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The role of religious coping in quality of life among people with chronic disease: A systematic review

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***Abstract*---**This study aims to assess the association of religious coping and social support and self-care toward general quality of life among people with chronic disease. This article was a systematic review study conducted by searching primary articles from online databases including Google Scholar, PubMed, and Science Direct. We systematically searched full articles with the publication year until 2022. Results: Ultimately, 9 studies met the inclusion criteria of the present study and were included in the review. We completed a quality assessment using the Newcastle–Ottawa Quality Assessment scales for observational studies. We found that there was a positive association between positive religious coping with quality of life and hope among patients with cancer or diabetes type 2. We also found that positive religious coping can affect physical symptoms, adjustment to cancer, adherence to treatment, and reducing depression. Conclusion: Positive religious coping can affect the quality of life among patients with chronic diseases, such as cancer and diabetes type 2.

***Keywords*---**coping, religious, cancer, diabetes mellitus, diabetes type 2, quality of life.

Introduction

The Centers for Disease Control and Prevention (CDC) define chronic diseases as conditions that last 1 year or more and that require ongoing medical attention or

limit activities of daily living, or both[1]. Chronic diseases are the leading cause of death and disability worldwide. Globally, the prevalence rates of chronic diseases are rising rapidly in all regions and pervading all socioeconomic classes.[2] Strategies to prevent and manage chronic disease outcomes such as diabetes, cancer, and cardiovascular diseases (CVDs) have global commonalities[3–6]. Chronic disease prevention and management typically focus on behavioral interventions such as healthy eating, increased physical activity, and cessation of unhealthy practices such as tobacco and alcohol use[7–12].

Many people with chronic diseases have poor illness self-management skills which may be related to low self-efficacy and an aversion to participating in self-management activities. It will lead to poor control of their chronic diseases and consequently poor quality of life[13]. Many patients expressed sadness and distress at the changes to their lives as a result of the chronic disease. They felt "trapped in a different life"[14]. Anxiety and uncertainty about the future often accompanies chronic disease. Patients described concern about the prognosis of their chronic disease and uncertainty about their future, often experienced as anxiety and depression[15–18].

Religious coping is an important strategy that can be used to cope with stressful situations[19]. Religious or spiritual coping is defined as the way in which individuals use faith to deal with stressful problems and situations, as well as to prevent or alleviate the negative emotional consequences of these circumstances[20]. This is described as "the use of cognitive and behavioral techniques, in the face of stressful life events"[21]. Religious coping is a multidimensional construct and can have both positive and negative effects on outcomes[22]. In several studies, religious coping has been consistently found to be an important factor affecting quality of life in most chronic conditions. However, limited research has been done on the effects of religious coping and quality of life in chronic diseases patients. Therefore, the objective of the study was to assess the effect of religious coping on the quality of life among people with chronic disease.

Method

Data sources and search strategy

This systematic review was conducted according to the Preferred Reporting Items for Systematic Review and Meta-analyses (PRISMA) guidelines[23]. An electronic search of Google Scholar, PubMed, and Science Direct was conducted from their inception to 31st May 2022 with only English language-based literature using the search string: "coping" AND "religious" AND "cancer" AND "diabetes mellitus" OR "diabetes type 2" AND "quality of life". In addition, this systematic review included comparative studies. This is defined as RCTs, non-RCTs, and observational studies that used a comparison group. The broad inclusion criteria ensured all studies measuring the effectiveness of case managers on diabetes mellitus patient treatment.

Study selection

All studies were included if they met the following eligibility criteria: (a) articles about the effect of religious coping on quality of life among people with chronic disease; (b) chronic diseases including diabetes type 2, hypertension or stroke, and all kind of cancer; (c) the outcome of the study is quality of life consists of hope in regards of the conditions, distress symptoms, etc. Furthermore, the strategy for research was PECOS: 1) P (population): adult with chronic disease; 2) E (exposure): religious coping; 3) C (control): without religious coping; 4) O (outcome): quality of life; 5) S (Studies): all design of studies published in English only. Literature reviews, editorials, and studies not meeting the inclusion criteria were excluded.

