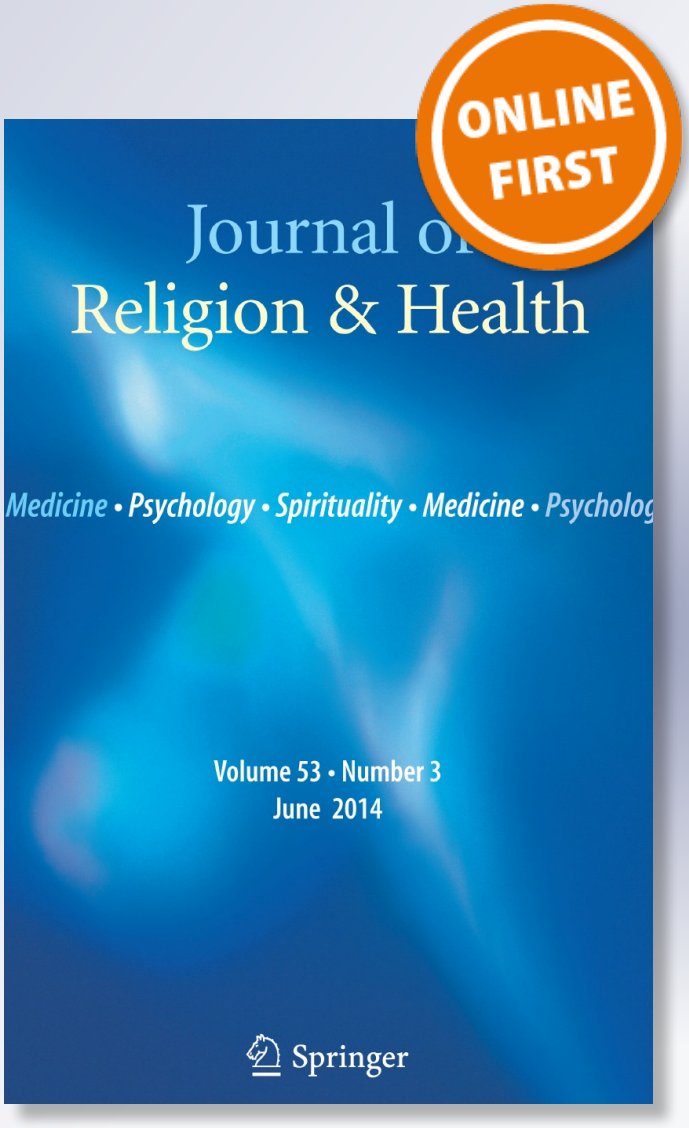
# *How Spirituality Helps Cancer Patients with the Adjustment to their Disease*

**Bert Garssen, Nicoline F. Uwland-Sikkema & Anja Visser**

**Journal of Religion and Health**

ISSN 0022-4197

J Relig Health
DOI 10.1007/s10943-014-9864-9




Springer

J Relig Health
DOI 10.1007/s10943-014-9864-9

ORIGINAL PAPER

# How Spirituality Helps Cancer Patients with the Adjustment to their Disease

**Bert Garssen · Nicoline F. Uwland-Sikkema · Anja Visser**



**Abstract** It has been suggested that spirituality is associated with higher well-being, because it offers social support, improves the relationship with the partner, provides meaning, and reduces self-focus and worry. We performed a qualitative study among ten people with cancer, using the Consensual Qualitative Research method for the analysis of semi-structured interviews. Support was found for the mechanisms of meaning provision and of reduction of self-focus and worries. Participants also mentioned emotion-focused roles of spirituality: Feeling supported by a transcendental confidant, the expression of negative emotions (in prayer), acceptance, allowing feelings of misery, and viewing problems from a distance. There was no mention of a contribution of spirituality to adjustment through improved social support per se or a higher quality of the relationship with the partner. The results of the present study indicate that the role of spirituality in emotion regulation deserves attention in understanding how spirituality helps cancer patients to adjust to their disease.

**Keywords** Cancer · Adaptation · Interviews · Spirituality · Consensual qualitative research

## Introduction

A diagnosis of a serious disease frequently undermines previously unquestioned trust in reality and can thus provoke a crisis in how the patient has always experienced the meaning

Bert Garssen and Nicoline Uwland-Sikkema have contributed equally to the study.

