Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature

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Abstract

The present paper systematically reviews studies examining the potential beneficial or harmful effects of religious/spiritual coping with cancer. Using religion and spirituality as resources in coping may be specifically prevalent in patients with cancer considering the potentially life-threatening nature of the illness. Religious/spiritual coping may also serve multiple functions in long-term adjustment to cancer such as maintaining self-esteem, providing a sense of meaning and purpose, giving emotional comfort and providing a sense of hope. Seventeen papers met the inclusion criteria of which seven found some evidence for the beneficial effect of religious coping, but one of these also found religious coping to be detrimental in a sub-sample of their population. A further three studies found religious coping to be harmful and seven found non-significant results. However, many studies suffered from serious methodological problems, especially in the manner in which religious coping was conceptualised and measured. The studies also failed to control for possible influential variables such as stage of illness and perceived social support. Due to this, any firm conclusions about the possible beneficial or harmful effects of religious coping with cancer is lacking. These problems are discussed and suggestions for future studies are made.

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Introduction

There is an increasing interest in the role and importance of religion/spirituality in the context of health, illness and healthcare practice. The potential role of religion and associated beliefs in the context of physician/patient interactions, and to what extent training should be offered to healthcare professionals on this topic has been examined (see Post, Puchalski, & Larson, 2000; Sloan, Bagiella, Vandeckreek, & Poulos, 2000). Another topic involves an examination as to whether the prayer of others can influence the course of illness (e.g. Krucoff et al., 2005). The influence of patients’ own religious/spiritual coping cognitions and practices on the course of their health and illness has been another topic of study and is the subject of this paper.
Coping has been defined as “ongoing cognitive and behavioural efforts to manage specific external and/or internal demands” (Lazarus, 1993) and refers to the processes through which individuals try to understand and deal with significant demands in their lives (Pargament, 1997). Significant interest in the coping process has been evident in the research literature over the last 30 years and its importance is reflected in its incorporation into models of stress and illness (e.g. the Stress-Coping Model; Lazarus & Folkman, 1984; the Self-Regulation Model; Leventhal, Meyer, & Nerenz, 1980). However, the role of religion and spirituality in coping with illness has received relatively little attention as a specific area of study. For example, Tix and Fraser (1998) found that only 1% of coping studies had examined the use of faith in coping.

Religious coping can be defined as “the use of cognitive and behavioural techniques, in the face of stressful life events, that arise out of one’s religion or spirituality” (Tix & Fraser, 1998). The importance of religious coping is reflected in its inclusion in commonly used coping questionnaires (e.g. the COPE by Carver, Scheier, and Weintraub (1989); the Brief COPE by Carver (1997) and the Ways of Coping Scale by Folkman and Lazarus (1988)). However, attempts to classify religious/spiritual coping raises difficulties. This form of coping is often conceived as emotion focussed but can potentially have cognitive (e.g. appraising an illness as part of God’s plan) and also behavioural (e.g. praying or attending religious services) components. Some general coping measures also ignore the possibility that religious coping might entail a unique coping dimension (Bjorck, 1997). The distinct nature of religious coping is evident empirically in studies where it was found that the religious coping items of the COPE and Brief COPE loaded exclusively together on one sub-scale (Carver, 1997; Carver et al., 1989).

Although religion is often described in the literature as a form of escapism, denial or avoidance, it has been argued that this view is simplistic and stereotypical and fails to consider the diverse roles religious/spiritual cognitions, practices and religious communities play in people’s attempts to try to understand and deal with significant demands in their lives (Pargament et al., 1988). In fact, reviews have generally found religious coping to be more typically a help rather than a hindrance (e.g. Harrison, Koenig, Hays, Eme-Akwari, & Pargament, 2001).

The prevalence of religious coping generally depends on the type of stressor, sample characteristics and situational factors (e.g. type of illness, time since diagnosis, stage of illness, remission status and treatment) (Spilka, Shaver, & Kirkpatrick, 1985). By and large, studies examining religious coping in medically ill patients have found that between 34% and 86% have reported using their religious/spiritual cognitions and activities in coping with their illness (e.g. Ayele, Mulligan, Gheorghiu, & Reyes-Ortiz, 1999; Koenig, 1998). A further important factor is the country or cultural context in which the studies are performed. Most studies have been conducted in the USA. It is therefore unclear at present, how prevalent religious coping is in other countries. Further, a Gallup survey (Gallup International Millennium Survey, 2000) found that 83% of Americans felt God was important in their lives in comparison to 49% of people in Europe. Beliefs and public practice have also been found to differ between countries. In the US, 47% attend a place of worship regularly and 91% believe in God/higher power (Gallup International Millennium Survey, 2000). In the UK, only 12% of individuals attend church on a regular basis. However 21% have no doubts about the existence of God and a further 51% say they have some belief in a God or a Higher Power (Social Trends, 2000, Chap. 13). The distinction between public and private practice is further complicated by people’s attitudes to religious institutions. Gallup’s survey (Gallup International Millennium Survey, 2000) found dissatisfaction with traditional forms of worship where many people do not believe it is imperative to attend regular worship services in order to have a relationship with God. These cultural differences have implications for the development of interventions and the provision of spiritual support from health-care professionals and hospital clergy.

