange Farda; 2011.
49. Ophthalmology AAO. 2014-2015 Basic and Clinical Science Course (bcs): American Academy Of Ophthalmology; 2015.
50. Anniko M, Bernal-Sprekelsen M, Bonkowsky V, Bradley P, Iurato S. Otorhinolaryngology, Head and Neck Surgery: Springer Berlin Heidelberg; 2010.
51. Simon RP, Greenberg D, Aminoff MJ. Clinical Neurology, Seventh Edition: McGraw-Hill Education; 2009.
52. Mortazavi H. Skin diseases textbook: Sepidbarg; 2014.
53. DE E. Lever's Histopathology of the Skin. Philadelphia: Lippincott Williams & Wilkins; 2009.
54. Brunnicardi FC, Hunter JG, Billiar TR, Andersen DK, Matthews JB, Dunn DL, et al. Schwartz's Principles of Surgery, 10th edition: McGraw-Hill Education; 2014.