B. Garssen (✉) · N. F. Uwland-Sikkema · A. Visser
Helen Dowling Institute, Center for Psycho-Oncology, Rubenslaan 190, 3582 JJ Utrecht, The Netherlands
e-mail: bgarssen@hdi.nl
URL: http://www.hdi.nl

Published online: 19 April 2014

of life. One possible pathway for coping with this situation is to turn to personal experiences, feelings, opinions, or beliefs that place one's destiny in a larger context, which might imply religiousness for one person and a nonreligious spiritual orientation for another.

Several reviews and meta-analyses have provided evidence for the association between spirituality and well-being (Ano and Vasconcelles 2005; George et al. 2000; Hackney and Sanders 2003; Hill and Pargament 2003; Koenig and Larson 2001; Sawatzky et al. 2005; Smith et al. 2003; Visser et al. 2010; Yonker et al. 2012). Studies have also demonstrated that, compared to people who show less spiritual involvement, patients with a serious disease who attach great value to spirituality show better adjustment, experience a higher level of well-being and quality of life, and experience a lower level of distress (Riley et al. 1998). However, it is less well understood how spirituality might achieve this effect.

One of the first areas that was explored for explanations of the religion—mental health association is the social domain. Church attendance and other organized activities with fellow believers might increase the amount of social support that is received and other relationships might also be of higher quality for religious persons. This was confirmed by Koenig and Larson, who found a relationship between religious involvement and greater social support in virtually all (19 of 20) studies in their review. They explain this finding by suggesting that most religious teachings prescribe support and care for one another. Also, most (35 of 38) studies showed that greater religiousness or similarity in religious backgrounds predicted greater marital happiness or stability (Koenig and Larson 2001).

James and Wells have developed a cognitive-behavioral framework to explain how religion may affect mental health (James and Wells 2003). They propose two mechanisms: religion as a generic mental model and self-regulation opportunities offered by religion. The first mechanism signifies that religious beliefs guide the appraisal of life events. A religious belief system enables individuals to find meaning in stressful life events that are otherwise difficult to explain. This would help to maintain a sense of control and predictability of the world. Other studies have confirmed that belief systems play a beneficial role in coping with physical illness by providing a new meaning to a disease (Blow et al. 2011).

The self-regulation mechanism proposes that religious beliefs and activities direct the current of thought and attention. For example, the belief that certain thoughts are sinful can help a person to reduce these thoughts. Also, meditative prayer suspends worry or rumination. In the words of Baetz: 'Religious behaviors that contribute to self-regulation by reducing self-focus and worry while producing a calming effect (for example, contemplative prayer, mindfulness, meditation, and religious rites) are positively associated with mental health' (Baetz and Toews 2009).

The cognitive-behavioral framework of James and Wells largely corresponds to the concept of religious coping (Pargament et al. 1999; Thune-Boyle et al. 2006). There are two forms of coping: primary and secondary coping. Primary coping refers to efforts to change the situation, such as praying for divine intervention. Secondary coping refers to efforts to change the self in order to adapt to the situation, such as reframing the perceived meaning of a situation as a reflection of God's will (comparable to the generic mental model of James and Wells) or undertaking religious activities that influence emotional distress, for example meditation, contemplative prayer, and rituals (comparable to the self-regulation mechanisms of James and Wells).

Our current study concerns the role of spirituality in the adjustment to cancer. In our view, spirituality overlaps with religiosity, so the mechanisms described above might also be able to explain the effect of spirituality on psychological well-being.

A main theme in definitions of spirituality is connectedness (Chiu et al. 2004; Dyson et al. 1997): connectedness with oneself, connectedness with the outer world, and connectedness with the transcendent. Reed defined spirituality on the basis of conceptual, empirical, and clinical nursing literature as 'the propensity to make meaning through a sense of relatedness to dimensions that transcend the self in such a way that it empowers and does not devalue the individual. This relatedness can be experienced intrapersonally (as a connectedness within oneself), interpersonally (in the context of others and the natural environment), and transpersonally (referring to a sense of relatedness to the unseen, God, or power greater than the self and ordinary source)' (Reed 1992, p. 350). The dimension connectedness with oneself is expressed by aspects such as authenticity, inner harmony/inner peace, consciousness, self-knowledge, and experiencing meaning in life. Connectedness with the outer world is expressed by aspects such as compassion, caring for others, gratitude, and wonder. Connectedness with the Transcendent includes awe, sacredness, and connectedness with something or someone beyond the human level, such as the universe, transcendent reality, a higher power, or God (Chiu et al. 2004; Elkins et al. 1988; Howden 1992; Hungelmann et al. 1985; Mahoney and Graci 1999).