Religious/spiritual resources may be particularly relevant when dealing with situations involving an element of personal threat such as a diagnosis of cancer (McCrae, 1984). Sherman and Simonton (2001) found that religious activities usually rank among the most frequent coping responses reported by cancer patients. Religious resources may also serve multiple functions in long-term adjustment to cancer such as maintaining self-esteem, giving
emotional comfort and hope, and providing a sense of meaning and purpose (Jenkins & Pargament, 1995; Johnson & Spilka, 1991). Further, being diagnosed with a potentially life-threatening illness may prompt a re-evaluation of one’s spiritual beliefs (e.g. Feher & Maly, 1999; Moschella, Pressman, Pressman, & Weissman, 1997). There is also an expanding literature on post-traumatic growth in response to cancer which has highlighted the potential of beneficial changes such as meaning and spiritual growth in patients as a result of their illness experience (e.g. Cordova, Cunningham, Carlson, & Andrykowski, 2001; Sears, Danoff-Burg, & Stanton, 2003). There is evidence that the spiritual needs of cancer patients are under-addressed by health-care professionals (e.g. Kristeller, Sheedy Zumbrun, & Schilling, 1999).

The aim of the present review is to examine the use of religious/spiritual cognitions and behaviours as coping strategies during cancer, and its effects on illness adjustment, psychological well-being and/or quality of life.

Three questions will be addressed:

1. Is there a reliable association between religious coping and psychological well-being or illness adaptation in cancer patients?
2. How has religious coping been measured in cancer patients and do some measures provide better results than others?
3. What are the main limitations and methodological shortcomings of current work in this area?

Method

Inclusion/exclusion criteria

Studies were selected that met the following criteria:

(i) Papers must examine religious/spiritual cognitions and/or behaviours as coping strategies in adults dealing with cancer. Papers that only examined religious coping in children with cancer or in relatives of cancer patients were excluded.

(ii) Papers must be quantitative and measure the use of religiousness/spirituality in coping with cancer as an independent variable with psychological well-being and/or illness adaptation being used as dependent variables.

(iii) They must be published in peer-review journals with religious coping appearing as an important factor in the title or abstract.

Database searches


The abstracts obtained from the initial search were examined to identify suitable studies. Through this search, a conceptual confusion in the use of religion and spiritual coping became apparent (see also Sherman & Simonton, 2001). For example, some studies confused a general religious orientation (i.e. an individual’s typical religious involvement or intrinsic religiousness), with illness specific religious coping (how religious/spiritual cognitions and behaviours are used in the coping process). Other studies used religion/spirituality as an outcome variable (e.g. spiritual well-being), rather than as a coping resource. Two studies used the Systems of Beliefs Inventory (Holland et al., 1998) which confounds coping with outcome. On this basis, these papers were excluded (Baider et al., 1999; Holland et al., 1999). Seventeen papers met the inclusion criteria (see summary of studies displayed in Table 1). Ten of these papers did not examine religious coping as their main aim.

Results and discussion

General findings

Table 1 shows that seven of the 17 studies found significant results where religious coping, measured in one form or another, proved advantageous in terms of reducing distress or increasing illness adjustment. Acklin, Brown, and Mauger (1983) found a higher frequency of church attendance to be associated with decreased feelings of anger-hostility and social isolation. Church attendance was also positively correlated with transcendent meaning.
Table 1
Summary of papers under review