Data extraction and quality assessment of studies

Two reviewers independently searched the electronic databases. Studies that were searched were exported to EndNote Reference Library software version 20.0.1 (Clarivate Analytics), and duplicates were screened and removed. Data extraction and quality assessment of included studies was performed simultaneously and independently by two reviewers. The Newcastle–Ottawa Scale (NOS) was used to assess the quality of the cross-sectional studies. A NOS score of 1–5 was considered a high risk for bias, 6–7 was moderate and a score >7 was considered a low risk of bias (details of scoring are provided in Table 1).

Statistical analysis

Review Manager (version 5.3. Copenhagen: The Nordic Cochrane Centre, The Cochrane Collaboration, 2014) was used for all statistical analyses. We did not conduct statistical analysis data because the outcome of the effect size did not match.

Results

Literature search results

The initial search of the three electronic databases yielded 318 potential studies. After exclusions based on titles and abstracts, the full texts of 9 studies were read for possible inclusion. A total of 9 studies remained for qualitative analysis. Figure 1 summarizes the results of our literature search.

Study characteristics

Table 2 provides the basic characteristics of the included studies. Our the analysis included 9 published studies[24–32]. All studies were observational cross-sectional. In total, 1,817 respondents were involved in this review. Six studies were from Iran, one study was from Ghana, USA, and Brazil. Concerning demographic characteristics, all of the studies except three reported the age of patients, which ranged from 10 to 83. Meanwhile, three studies reported the mean age of the subjects.

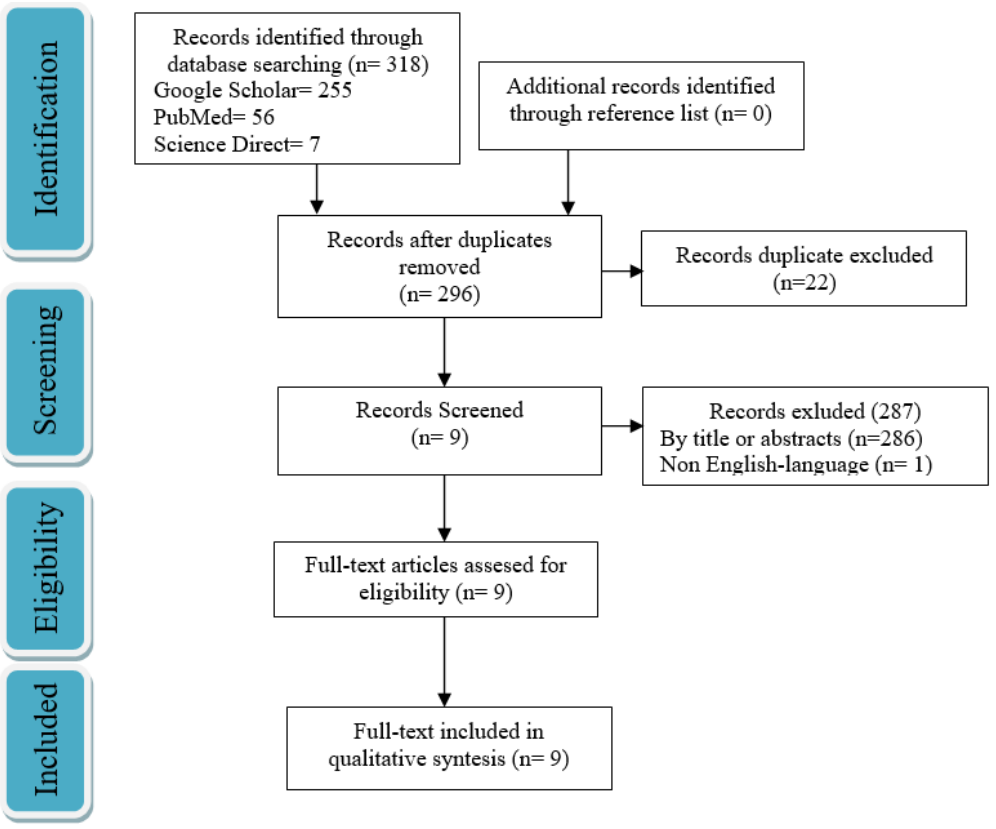

Figure1. PRISMA flow diagram for systematic reviews and meta-analysis which included searches of databases

Table 1. Quality assessment of cross-sectional studies using the Newcastle–Ottawa scale