To summarize, theories and previous quantitative studies have suggested that spirituality/religiosity increases psychological well-being by enhancing the availability of social support, improving the relationship with one's partner, offering a sense of meaning, controllability and predictability to life events, and reducing self-focus and worry while producing a feeling of calmness. However, most of the studies on these mechanisms were quantitative in nature, which means that the presuppositions of the researchers for the most part determined which mechanisms would be studied. It begs the question whether these are the only pathways through which spirituality influences the adjustment to cancer. In addition, these quantitative studies provide information on whether or not the mechanisms exist, but they do not describe how these pathways might operate in real life. Therefore, it seems imperative to systematically analyze how cancer patients themselves describe the ways in which spirituality has helped them to adjust to the consequences of their disease. Such an analysis may also yield suggestions for additional mechanisms that have not been included in previous theories. To this end, we have interviewed cancer patients and qualitatively analyzed these interviews.

## Methods

### Participants

This interview study is part of a larger quantitative and longitudinal study into the role of spirituality in the adjustment of cancer patients. Participants in that study were recruited in four hospitals and two radiotherapy institutions. Eligible patients met the following inclusion criteria: born in the Netherlands, Dutch-speaking, receiving curative cancer treatment, and having a life-expectancy of 1 year or longer. All cancer types were included except brain tumor. Patients with psychiatric disorders were also excluded. The patients were approached by a member of the medical staff shortly before or after surgery, or at the start of radiotherapy. After having sent the signed informed consent form to the researchers, the participants completed the first questionnaires (T1). On the informed consent form, participants could indicate whether they wanted to be interviewed 1 year later (T3). All participants received a gift certificate of 7.50 Euros with the first

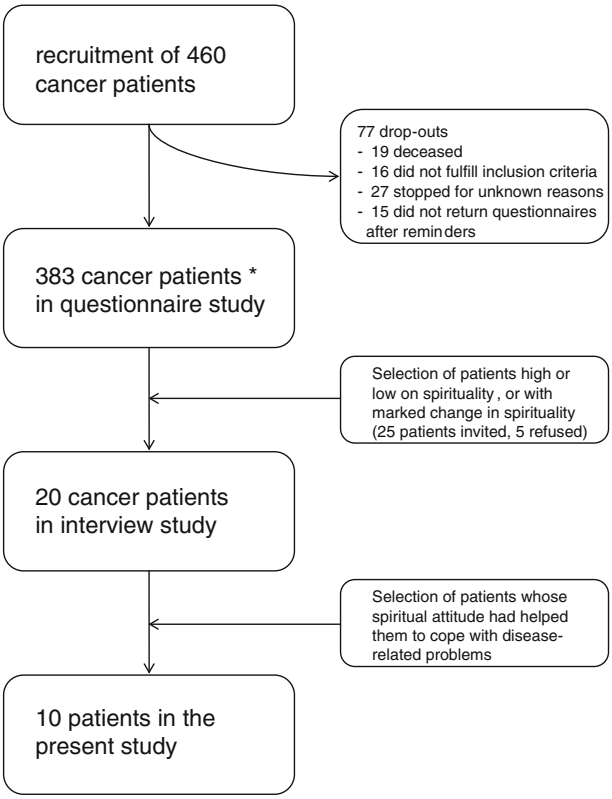



**Fig. 1** Recruitment and selection of the participants in the present study

questionnaire. Participants who were interviewed received an additional gift certificate of 10 Euros (Fig. 1).

At the final measurement moment, potential interviewees were selected through purposive sampling, with the intent to maximize the variance in spirituality and well-being between the interviewees. This would allow us to understand more clearly whether spirituality provided something unique to the process of adjustment to the experience of cancer. A profile was made based on the quantitative data they had provided throughout the study, which included the scores on a spiritual questionnaire (the Spiritual Attitude and Involvement List; de Jager Meezenbroek et al. 2012) and scores on a well-being questionnaire (the Health and Disease Inventories subscale Joy in Life; de Bruin et al. 1996) and distress questionnaire (the Hospital Anxiety and Depression Scale; Spinhoven et al. 1997). If a profile stood out—for example, the person scored high on spirituality, but low on well-being/high on distress or showed a marked change in spirituality or well-being/distress—the person was selected to be interviewed. 'High or low' meant scoring in the highest or lowest sextile. When a participant was selected based on his/her profile, the researcher (NU) called the person by telephone to inform whether the participant was still willing to be interviewed, to provide any additional information he/she might need and to schedule an appointment.

## Interviews

Semi-structured interviews were designed to elicit a narrative on the relationship between the person's life view and the experience of cancer. The interviewee was first invited to describe how he/she had experienced the past year, from the time of diagnosis to the moment of the interview. Next, the interviewee was asked more specifically about her or his life view. In the last part of the interview, the person's definition of spirituality/religiousness and its role in coping with the disease were discussed explicitly. The participant was not offered a standard definition of spirituality.