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Study aim</th>
<th>Design assessment time(s)</th>
<th>Sample size &amp; cancer site</th>
<th>Recruitment information</th>
<th>Religious coping measure(s) or items</th>
<th>Main outcome measure(s)</th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td>Acklin et al. (1983) USA</td>
<td>To assess the importance of religious orientation, transcendent meaning attribution, and church attendance on psychological well-being</td>
<td>Cross-sectional</td>
<td>26 cancer patients and 18 non-cancer patients</td>
<td>Inpatients ($n=6$) and outpatients ($n=20$)</td>
<td>Frequency of church attendance</td>
<td>Grief Experience Inventory (Sanders et al., 1979)</td>
<td>Church attendance significantly associated with decreased feelings of anger-hostility, &amp; social isolation in both groups. Church attendance positively correlated with transcendent meaning.</td>
</tr>
<tr>
<td>Alleni et al. (1999) USA</td>
<td>To examine religiosity and religious coping among Hispanics and individuals with different religious affiliations</td>
<td>Longitudinal - Assessed at pre-surgery, post-surgery, 3, 6, and 12 months</td>
<td>49 newly diagnosed breast cancer patients. 34 Catholic and 12 ‘Evangelical’</td>
<td>Referred from hospital breast health centre 15% refusal rate</td>
<td>Frequency of church attendance &amp; prayer, extent of turning to religion for comfort</td>
<td>Profile of Mood State (McNair et al., 1971).</td>
<td>Catholic’s: church attendance at 6 months predicted greater distress at 12 months. Evangelical’s: emotional support from church member at 6 months predicted lower distress at 12 months. Turning to religion was positively correlated with psychological distress and negatively correlated with psycho-social adjustment. Multiple regression included religious items as emotion-focused coping only.</td>
</tr>
<tr>
<td>Ben-Zur et al. (2001) Israel</td>
<td>To investigate psychological distress, psychological adjustment and coping of both patients and their spouses</td>
<td>Cross-sectional</td>
<td>73 patients with stage I and II breast cancer</td>
<td>Recruited 2–6 months after diagnosis at two oncology clinics</td>
<td>Religious items from the COPE (Carver et al., 1989)</td>
<td>Brief Symptom Inventory (Derogatis &amp; Spencer, 1982). Psychosocial adjustment measure developed for the study 30-item short Hebrew version of the COPE (Carver et al., 1989). Life Orientation Test (Scheier &amp; Carver, 1985). COPE (Carver et al., 1989). Profile of Mood States (McNair et al., 1971).</td>
<td>Turning to religion was positively correlated with psychological distress and negatively correlated with psycho-social adjustment. Multiple regression included religious items as emotion-focused coping only. Religious coping not significantly correlated with distress at any time point.</td>
</tr>
<tr>
<td>Carver et al. (1993) USA</td>
<td>To examine optimism-pessimism and coping as predictors of well-being during crisis</td>
<td>Longitudinal - Assessed the day before surgery, at 7-10 days post surgery, 3, 6 and 12 months post surgery</td>
<td>59 newly diagnosed breast cancer patients</td>
<td>Recruited during diagnostic visit. 15% refusal rate</td>
<td>The religious items from the COPE (Carver et al., 1989)</td>
<td>Life Orientation Test (Scheier &amp; Carver, 1985). COPE (Carver et al., 1989). Profile of Mood States (McNair et al., 1971).</td>
<td>Prospective relationship of religious coping to distress not significant. More pre-surgical distress predicted less post-surgical religious coping.</td>
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<tr>
<td>Culver et al. (2002) USA</td>
<td>To compare minority groups with white patients in distress, coping strategies and the relationship between these across a period of one year</td>
<td>Longitudinal—2 days before, 7-10 days post-surgery, 3, 6 and 12 months post-surgery</td>
<td>131 breast cancer patients</td>
<td>Oncology clinics and private practices participants did not complete all assessments</td>
<td>The religious items from the brief COPE (Carver et al., 1989). Life Orientation Test (Scheier &amp; Carver, 1985) Distress assessed via mood-descriptive adjectives reflecting anxiety, anger and depression CESD (Radloff, 1977)</td>
<td>Distress assessed via mood-descriptive adjectives reflecting anxiety, anger and depression CESD (Radloff, 1977)</td>
<td>Distress assessed via mood-descriptive adjectives reflecting anxiety, anger and depression CESD (Radloff, 1977).</td>
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<tr>
<td>Ell et al. (1989) USA</td>
<td>To investigate social support, sense of control and coping behaviour in</td>
<td>Cross-sectional data</td>
<td>369 cancer patients—breast (168), lung (51) and colorectal (75).</td>
<td>Recruited from hospital registries Of 1055 patients,</td>
<td>Four items measuring active reliance on religion (items not specified), Coping items</td>
<td>Mental Health Inventory (Ware et al., 1979)</td>
<td>Mental Health Inventory (Ware et al., 1979). Not significantly related to emotional distress.</td>
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<tr>
<td>Study (Year)</td>
<td>Country</td>
<td>Objective</td>
<td>Study Design</td>
<td>Sample Details</td>
<td>Methods</td>
<td>Outcomes</td>
<td>Findings</td>
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<td>Filipp et al. (1990) Germany</td>
<td>To examine coping efforts on well-being in the face of severe, chronic illness</td>
<td>Longitudinal—12 months at four 3-months intervals</td>
<td>332 cancer patients (breast = 83, digestive system = 63, mouth, throat and larynx = 47, blood and lymphatic system = 43) at baseline</td>
<td>No detail where from; 202 (61%) left at follow-up</td>
<td>Items part of a general coping measure (FEKB Klauer &amp; Filipp, 1987) labelled “Search for meaning in religion”</td>
<td>Subjective well-being—Bf-S (von Zerssen, 1976)</td>
<td>A ‘search for meaning in religion’ not significantly related to well-being across time</td>
</tr>
<tr>
<td>Gall et al. (2000) Canada</td>
<td>To explore religious resources in long-term adjustment to breast cancer</td>
<td>Cross-sectional.</td>
<td>32 breast cancer</td>
<td></td>
<td></td>
<td>Religious coping Activities Scale (Pargament et al., 1990)</td>
<td>Religious resources, above that attributed to non-religious coping, accounted for 14% of the variance in emotional well-being and 16% of the variance in life satisfaction</td>
</tr>
<tr>
<td>Harcourt et al. (1999) UK</td>
<td>To investigate whether same day diagnosis and coping strategies impact on short-term and long-term distress in breast cancer</td>
<td>Longitudinal—randomised control trial between one-stop and two-stop clinics</td>
<td>78 with breast cancer (44 = one-stop, 34 = two-stop)</td>
<td>Recruited from a specialist hospital breast clinic 26% failed to complete all assessments</td>
<td>The religious items from the brief COPE (Carver et al., 1989, 1997).</td>
<td>Brief symptom Inventory (Derogatis, 1993) Life Satisfaction Questionnaire (adapted from Campbell et al., 1976) Hospital Anxiety and Depression Scale (Zigmond &amp; Snaith, 1983)</td>
<td>At 8 weeks, the use of religion in coping was associated with increased levels of anxiety</td>