Studies	Selection				Comparability	Outcome		Total Score
	Representativeness of the sample	Sample size	Ascertainment of exposure	Non-respondents	The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled.	Assessment of outcome	Statistical Test	
Acheampong 2017	0	0	2	1	1	2	1	7
Atef-Vahid et al., (2011)	0	0	2	1	1	2	1	7
Costa et al., (2019)	1	1	2	1	0	2	1	8
Haghighi	1	0	2	2	1	2	1	9
Javanmardifard et al., (2020)	1	1	2	2	0	2	1	9
Khodaveirdyzadeh et al., (2016)	1	1	2	2	0	2	1	9
Shamsalinia et al., (2016)	1	1	2	2	1	2	1	10

Tarakeshwar et al., (2006)	1	0	2	2	1	2	1	9
Zamanian et al., (2015)	1	0	2	2	1	2	1	9

Table 2. Basic characteristics of selected studies

No	Author (Year)	Country	Study Design	Sample Size (Year/ Mean)	Intervention	Objective	Outcome
1.	Acheampong 2017	Ghana	A mixed-method design comprising a cross-sectional survey and a focus group discussion.	164 (40-80 years)	Religious coping, social support, and self-care	Quality of life; Stress among people with type-2 diabetes	Religious coping, social support, and self-care significantly improved the quality of life of type-2 diabetic patients. Results from the focus group discussion with type-2 diabetic patients confirmed the significant role of religiosity and social support in coping with stress associated with type-2 diabetes.
2.	Atef-Vahid et al., (2011)	Iran	Cross-sectional	384 (48.9)	Religious attitude	Quality of life among patients with cancer	Significant correlations were found between patients' scores on the Religious Attitude Questionnaire and various scales of the Quality of Life Questionnaire.
3.	Costa et al., (2019)	Caruaru, Brazil	Cross-sectional	82 (over 18 years)	Positive mechanisms of religious coping	Hope among patients with cancer undergo chemotherapy	Patients who had a high brief religious/ spiritual coping scale score were found to have a higher mean of Herth's level of hope
4.	Haghighi et al., (2013)	Mashhad, Iran	Descriptive-correlational	150 (10-83 years)	Positive religious coping	Depression among cancer patients	The religious coping method of relationship with God was effective in reducing depression.

5.	Javanmardifard et al., (2020)	Iran	Descriptive, cross-sectional	227 (52.25)	Spiritual well-being	Hope and reversely related to adherence to treatment among diabetes patients	Spiritual well-being was directly associated with hope and reversely related to adherence to treatment.
6.	Khodaveirdyzadeh et al., (2016)	North-western Iran	Descriptive-correlational	266 (over 18 years)	Positive spiritual coping	Adjustment to breast cancer	There was a positive and significant correlation between spiritual coping and adjustment to cancer among the study participants.
7.	Shamsalinia et al., (2016)	Iran	Cross-sectional	150 (more than 18 years old)	Positive religious coping, marital status, and social support	Hope among patients with type 2 diabetes	Positive religious coping, marital status, and social support significantly affected hope fostering.
8.	Tarakeshwar et al., (2006)	USA	Cross-sectional	170 (age 20 years or younger)	Positive religious coping	Quality of life and physical symptoms among patients with advanced cancer	After controlling for sociodemographic variables, lifetime history of depression, and self-efficacy, greater use of positive religious coping was associated with a better overall quality of life as well as higher scores on the existential and support quality of life dimensions. Greater use of positive religious coping was also related to more physical symptoms.
9.	Zamanian et al., (2015)	Tehran, Iran	Multi-center cross-sectional	224 (47.1)	Positive religious coping	Quality of life among patients with breast cancer	Positive religious coping was associated with improved quality of life. In contrast, negative religious coping was significantly associated with worse quality of life.

Quality assessment

In general, most of the studies included were of reasonable methodological quality and the abstract of the included studies was able to provide adequate information, particularly on the aims, methods, and findings of each study. We had 2 studies with score 7 which considered a moderate for bias and 7 studies with score more than 7 which considered a low risk of bias.