Interviews lasted about 2 h (1–2¾ h) and were held at the participant's home. All participants were interviewed by the same person (NU), who is a trained and experienced interviewer. Interviewing for the present study was started after three successful pilot interviews. All interviews were recorded on a digital memo recorder and verbally transcribed. To check the interviewer's understanding of the participant's story, a summary of the interview was sent to the interviewee for comments. All participants confirmed its accuracy.

## Analysis

The 20 interviews were evaluated by three independent raters (NU, BG & AV) with respect to several questions that were designed to obtain a consensual rating of the level of well-being and spirituality of the interviewee. For the present study, we focused on the question 'To what degree has the spiritual attitude of the participant helped him/her to cope well with disease-related problems.' This was scored on a five-point scale ranging from 'clearly helped' to 'spirituality is unrelated to coping with disease-related problems or could not find any indication that spirituality was helpful.' In case of a difference in scores, the interview was discussed among the three raters until agreement was reached. The ten patients who had received a score of 3 or higher—that is, patients who showed indications that their spirituality had helped them to cope with problems related to cancer—were selected for further analysis.

To uncover the various ways in which aspects of spirituality might affect the process of adjustment to the consequences of cancer, the interviews have been analyzed with the Consensual Qualitative Research (CQR) method, introduced by Hill, Thompson, and Williams (Hill et al. 1997, 2005). The essential component of CQR is the independent evaluation of semi-structured interviews by several judges, who in the present study were the three authors. The judges discuss their evaluations to arrive at a consensual opinion about the meaning and categorization of the data. This evaluation takes place in four phases: definition of the domain of study (i.e., the research questions), selection of interview fragments, description of core ideas, and categorization of core ideas. One element of the CQR method that we did not apply is the use of an auditor, a specialist in the field, who examines the consensus versions of the categorizations and presents his or her comments to the judges, who discuss these comments to again reach consensus. We decided not to use an auditor as the judges in the present study are experienced in the field of spirituality research and include one senior researcher (BG) and one researcher with an education in qualitative research (NU). In their update of CQR, Hill et al. designate the use of an auditor only as an optional addition to their method (Hill et al. 2005).

In the present study, there was only one domain, namely 'spirituality of cancer patients in relationship to their adjustment to disease-related problems.' Interview fragments that represented this domain were selected by mutual agreement. Next, each of the three judges

tried to capture the essence of the fragment in a few sentences, which are called 'core ideas.' These core ideas were discussed among the judges until agreement was reached about the content and wording of the core ideas. Then, each judge summarized the core ideas into categories that reflected the spiritual adjustment process. These categories were also discussed until agreement was reached. In case new categories were formulated as a result of the discussions among the judges, the step of classifying core ideas under categories was repeated. Examples of core ideas are 'I can leave my troubles with someone when being in church and praying' and 'meditation has helped me to cope well with life during the cancer period.' These core ideas fall under the following categories, which are presented here as examples: 'being in church,' 'praying' and 'meditation', 'contemplation,' and 'yoga.'

After this qualitative analysis according to the CQR method, we have tried to describe the processes by which the aspects of spirituality bring about positive mental states in terms of general psychological concepts. This helps to relate our findings to the theoretical mechanisms of the effect of spirituality on adjustment that are mentioned in the literature. We realize that such a translation only mirrors the spiritual content, but does not totally cover it. For instance, we suggest that praying and telling your sorrows to a relative have a psychological process in common, namely emotional expression, although praying also includes the acknowledgement and experience of a transcendental being that is greater than any human being. For this final phase in the examination of our results, we will also use the two global mechanisms described by James and Wells, which we are discussed in the Introduction (James and Wells 2003).[1]

Qualitative research often suffers from a lack of credibility (reliability) and transparency. We have applied the CQR method, because it contributes to the objectivity of the findings. We acknowledge that our interpretation of the findings is to some degree speculative. However, it is indispensable, if one wishes to go beyond the mere description of what has been said by interviewees, toward explaining these experiences and forming a theory to enable generalization and further testing of the results. Only then can we speak of having conducted qualitative research (Sandelowski 1996).

## Results

The characteristics of the study group are presented in Table 1. Our sample included only one man. The mean age of the participants was 52 years. All but one participant had a partner, and all but two had children living at home. For the current study, only those interviewees were selected of whom the researchers believed their spirituality had contributed to their coping with cancer. This selective sampling is reflected in the fact that all participants considered themselves spiritual; only one person considered himself religious but not spiritual. Three persons said not to belong to any religious denomination. Most participants had breast cancer, which reflects the high rate of breast cancer among the female population.