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<tr>
<td>Musick et al. (1998) USA</td>
<td>To examine the effect of religious activity on depressive symptomology in elderly persons with cancer</td>
<td>Cross-sectional</td>
<td>251 cancer patients (lung, breast, colon, lymphoma, leukaemia, melanoma &amp; other skin cancer). 1770 other illnesses 894 no illness</td>
<td>Data gathered from the Duke Established Populations for Epidemiological Studies of the Elderly</td>
<td>Service attendance, religious media (watching/listening to services on TV or radio), private religious practices</td>
<td>Depressed affect &amp; positive affect—CES-D scale (Ensel, 1986) Religious activity related to lower levels of depressive symptomatology among Blacks only. Effect of service attendance on positive affect for Blacks with cancer significantly differed to those of the control groups. Religious coping (deferring-collaborative) showed a positive relationship with illness adjustment but no relationship with quality of life</td>
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<tr>
<td>Nairn and Merluzzi (2003) USA</td>
<td>To determine whether three types of religious coping strategies are related to quality of life and adjustment to cancer</td>
<td>Cross-sectional</td>
<td>Two samples: (1) n = 154—in illness adjustment, (2) n = 138 quality of life</td>
<td>Oncology clinic and a community hospital</td>
<td>Religious Problem Solving Scale (Pargament et al., 1988)</td>
<td>The Psychological Adjustment to Illness Scale self-report (Derogatis &amp; Derogatis, 1990) The Functional Assessment of Cancer Therapy—General Version (Cella, 1997)</td>
<td>34% refusal rate</td>
</tr>
<tr>
<td>Author (Year)</td>
<td>Study aim</td>
<td>Design assessment time(s)</td>
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<tr>
<td>Sheraliker and Steptoe (2000) UK</td>
<td>To assess daily diary measures of coping with new treatment for cancer on mood</td>
<td>Prospective—daily diary assessments during 28 days of treatment</td>
<td>10 cancer patients with advanced metastatic disease (lung, breast, colon &amp; kidney)</td>
<td>Patients involved in a clinical trial at a medical oncology unit. No patients refused</td>
<td>Religious coping items from COPE (Carver et al., 1989)</td>
<td>Hospital Anxiety and Depression Scale (Zigmond &amp; Snaith, 1983). Profile of Mood State (McNair et al., 1981) — 8 items Mental Adjustment to Cancer (MAC) Scale (Watson, 1988)</td>
<td>Not significantly linked to illness adjustment or mood</td>
</tr>
<tr>
<td>Sherman et al. (2000) USA</td>
<td>To examine coping patterns among patients with head and neck cancer at different phases of their illness</td>
<td>Cross-sectional—Between groups at different stages of illness (1) Pre-treatment, (2) on treatment, (3) &lt;6 months and (4) &gt;6 months post-treatment</td>
<td>120 patients with advanced head and neck cancer. 30 patients in each group</td>
<td>University hospital clinic</td>
<td>Religious coping items from COPE (Carver et al., 1989)</td>
<td>The Profile of Mood States-Short Form (McNair et al., 1992)</td>
<td>Religious coping not significantly linked to emotional distress or cancer-related stress symptoms</td>
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<tr>
<td>Sherman et al. (2001) Published abstract. USA</td>
<td>To assess two specific religious coping patterns in patients with a life-threatening illness</td>
<td>Cross-sectional</td>
<td>70 myeloma patients assessed before bone marrow transplantation</td>
<td>No details</td>
<td>An adapted version of the Brief RCOPE (Pargament et al., 1998)</td>
<td>BSI—anxiety and depression Cancer-specific stress (impact or events). Satisfaction with Life Scale Quality of Life (FACT-T).</td>
<td>Positive religious coping was minimally associated with outcome measures Negative religious coping was related to distress, increased cancer-related stress, reduced life satisfaction, diminished emotional well-being, and lower social/family well-being, after controlling for disease and demographic variables. Religious coping more tied to psychosocial functioning than physical functioning Turning to religion not correlated with mood or fear of recurrence across time</td>
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<tr>
<td>Stanton et al. (2002) USA</td>
<td>Identify factors that contribute to adaptive survivorship in breast cancer</td>
<td>Longitudinal—before or at preoperative appointment, 3 and 12 months</td>
<td>70 women with stage I and II breast cancer</td>
<td>Hospital oncology clinic and group surgical practice at pre-operative appointment</td>
<td>Items from the COPE (Carver et al. 1989).</td>
<td>The Hope Scale (Snyder et al., 1991).</td>
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<tr>
<td>Study</td>
<td>Objective</td>
<td>Design</td>
<td>Setting</td>
<td>Sample Size</td>
<td>Measures Used</td>
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<td>Wasteson et al. (2002) Sweden</td>
<td>Examine stressors, coping and well-being in gastrointestinal cancer</td>
<td>Cross-sectional (but tested over 12 months for survival data and religious beliefs)</td>
<td>University hospital</td>
<td>95 newly diagnosed gastrointestinal cancer</td>
<td>One week daily assessments of mood &amp; coping and a retrospective assessment of anxiety &amp; depression covering the same period. COPE (Carver et al., 1989). The Profile of Mood States (McNair et al., 1971). Fear of Recurrence Scale (Northouse, 1981). Items from a translated version of the Daily Assessment of Coping (DCA) (Stone &amp; Neale, 1984) were used (e.g. sought spiritual support). Daily assessment of mood (happiness/sadness). Religious coping was not related to daily stressful events nor was it related to distress.</td>
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<tr>
<td>Yates et al. (1981) USA</td>
<td>To examine whether religious connections and beliefs were associated with well-being, pain, survival and whether religious beliefs changed across time in terminally ill cancer patients</td>
<td>Cross-sectional (but tested over 12 months for survival data and religious beliefs)</td>
<td>71 terminally ill cancer patients. 22 lung, 18 breast, 11 gastrointestinal and 20 other.</td>
<td>No details</td>
<td>Pain, well-being (including satisfaction and happiness) and survival (questionnaires not specified). Religious activity and connections positively correlated with life satisfaction, happiness and positive affect and negatively correlated with pain levels.</td>
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</table>
Gall, Miguez de Renart, and Boonstra (2000) found that religious resources accounted for 14% of the variance in emotional well-being and 16% of the variance in life satisfaction above that attributed to non-religious coping strategies. Nairn and Merluzzi (2003) found that religious problem-solving (deferring-collaborative strategies) was positively correlated with illness adjustment but found a non-significant relationship between religious coping and quality of life. Finally, Yates, Chalmers, St. James, Follansbee, and McKeegney (1981) found religious activities to be positively correlated with life satisfaction, happiness and positive affect and negatively correlated with pain levels.