Results of the review

Three studies by Atef-Vahid et al., (2011); Tarakeshwar et al., (2006); Zamanian et al., (2015) observed the association between positive religious coping and quality of life among patients with cancer. In addition, a study by Tarakeshwar et al., (2006) also reported the association between positive religious coping with physical symptoms among patients. The study by Khodaveirdyzadeh et al., (2016) stated that there was a positive and significant correlation between spiritual coping and adjustment to cancer among the study participants. A study by Costa et al., (2019) observed the relationship between positive religious coping with hope among patients with cancer undergoing chemotherapy.

Haghighi et al., (2013) stated that the religious coping method of relationship with God was effective in reducing depression among people with cancer. Javanmardifard et al., (2020) and Shamsalinia et al., (2016) reported in their study that there are significant correlations between patients' positive religious coping and hope among patients with type 2 diabetes. Furthermore, Shamsalinia et al., (2016) added that marital status and social support also weighted those relationships. Meanwhile, Javanmardifard et al., (2020) reported that positive religious coping also affected the adherence to treatment among diabetes patients. We only found one study by Acheampong (2017) that discuss the association between positive religious coping and quality of life among diabetes type 2.

Discussion

Cancer is a major burden of disease worldwide. Each year, tens of millions of people are diagnosed with cancer around the world, and more than half of the patients eventually die from it. In many countries, cancer ranks the second most common cause of death following cardiovascular diseases[33]. Diabetes mellitus (DM) is a major public health problem worldwide. Current global estimates indicate that this condition affects 415 million people and is set to escalate to 642 million by the year 2040[34].

Religious beliefs and practices are widespread around the world as shown by systematic research, and it is known to be a source of strength, resilience and enables people to make sense of suffering[35]. Our study found that positive religious coping can improve the quality of life among patients with cancer or diabetes. Previous meta-analysis also found that higher self-reported levels of positive religious or spiritual coping are associated with better quality of life and reduced anxiety, depression, and hopelessness among cancer patients[36]. Study by Saffari et al., (2019) stated that the impact of religiosity on medication adherence and quality of life among people with diabetes occurs through the mediators such

as religious coping and social support[37]. Meanwhile, there is also a study claimed that R/S was not significantly associated with type 2 diabetes, but its role in other chronic conditions may be important[38].

We also found that positive religious coping is effective in increasing hope among patients with cancer under going chemotherapy or in patients with diabetes type 2. In addition, it also effective in reducing depression among people with cancer and help an adjustment of living with cancer. It supported by the results of study that stated positive religious or spiritual coping strategies were used by the patients and most cancer patients tried to achieve calmness through religious or spiritual coping[39]. Levels of religion (e.g., religious affiliation, service attendance) and spirituality (e.g., connection to a source larger than oneself, feelings of transcendence) are especially high in people dealing with cancer who are experiencing one of the most stressful events of their life[40]. According to meta analyses by Jim et al., (2015) and Salsman et al., (2015), positive religious or spiritual are associated with physical and mental health in cancer patients[41,42]. Spirituality and spiritual well-being have been shown to provide inner strength and decrease feelings of uncertainty among individuals with diabetes type 2[43]. Study found Duke et al., (2021) stated that their participants saw God as an enabler, assisting them to manage their diabetes type 2; or God as the authority figure determining their life, or considered God was benevolent[44].

Limitation

There were some online databases such as Springer Link, ProQuest, etc, were not included in our search; therefore, there is a risk of partial selection bias. In addition, the inclusion of only English literature may have resulted in selection bias for language limitations, which potentially affected the credibility of the pooled results of this study. Furthermore, despite the title of chronic disease, this study only accounts for those patients with a diagnosis of diabetes type 2 and cancer because we failed to find other articles about the effect of positive religious coping on another kind of chronic disease other than those two diseases.

Conclusion

This review identified and summarized the available evidence from the 9 studies regarding the association between positive religious coping and quality of life among patients with chronic disease. The results suggest that the overall studies stated that religious coping is affecting the quality of life in patients with cancer or diabetes type 2. Likewise, it also affected other components such as hope, physical symptoms, adjustment to cancer, adherence to treatment, and reduced depression. This information about the effect of religious coping responses on patients may be useful in designing interventional programs to assist other patients in dealing with the various challenges imposed upon them by their illnesses.

Conflict of Interest Statement

No competing interests are declared by the authors of this article.

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Ethical Approval

Not needed.

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