We found 59 interview fragments in which an interviewee spoke about an effect of spirituality on adjustment. The number of fragments per person varied from 1 to 14, with a mean of 6. Using the CQR analysis, the 59 fragments were subsumed under fourteen

[1] We read the article of James and Wells only after having finished the CQR procedures. So, the selection of fragments and the categorization of these fragments was not influenced by previous knowledge of the pathways in their theoretical framework.

**Table 1** Characteristics of the study group, also in comparison with the characteristics of the total sample

| | Interview group $N = 10$ | Total sample $N = 383$ (%) |
|---|---|---|
| Gender—male | 10 % | 26 % |
| Mean age (years) | 52 | 58 |
| Partner | 90 % | 80 % |
| Children | 90 % | 81 % |
| Children in Household | 80 % | 30 % |
| Education | | |
| Low | 0 % | 15 % |
| Middle | 70 % | 42 % |
| High | 30 % | 42 % |
| Working outdoors | 90 % | 52 % |
| Denomination | | |
| Roman Catholic | 40 % | 24 % |
| Protestant | 30 % | 27 % |
| Otherwise | 0 % | 10 % |
| None | 30 % | 39 % |
| Do you consider yourself | | |
| Spiritual and religious | 50 % | 34 % |
| Spiritual, not religious | 40 % | 15 % |
| Religious, not spiritual | 10 % | 15 % |
| Not spiritual, not religious | 0 % | 36 % |
| Type of cancer | | |
| Breast cancer | 70 % | 65 % |
| Prostate cancer | 10 % | 12 % |
| Cervix cancer | 20 % | 3 % |
| Other types of cancer | 0 % | 20 % |
| Metastases at T1* | 40 % | 19 % |

categories. These are presented in Table 2 and described below, including the interpretation of these fourteen categories. The interpretations are summarized further in Fig. 2. For the sake of convenience, we have grouped the fourteen categories in three larger domains: 'spiritual experiences or convictions' (A), 'spiritual activities' (B), and 'spirituality—general' (C).

## Spiritual Experiences and Convictions

A1. Viewing the disease as a task (to learn a personal lesson or to mean something to other people). This category included many fragments: 10 out of the 59 fragments, which were derived from six of the ten interviews. Especially religious people considered cancer as a task, coming from God:

> I think you've also learned to belief that this [the cancer] gives meaning to your life…. That it crossed your path and that you didn't choose this, but that you can

**Table 2** Processes through which spirituality can help in the adjustment to cancer; categories arising from the analysis of interviews with ten cancer patients

| Spiritual category | Number of fragments[a] | Number of participants[b] | Suggested psychosocial processes |
|---|---|---|---|
| A1. Viewing cancer as a task | 10 | 6 | Positive reframing |
| A2. Experiencing a personally interested and helping God | 18 | 4 | Support from the transcendental confidant |
| A3. Belief in an afterlife | 4 | 3 | Positive reframing |
| A4. Conviction that death is part of life | 2 | 1 | Acceptance |
| A5. Fellow believers being engaged in spiritual activities on behalf of the patient | 2 | 2 | Feeling connected with fellow believers |
| A6. Experience of light | 2 | 1 | Allowing feelings of fear and misery |
| A7. Receiving a spiritual message | 5 | 2 | Positive reframing such that the situation becomes tolerable |
| B1. Praying | 5 | 4 | Expression of negative emotions<br>Viewing problems from some distance<br>Reducing self-focus and worry while producing a calming effect |
| B2. Being in church | 2 | 1 | Reducing self-focus and worry while producing a calming effect |
| B3. Meditation, contemplation, yoga | 7 | 3 | Viewing problems from some distance<br>Reducing self-focus and worry while producing a calming effect<br>Acceptance |
| B4. Putting situations in the light | 2 | 1 | Positive reframing such that the situation becomes tolerable |
| B5. Contact with spiritual care provider | 2 | 2 | Feeling connectedness with fellow believers<br>Support from the transcendental confidant<br>Positive reframing |
| C1. Spirituality—general | 2 | 2 | n.a. |
| C2. Spirituality did not help | 3 | 3 | n.a. |

[a] The sum of this column is larger than the total of 59 interview fragments, as some fragments fell into more than one category

[b] Number of participants whose interview fragments fell into a particular category

A. Experiences or convictions

B. Activities

C. General

choose how to deal with this. That it's a kind of task of yours. Of how you deal with the things that cross your path. So I think it's a challenge to view that [the cancer] positively and optimistically. And to carry out that message.