Three of the above seven studies had significant results for sub-groups of their sample only. Alferi, Culver, Carver, Arena, and Antoni (1999) found that church attendance and seeking support from a priest/minister proved advantageous for Evangelical women but detrimental for Catholics. In addition, obtaining emotional support from church members predicted less distress in Evangelical women only. Musick, Koenig, Hays, and Cohen (1998) found that service attendance was associated with lower levels of depressed symptomatology for Black participants only. Stanton, Danoff-Burgh, and Huggins (2002) did not find an overall effect of ‘turning to religion’ in coping with illness adjustment or fear of recurrence. However, ‘turning to religion’ in less hopeful women predicted adjustment whereas low religious coping predicted better adjustment in high hopeful women. Their study was longitudinal in design and treated hope as a dispositional variable (i.e. not subject to change over time).

Four studies found religious coping to be harmful. Although Alferi et al. (1999) found aspects of religious coping to be beneficial for Evangelical patients (see above), they found aspects of religious coping to increase distress in Catholics. Ben-Zur, Gilbar, and Lev (2001) found ‘turning to religion’ to be positively correlated with psychological distress and negatively correlated with psychosocial adjustment. Harcourt, Rumsey, and Ambler (1999) found the use of religion in coping increased levels of anxiety in patients with breast cancer. Finally, after controlling for disease and demographic variables, Sherman, Simonton, Plante, Reed Moody, and Wells (2001) found negative religious coping (e.g. questioning, challenging and turning away), to be associated with raised levels of distress, increased cancer-related stress, reduced life satisfaction, diminished emotional well-being and lower social/family well-being.

