The development and psychometric properties of instruments measuring religious coping in clinical cancer research: a systematic review

Authors
Zena Al-Sharbati, Pauline Adair, Susan Rasmussen, Samir Al-Adawi.

Authors' objectives
This systematic review aims to assess the utility of religious coping measures in clinical cancer research. This review aims to identify instruments used in clinical cancer research that measure religious coping; we will look at the development process, psychometric properties of the overall measure as well as the component subscales of religious coping measures. Despite the various studies conducted to explore the relationship between religious/spiritual coping and illness adjustment in cancer (Visser & Vingerhoet, 2010, Zwingmann, Wirtz, Muller, Korber, & Murken, 2006), to our knowledge, no review has investigated the development and psychometric properties of religious coping instruments and measures in clinical cancer research (Schreiber & Brockopp, 2012, Thune-Boyle, Stygall, Keshtgar, & Newman, 2006). The aim is that this review will lead to improved assessment and understanding of the domains of religious coping for the cancer population. Religious coping can be conceptualized as “the use of religious beliefs or behaviors to facilitate problem-solving to prevent or alleviate the negative emotional consequences of stressful life circumstances” (Koenig, Pargament, & Nielsen, 1998, p. 513).

Based on the available literature, Pargament and colleagues (2005) considered five main religious functions in coping: (1) meaning (Geertz, 1966) (2) control (Fromm, 1950), (3) comfort (Johnson, 1959); (4) to provide intimacy (Buber, 1970) and (5) to assist people in making life transformations (Pargament, 1997). For example, from a cognitive perspective, meaning in a stressful situation can be sought in many different ways: redefining the stressor as an opportunity for spiritual growth or redefining the situation as a punishment from God (Pargament, Koenig, & Perez, 2005). Despite the large increase of literature on religious coping and mental health in the cancer population, findings have indicated mixed results partly as a result of the inconsistent conceptualization and measurement of religious coping (Schreiber & Brockopp, 2012, Thune-Boyle, Stygall, Keshtgar, & Newman, 2006). In this systematic review, we hypothesize that religious coping is a multi-dimensional concept and that operationalizing it from a cognitive-behavioural framework may provide a new conceptualization of the differential associations identified in the literature. We thus also aim to explore and delineate the cognitive, behavioral and emotional aspects of religious coping.

Searching:
To capture all studies relevant to the systematic review, a computerized search of the following databases will be conducted:

Medline (ISI) (1950 to date)
EMBASE (1947 to date)
CINAHL (1950 to date)

PsychINFO (EMBASE) (1951 to date)

Arts and Humanities Citation Index (1975 to date)

Web of Science (1970 to date)

**Study selection**

**Searches**

Sources to be searched include:

1. electronic searches in multiple databases,
2. manual searches of selected journals,
3. contact with experts in the field,
4. citation tracking, and
5. contact with corresponding authors.

The restrictions include:

1. grey literature search, and
2. studies published in non-English language.

**Search terms**

**Cancer search terms:** Cancer, Cancer*, Malignan*, Oncology, Tumor, Tumo?r*, Carcinoma, Neoplasm*, Breast cancer

**Religion search terms:** religion ,religious ,religiousness ,religions ,religiosity ,spiritual, spirituality ,faith ,religi*, religio*, chaplain*, religious belief*, spiritual belief*, prayer ,church ,mosque ,meditation ,faith ,religious involv*, God, Spiritual support.

**Coping search terms:** cope, coping, cop*, coping behavio?r, skill*,style , attitude*, role*

**Measurement terms:** outcome, assess*, scale*, psychometric*, questionnaire*, test

measurement*, instrument*, develop*, construct* valid*, standardized*, reliabili*, rating*, Test Validity, rating Scale*, psychometric*, test construction, test Reliability

**Types of study to be included**

Study designs to be included:

Studies to be included will be any cross-sectional or longitudinal study that is concerned with the original development or further validation of a measure of religious coping in cancer research.

We will include:

1. Longitudinal studies
2. Cohort studies,
3. Cross sectional studies
Exclusion criteria include the following:

1. An instrument to assess spiritual/spirituality only.
2. A religious coping measure is not used (position paper, qualitative study, surveys).
3. The studies investigated religious coping measures among health professionals, chaplains or family members.
4. Only general questions about religiosity as opposed to religious coping was used in the study (e.g. religious affiliation, frequency of church attendance).
5. The studies used an instrument without a specific construct of religious coping.
6. Religious coping was assessed using a single item (i.e. how did you use your religion to cope with ill health).
8. The instrument was not developed on cancer populations.

Selection of instruments:

Papers meeting inclusion criteria will be subjected to further, in depth, examination to retrieve instruments proposed to measure religious coping. Instruments will be excluded if:

1. It is difficult to isolate religious from spiritual coping.
2. No data was available on the psychometric properties of the instrument in a referenced journal.

Condition or domain being studied
Religious coping measures used in clinical cancer research.

Participants/ population
Adults diagnosed with cancer who are above 18 years old.

Intervention(s), exposure(s)
The main variable to measure is religious coping strategies which are assessed through fully structured religious coping instruments. Religious coping can be conceptualized as “the use of religious beliefs or behaviors to facilitate problem-solving to prevent or alleviate the negative emotional consequences of stressful life circumstances” (Koenig, Pargament, & Nielsen, 1998, p. 513). For example, positive cognitive religious strategies include a person’s appraisal of the stressful life event as a gift from God, or as a punishment (negative cognitive religious coping strategy). Behavioral techniques can include prayer or attending religious services.

Comparator(s)/ control
Not applicable.