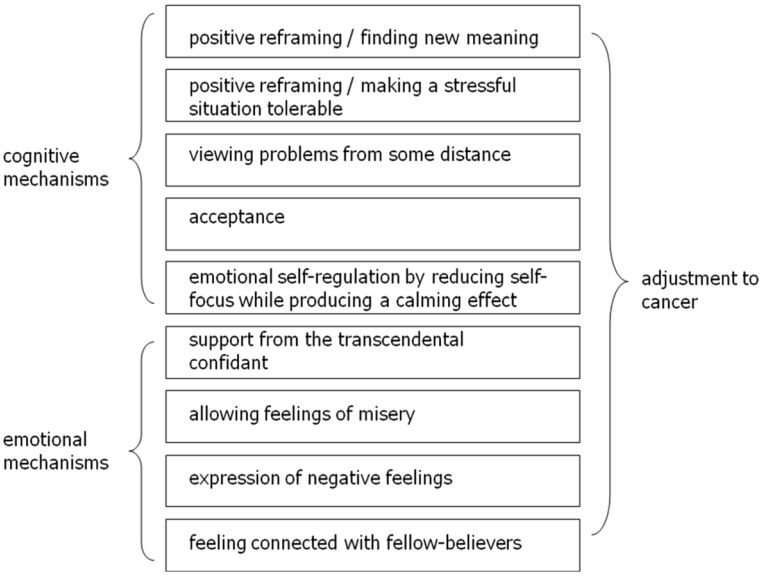



**Fig. 2** Suggested psychological mechanisms that might explain how spirituality helps patients to adjust to their disease

Interpretation: In the coping literature, this way of thinking is labeled 'reframing' or 'positive reinterpretation.' Conceiving of cancer as a task makes the illness meaningful because it has 'come across your path' to learn from, deepen your belief or pay more attention to the important things in life. It thus fits into the first mechanism of James and Wells.

A2. The experience of, or a belief in a personally interested and supportive God. This category includes most fragments: 18 out of the 59 fragments, though they were derived from only four of the ten interviews. The interviewees described how God helped them by listening and comforting:

> I think that I was much less preoccupied with anxiety…. Sometimes, I found it dead scary, terribly tense, but I have someone to whom I can hold. I am a Christian for more than thirty years now and He has never let me down. Why would he do that now?
>
> Once I discussed it [the disease] with someone, who said 'I would be quite nervous if I were you. Why aren't you?' Well, to be honest, I sometimes lie awake at night, but God is always awake. Then I think we are awake together, and then I can pray, pray for all those people who come to my mind. Because I was no longer preoccupied with myself but with those other people and because I was engaged with God, I became so calm that I fell asleep again.

The interviewees rarely indicated that they asked God to cure them from cancer. The relation with God was seen as a collaborative one; one has to take action oneself, but God will help when asked to do so. Though God is not always seen as directing one's life, he decides about life and death: 'He could just as well have plucked me out of it, He would then say 'You, come to me, it has been enough' (…) but he allows me more life.'

Interpretation: This category seems to refer to the image of a father who listens to your problems and offers support and comfort. This 'Father-in-Heaven' is asked for emotional support and—only in rare cases—for instrumental help. Some interviewees described His emotional support in physical terms, similarly to what an ideal human father would do: 'God will catch me when I fall and dry my tears when I cry' or 'when I feel anxious or desperate, he will hold his arms under me.' This conviction gives certainty, trust, and inner strength, similarly to the effects of knowing that a human father will always help and support you. Without being disrespectful, one might suggest that the positive effects of the experience of and the belief in a personally interested and helping God are in line with the positive effects of having one or more confidants here on earth. We have, therefore, attached the label 'support from the transcendental confidant' to this category.'

A3. Belief in an afterlife. Persons who mentioned a 'belief in an afterlife' often indicated that such a belief makes present problems less important and reduces a fear of death:

> Everything works out, even if I hear 'your life will only last another three months'. Then it is also all right, you know, because if you have a living faith in the Lord Jesus you know you have an eternal life.

Only one person had a non-religious view of an afterlife: 'Even if I would die from cancer, I still wouldn't be afraid of it, because then you take off this coat and you go on—that's how I see it—you go from one dimension into another one.'