Seven studies, using various approaches to religious/spiritual coping, found no effects. Carver et al. (1993), Culver, Arena, Antoni, and Carver (2002), Sherliker and Steptoe (2000) and Sherman, Simonton, Camp Adams, Vural, and Hanna (2000) using items from the COPE (Carver et al., 1989) labelled ‘turning to religion’ found no effect between these and distress/adjustment or cancer-related symptoms. Filipp, Klauser, Freudenberg, and Ferring (1990) failed to achieve a significant effect between ‘searching for meaning in religion’ and well-being across time and Ell, Mantell, Hamovitch, and Nishimoto (1989) found a non-significant relationship between religious coping (active reliance on religion) and psychological distress. Finally, Wasteson, Nordin, Hoffman, Glimelius, and Sjödén (2002) did not find religious coping (‘seeking spiritual support’) to be associated with daily stressful events or levels of distress.

Cancer site

Seven studies examined mixed cancer groups (Acklin et al., 1983; Ell et al., 1989; Filipp et al., 1990; Musick et al., 1998; Nairn & Merluzzi, 2003; Sherliker & Steptoe, 2000; Yates et al., 1981). This raises potential problems as cancer encompasses a diverse array of illnesses, and the particular treatments, difficulties and mortality risks that patients face varies with the site of illness. For example, a malignancy which involves disfiguring surgery, or affects the patient’s sexuality or self-esteem, may be more likely to lead to the use of religious or spiritual resources (e.g. Cella & Tross, 1986). It is therefore possible that the use of religious coping may vary with the type of cancer. Of the ten studies that examined specific types or sites of cancers, the majority examined breast cancer (Alferi et al., 1999; Ben-Zur et al., 2001; Carver et al., 1993; Culver et al., 2002; Gall et al., 2000; Harcourt et al., 1999; Stanton et al., 2002). The three remaining studies examined myeloma (Sherman et al., 2001), head and neck (Sherman et al., 2000) and gastrointestinal cancers (Wasteson et al., 2002).

Cancer stage and treatment

The use of religion or spirituality as coping resources may also vary with specific factors that influence the possibility of mortality, such as severe
or advanced disease (Jenkins & Pargament, 1995). Vincour, Threatt, Caplan, and Zimmerman, (1989) suggested that such factors often compromise adjustment and well-being. It may be expected that at crucial times in their illness, patients may rely more on their religion/spirituality, which may change over time as they adapt to their diagnosis and different treatments. Many studies assessed and combined patients at different stages of their cancer and treatment, making it difficult to discern the impact of the relationship between religious coping and these variables (e.g. Acklin et al., 1983; Ben-Zur et al., 2001; Carver et al., 2002; Ell et al., 1989; Filipp et al., 1990; Gall et al., 2000; Nairn & Merluzzi 2003; Sherliker & Steptoe, 2000). Gall et al. (2000) recruited patients diagnosed within the previous five years and found no significant association between cancer stage, number of positive nodes, time since diagnosis and outcome variables.

Other studies used a point in the course of treatment to control for potential heterogeneity in their samples. Some recruited patients prior to diagnosis (Harcourt et al., 1999), newly diagnosed patients prior to surgery (Alferi et al., 1999; Culver et al., 2002; Stanton et al., 2002), during diagnosis (Carver et al., 1993) or recruited terminally ill/advanced patients only (Sherliker & Steptoe, 2000; Sherman et al., 2000; Yates et al., 1981). Although Ell et al. (1989) recruited patients they considered newly diagnosed, it is unclear how long patients had been ill. Of the prospective studies, only two reported variation in religious coping over time. Using the ‘turning to religion’ sub-scale from the COPE, Carver et al. (1993) and Culver et al. (2002) found that religious coping decreased over time.

**Religious affiliation**

Religious affiliation may provide information about differences in the use of religious coping and their impact across religious groups and denominations (e.g. Tix & Fraser, 1998). Religious membership may, for example, predict different types of religious coping strategies (Pargament, 1997) and denominations may differ in the extent to which they foster the emotional well-being of their members, their focus on the expiation of guilt and the preparation for the here-after (Alferi et al., 1999).

Eleven of the studies did not report people’s religious affiliations and only Alferi et al. (1999) demonstrated that some religious groups may show different outcomes. They found differences between a mixed group of evangelical patients who showed more positive illness adjustment from religious coping than Catholics. However, relying on religious affiliation is problematic in that many individuals may report membership of a denomination simply because they attended as a child, and not because they follow that particular faith/denomination.