Outcome(s)
Primary outcomes
Focus on religious coping measures in the literature and:
1. Assess the development process
2. Validity (content validity “including face validity”, criterion validity “including concurrent validity and predictive validity”, and construct validity “including structural validity, hypotheses testing, and cross-cultural validity”).
4. Component subscales of religious coping measures.
5. Understanding the theoretical basis for the measures
6. Aims of the measures
7. Exploring how religious coping is defined from the perspective of cognitive, behavioural and emotional focused techniques
8. What population were these studies based on?

Secondary outcomes
None

Data extraction, (selection and coding)

Study Selection: Two researchers will independently screen studies for eligibility by reviewing the titles and abstracts of articles based on the pre-defined eligibility criteria. If the inclusion or exclusion criteria cannot be decided based on the title and abstract, full articles will be retrieved and the decision will be made accordingly. After independent study selection is performed, reviewers will review every selection for agreement. Cohen’s kappa statistic will be used to measure inter-selection agreement and discrepancies will be resolved by consensus. If a decision cannot be achieved, we will seek the opinion of a third reviewer. A flow chart illustrating all included and excluded studies will be created as per PRISMA-P (Moher, Shamseer, Clarke, Liberati, Petticrew, Shekelle, & Stewart, 2015). In addition, a list of all included and excluded studies will be provided as well as the reason(s) for exclusion.

Study coding: Using Microsoft Excel software, we will develop a comprehensive codebook that can hold more than 200 items per study. We will code continuous variables, categorical variables and free text information. The developed codebook will be pilot-tested and revised as necessary. Two researchers will code or extract data from each selected article independently. The researchers will then compare every data point for accuracy and consistency. Inter-rater agreement will be assessed using Cohen’s kappa statistics. Any disagreement will be discussed and resolved until 100% agreement is reached. If consensus cannot be reached, a third reviewer will be consulted.

Risk of bias (quality) assessment

Two researchers will conduct all assessments independent of each other. They will then compare their selections for accuracy and consistency. Inter-rater agreement will be assessed using Cohen’s kappa statistic. Any disagreements will be discussed and resolved until 100% agreement is reached. If consensus cannot be reached, a third reviewer will be consulted to resolve the discrepancy. We will utilize the COSMIN checklist to evaluate the quality of selected studies (Mokkink, Terwee, Patrick, Alonso, Stratford, Knol, Bouter, & de Vet, 2010).
Strategy for data synthesis
Data will be pooled into appropriate software for Meta-Analysis depending on the design and quality of the study. If not appropriate, a narrative synthesis approach will be utilized.

Analysis of subgroups or subsets
We will analyze the subcomponent of religious coping measures based on three main categories: cognitive, affective and behavioral. Based on the component process model, emotion is defined as an event or interrelated, coordinated changes in the states of all or most of the five organismic subsystems in response to the evaluation of an external or internal stimulus event relevant to the concerns of the organism (Scherer, 1987, 2001). The components of an emotion event are the respective states of the five subsystems and the process consists of the coordinated changes over time. Three of the components have long-standing status as modalities of emotion – expression, bodily symptoms and arousal, and subjective experience. The elicitation of action tendencies and the preparation of action have also been implicitly associated with emotional arousal (e.g. fight-flight tendencies).

Cognition, based on Lazarus’s definition, is the organism’s sensory and perceptual appraisal of a stimulus. In other words, it is an appraisal for an “evaluative perception” of the positive and negative implications of the stimulus. For Lazarus, cognition is the processes leading to appraisal regardless if it was made at the sensory or at the level of complex conscious reasoning. Given that the behavioral choice has a functional value, Lazarus assumes that this value was involved in the stimulus processing itself. Cognition can include and is not limited to knowledge, attention, memory, judgment, evaluation, reasoning, problem solving, decision making and comprehension.

Based on the COM-B system (a new framework for understanding behavior), behavior is defined as the interaction among three main elements within the system: capability, opportunity, and motivation. Capability is the ability (physical and psychological) to engage in a specific behavior, while motivation is an umbrella term covering all brain processes involved in directing the individual toward a specific behavior (i.e. includes habits, emotional responding). Opportunity includes all other external factors that lead to behavior. All of the three elements of the CMB-B system influence each other and are interconnected (Michie et al., 2011).

Dissemination plans
Results will be presented at a professional meeting and published in a peer-reviewed journal.

Contact details for further information
Zena Al-Sharbaty
Department: Behavioral Medicine, Sultan Qaboos University.
Telephone: +96824144367
E-mail: zena.al-sharbati@strath.ac.uk

Organizational affiliation of the review
University of Strathclyde
http://www.strath.ac.uk/
Sultan Qaboos University
www.squ.edu.om

Review team
Zena Al-Sharbati, Sultan Qaboos University
Dr Pauline Adair, University of Strathclyde
Dr Susan Rasmussen, University of Strathclyde
Prof. Samir Al-Adawi, Sultan Qaboos University

Details of any existing review of the same topic by the same authors
There is no earlier version of this systematic review with meta-analysis.

Anticipated or actual start date
October 2015

Anticipated completion date
October 2016

Funding sources/sponsors
Not applicable.

Conflicts of interest
None known

Language
English

Country
United Kingdom, Sultanate of Oman.

Subject index terms status

Subject index terms
Adult; religious coping measures, clinical, reliability, validity, scale development.

Stage of review
Ongoing

Date of registration in PROSPERO

Date of publication of this revision

Stage of review at time of this submission  Started  Completed
Preliminary searches  No  No
Piloting of the study selection process  No  No
Formal screening of search results against eligibility criteria  No  No
Data extraction  No  No
Risk of bias (quality) assessment  No  No
Data analysis  No  No

References