Interpretation: For the persons interviewed for this study, the 'belief in an afterlife' subdued a fear of death. The conviction that one is prepared for a better life during the present life will also put current problems in a milder perspective. It is certainly not identical, but seems comparable to the coping style of 'seeing things in a positive light.' In a situation that is rather burdensome, it helps to look forward to a brighter and lighter future. This category also fits into the first idea from James and Wells of religious beliefs guiding appraisals of life events—in this case impending death—enabling individuals to find meaning in stressful life events that are otherwise difficult to explain.

A4. Conviction that death is part of life. Fragments from one interview fell into this category. The participant said: 'I won't live to a hundred years, I think. So yes, I think about that just very realistically, I mean, the second time [that she was diagnosed with cancer] I had the strong feeling of 'O, this was it' and I just felt it is a part of life.'

Interpretation: This conviction might seem related to the previous one, but this notion implies the acceptance of the fact that one's personal life will come to an end, whereas belief in an afterlife implies the continuation of one's life in another form. The truism that one's life will end is, of course, in itself not spiritual. Instead, to be aware of the finiteness of one's personal life and to integrate this awareness into one's thinking are considered spiritual.

A5. Fellow believers being engaged in spiritual activities on behalf of the person. This category includes citations such as:

> So, I also received postcards with 'Well, we will pray for you' and 'We will pray that our prayers go with you into the operating room.' Well, I kept those thoughts with me…. That surgeon drew very precisely how she would do all that. And then I said to her, do you know that people will be praying for you?… Yes, you pray for yourself and you are not dependent on their prayers, but it gives extra courage, like doing an exam and everybody is thinking of you.

Interpretation: The knowledge that 'fellow believers are engaged in the same spiritual activities' led to a feeling of connectedness with other people, which supported the patient's emotionally when they had to endure unpleasant medical procedures.

A6. Experience of light. One participant described an 'experience of light' that came after an episode of somberness and desolation. This experience resulted into her letting go of the fear of death and the (wish to have) control over life and death.

> In that period, I have been anesthetized three times in a short period. And each time I had nightmares for a week…. I would wake up panicky with sweating and trembling. I couldn't move and was absolutely sure I would die at that moment. Then I heard two weeks after surgery that the cutting surfaces were not totally clean and that I needed radiotherapy. 'Till that moment I had the feeling I was totally in control and was prepared for anything…. This I had not foreseen. And somehow, in the midst of that misery, in that terribly dark gloom I thought 'yes that might be, but I am still alive and now I can make the choice: or I can go with the gloom and become a very sad woman, or I can think 'Hey, I am still alive'…. That was a kind of, just a little stream of water with light in it.

Interpretation: One might guess that this experience involves a process of allowing feelings of fear and misery, ultimately leading to a sense of acceptance and relief. Allowing feelings of fear and misery can be compared to the flooding procedure in behavioral therapy.

A7. Spiritual message received. This message could come from the personally involved and helping God. Whereas prayer implies that the person actively contacts God, the spiritual message is experienced as having been sent from the outside:

> But really, panic struck me. I thought to myself 'I have to go anyway', and went with trembling legs to that X-ray department…. It was really difficult; it literally seized me by the throat. I was so upset that I could not even swallow a sip of water. Then I was waiting in that cabin, all on my own. And I was thinking 'Oh, what if it is wrong again?' Suddenly there was: 'You have searched me, LORD, and you know me, Psalm 139'… It was there simply and suddenly and I thanked God for that, because I didn't have it in me at that moment. But He gave that to me then…. You know it completely. If it is good. You already know. If it is wrong, You know it already.

The message could also be non-religious and come from a human being:

> About a week before I would receive the first chemotherapy, I was extremely anxious then…. I was outside cleaning my windows (…) and then the neighbor from across the street walked up to me and said to me: … 'Yes, man suffers most from the suffering he fears'. Oh, then I really felt that she was sent to me. I needed to hear that, because, indeed, I was driving myself crazy with something that was not at all happening yet.

Interpretation: The participants described having received a message that was strikingly appropriate for the situation they were in. This spontaneity and relevance might have contributed to their belief that the message had been sent by the transcendent. The message fit into ('triggered') the spiritual beliefs of the person. From the examples given, one cannot conclude that this re-appraisal of threatening situations lead to experiencing the situations as meaningful, but rather as tolerable.

## Spiritual Activities

B1. Praying. The relation with the helping God was experienced during prayer: 'Yes, I pray about what is troubling me, or about problems I have no answer for at that moment; that

you can leave your problems with someone.' Sometimes, prayer did not have the character of presenting specific problems to God, but more of being in His trustful presence:

> I mean, you could lie awake in your bed for hours, but if I then – this might sound very stupid – for instance if I just spent some time in bed praying then I notice I become quite peaceful. I could have taken a sleeping pill, but that is quite unnecessary then. That trust, and then falling asleep, that is wonderful, yes.