**Measurements of religious coping**

Religious/spiritual practices refer to attendance at a place of worship or frequency of prayer. It is important to differentiate between public and private activities as the former may offer a community and the social support of members of that community. Four studies (Acklin et al., 1983; Alferi et al., 1999; Musick et al., 1998; Yates et al., 1981) measured patient’s public religious practices (i.e. attending religious services) in relation to outcome, either among other religious items or on their own. Only Musick et al. (1998) controlled for the potential effects of social support. It is therefore unclear if the results from these studies are caused by religious coping alone or whether they mirror work showing social support to be an important stress buffer (e.g. Dunkel-Schetter, 1992; Maunsell, Brisson, & Deschénes, 1995). It is also unclear whether patients actually applied the religious practice to the stressful situation or rather attended and practiced their religion as usual (Pargament, 1999). People may follow religious or spiritual practices habitually and also for a variety of other reasons. These include social reasons, where religious services are attended for social approval or to gain social status. This is often referred to as extrinsic religiousness. Measuring public religious activities may therefore not necessarily explain much about the use of faith in coping. The need to go beyond public practice in studies on religious coping is further emphasised by the finding that an increase in church attendance during illness is less common than increased levels of faith or private practices such as prayer (Moscella et al., 1997). For example, when people are very ill, they may not be able to attend a place of worship and may therefore be more likely to resort to private prayer.

The COPE (Carver et al., 1989) was used by eight studies (Alferi et al., 1999; Ben-Zur et al., 2001; Carver et al., 1993; Culver et al., 2002; Harcourt...
et al., 1999; Sherliker & Steptoe, 2000; Sherman et al., 2000; Stanton et al., 2002) to measure the extent to which people turn to religion when coping with cancer. Only Stanton et al. (2002) found religious coping to be advantageous, and then only for women low in hope. Two studies (Ben-Zur et al., 2001; Harcourt et al., 1999) found ‘turning to religion’ to be associated with poorer outcome.

General coping measures provide little information regarding the content of prayers or the actual cognitions that are used. Different forms of prayer may be associated with different outcomes. For example, it is conceivable that praying for forgiveness (if cancer is viewed as a punishment from God) may be associated with more distress than praying for strength, support and guidance. One study (Sherman et al., 2001) examined positive and negative religious coping strategies using a specific religious coping questionnaire (Brief RCOPE; Pargament, Smith, Koenig, & Perez, 1998). This measure examines specific clusters or patterns of items that are divided into positive (adaptive) and negative (maladaptive) religious coping strategies. Positive religious coping is considered to be more spiritually based and an expression of a secure relationship with a supportive God. Negative religious coping is viewed as an expression from a less secure relationship with God who is distant and punishing, or as a religious struggle in the search for significance (Pargament et al., 1998). One difficulty with this approach is that it makes a priori assumptions of which religious coping strategies are adaptive and which are maladaptive rather than treating this as an empirical question. There is also evidence that not all forms of religious coping fall easily into negative and positive categories. For example, religious rituals, self-directing (i.e. dealing with a situation without relying on God), deferring (giving over control to God) and pleading (i.e. pleading and bargaining with God or praying for a miracle) religious coping strategies have been associated with both positive and negative outcomes (Pargament, 1997).

Two studies examined use of different religious coping strategies. The Religious Coping Activities Scale (Pargament et al., 1990) employed by Gall et al. (2000) measures the specific content of various potentially adaptive or maladaptive coping strategies such as spiritually based, good deeds, religious discontent, religious support, pleading and religious avoidance. The Religious Problem Solving Scale (Pargament et al., 1988) used by Nairn and Merluzzi (2003) consists of three sub-scales measuring collaborative, self-directing and deferring religious coping strategies.

Methodological issues in studies

Design

Most studies were cross-sectional in design (Acklin et al., 1983; Ben-Zur et al., 2001; Ell et al., 1989; Gall et al., 2000; Musick et al., 1998; Nairn & Merluzzi, 2003; Sherman et al., 2000, 2001; Yates et al., 1981) limiting any determination of causal direction between religious coping and distress.

Sample size

Sample size of cancer patients ranged from 10 to 369 (median = 73). In five of the studies, the sample was below 60 (Acklin et al., 1983; Alferi et al., 1999; Carver et al., 1993; Gall et al., 2000; Sherliker & Steptoe, 2000). Power calculations were infrequently reported with only one study reporting adequate power (Harcourt et al., 1999).

Recruitment information

In order to enable generalisation and reduce possible sample biases it is important to ensure low refusal rates, or low drop out rates in longitudinal studies. Six of the 17 studies failed to report this data (Ben-Zur et al., 2001; Culver et al., 2002; Ell et al., 1989; Sherman et al., 2000, 2001; Yates et al., 1981). Of the 11 studies that did, eight had refusal/attrition rates of 28% or below. The three studies with high refusal rates/loss to follow up included Filipp et al. (1990) (39% loss to follow up); Wasteson et al. (2002) (40% refusal rate) and Nairn and Merluzzi (2003) (34% refusal rate). Only Filipp et al. (1990) compared participants with non-participants and established that they did not differ in terms of age, gender and time lapsed since diagnosis.

Origin of studies

Of the 17 studies under review, 11 were conducted in the US, four in Europe, one in Canada and one in Israel. American studies tended to produce more significant findings (both negative and positive) regarding religious coping in the adjustment to cancer. None of the four European studies found religious coping to be important and one found it to be a disadvantage (Harcourt et al., 1999). The importance of culture in religious coping with cancer needs to be examined further.
Social support

Social support may be provided through membership of a religious organisation, thus confounding the impact of religious and spiritual coping on outcomes. There is evidence that social support is correlated with various religious factors such as church attendance, church membership, subjective religiosity, religious affiliation (Taylor & Chatters, 1988) and even private religious practices such as prayer (Koenig et al., 1997). Koenig and Larson (2001) found that 19 of 20 studies showed positive correlations between religious variables and social support.

Three studies included measures of perceived social support. One failed to find any impact of social support (Nairn & Merluzzi, 2003) while Ell et al. (1989), found religious coping to be positively correlated with social support. Musick et al. (1998) assessed social support but only used it as a controlling variable.

An important distinction must be drawn between social support and spiritual support where the latter is perceived as support from God. It is important for studies to distinguish between these two concepts since perceived support from God deals with the individual’s personal relationship with God while ‘congregational support’ deals with social support from clergy or members of an individual’s religious/spiritual community, and is more akin to social support. For example, in one study (Wastesson et al., 2002) it was unclear whether the investigators examined spiritual support or congregational support.

General discussion

Although many of the American studies found non-significant results, an equal number had positive findings showing religious coping to be advantageous to illness adjustment during cancer. Only three studies found detrimental effects, two from sub-samples and one study examining negative religious coping, which expects outcome to be negative anyway. However, none of the four European studies found religious coping to be important and one even found it to be a disadvantage (Harcourt et al., 1999). This may be due to methodological weaknesses, especially how religious coping was measured. The importance of religious coping with cancer, especially across different cultures therefore remains unclear.

A particular issue is how religious coping was conceptualised and measured. The potential confusion of religious coping measures, e.g. cognitions versus behaviours, such as religious service attendance, is particularly important in those societies with high religious service attendance and in studies that relied on a measure of church attendance, as any effect may be confounded by social support. Further, many studies used general coping instruments that do not identify the content of prayer or the cognitions used. Only three studies used measures developed specifically to examine religious coping (Gall et al., 2000; Nairn & Merluzzi, 2003; Sherman et al., 2001), all of which produced significant findings. Personal religious/spiritual coping strategies therefore needs further exploration using appropriately designed instruments where the concepts are treated in a multidimensional manner. Instruments such as the RCOPE (Pargament, Koenig, and Perez (2000) offer a theoretically based measure, designed to examine the full range of religious/spiritual coping methods including potentially harmful religious expressions. It considers five key religious functions in coping: (i) religious coping to give meaning to an event, (ii) to provide a framework to achieve a sense of control over a difficult situation, (iii) to provide comfort during times of difficulty, (iv) to provide intimacy with other likeminded people, and (v) to assist people in making major life transformations. Any form of religious coping may serve more than one purpose. For example, meaning in a stressful situation can be sought in many different ways: redefining the stressor as an opportunity for spiritual growth (benevolent religious reappraisal) or redefining the situation as a punishment from God (punishing God reappraisal). Future studies need to take a multidimensional approach and examine both positive and potentially negative religious coping strategies with specific cancers. Importantly, the psychometric properties of new instruments need to be appropriately measured and reported in studies if the multifaceted nature of religious and spiritual coping is to be adequately understood.

Other limitations and methodological shortcomings were also present in many of the studies. For example, many were cross-sectional and used mixed cancer groups at different stages of their illness. In order to fully understand the role of religious coping with cancer, future studies need to examine religious coping as their main aim, using specific cancer groups that are similar in terms of length of illness.
(e.g. newly diagnosed patients with one type of cancer only). Studies should be longitudinal in design, informing researchers on the short- and long-term effects of both positive and negative coping strategies. This would also increase understanding of how religious coping changes over time in relation to other variables. Studies should also consider a systematic control for other possible influential variables such as perceived social support and illness variables such as cancer stage and treatment.

Finally, although some composite measures of coping include religious items, often as part of other non-religious factors, studies were only included in this review if they mentioned religious coping in their title or abstract. This is a potential limitation of this paper as there may be other studies using these measures in which religious coping was found to be important but not mentioned in the title or the abstract.

References


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