Asking God for direct interference in one's life was viewed as appropriate by some, but inappropriate by others: 'Yes indeed, we have asked in prayer whether God would cure me' or 'it is actually praying what I do, the Lord's prayer and such, but not 'please let it happen that my daughter stops using drugs.'

Interpretation: Praying seems comparable to the 'emotional expression' of negative feelings and thoughts to a confidant. Though praying might involve more than telling one's misery to God, such as worshipping or asking for advice, these other themes were not mentioned in the interviews. Instead, patients said for instance: 'By praying I could get rid of my troubles.' Telling one's problems to God or to another person has two potentially positive consequences. First, one will receive sympathy and comfort. Second, personal problems are 'externalized.' Telling your sorrows to the transcendental confidant creates some distance from one's troubles, also because they are seen through His eyes. Viewing problems from some distance will lessen their impact and will free one's mind for considering cognitive or behavioral adjustments.

Only once did an interviewee describe her prayer in a different form: 'When I am lying awake at night, I sometimes say a well-known prayer. It gives me the trust of 'it will turn out well' and I fall asleep quietly.' This seems comparable to saying a mantra and seems different from emotional expression. This form of 'calming' prayer thus seems to fit into the second mechanism from James and Wells of a spiritual activity implying self-regulation by reducing self-focus and worry while producing a calming effect.

B2. Being in church. One participant said she went to church to be in a serene, peaceful environment and to be in contact with God: 'I didn't even go to church more often, but at the moments I was there it did me a lot of good. Just the silence, to repent and also to trust you're on the right path.'

Interpretation: People might go to a church for different reasons: because of the comforting and serene environment, to meet God, to speak to the chaplain or priest, or because they like to be with fellow believers. This category applied to one person who indicated that being in church brought calmness and comfort, and that in church she could leave her worries with someone. One might conclude that going to church had the self-regulatory effect of reducing self-focus and worry while producing a calming effect.

B3. Meditation, contemplation, and yoga. Some participants deliberately undertook activities such as meditation, yoga, or contemplation to calm down, to create some distance from their situation, or to cope with physical problems: 'Spirituality is in the moments of calmness or reflection (…) to list all the points in your head, to relax and just be with yourself for a while.'

> I was really knocked out for a week. Then I was just lying in the bedroom waiting for it to be over (…), terribly sick (…), then I would do a kind of Yoga exercises, just breathing and thinking 'it is what it is, it will pass' (…) that helped me to get through.

Interpretation: These categories are all activities aimed at quieting inner turmoil and promoting inner rest. It thus fits into the idea from James and Wells of a self-regulation

mechanism. Meditation and contemplation can also involve looking at what is happening in one's life in a non-judgmental way and from some distance.

B4. Placing situations in the light. This was described by one participant. It implied visualizing a bright light on a situation, which she learned in a spiritual group.

> I did a training some years ago mainly about working with light, light around you, to attract the positive. How can I explain?… For instance, I had to have an injection in my uterus or something like that, the day before surgery. They said 'You will have a very unpleasant injection, it will hurt gigantically and apologies in advance'…. I did that exercise and the doctor asked 'don't you feel anything?' No 'We are already finished. Haven't you felt anything, how is that possible?'

Interpretation: This activity implied imagining an ideal situation when in trouble and believing that this will 'attract' good things. It can also be interpreted as another example of spirituality guiding the appraisal of a stressful situation such that it became more tolerable.

B5. Contact with a spiritual care provider. The fragments suggested that the negative psychological effects of the disease and its treatment were reduced, because a spiritual care provider could relate to the transcendental framework of the patients' view on the event. The care provider was a pastor for one person and a spiritual healer for another person:

> I know about the ways of many things in my head, but I could never feel it well…. So, I had made an appointment with that lady to help me with that…. And I saw her, which was – there is no such thing as coincidence – on the morning that I was diagnosed, though our appointment was made two months earlier. So we felt it was meant to be. And then she gave me the healing. I have to say it was very special, because you feel all kinds of things, tingling and energy waves, whereas I could not feel anything before. The funny thing is, I stepped outside and the whole world seemed brighter and more intense, the light was different, and as if the birds sang louder.

Interpretation: The contact could imply several of the working mechanisms mentioned before, such as stimulating the experience of/belief in a personally interested and helping God or the experience that fellow believers are engaged in the same spiritual activities, dependent on the activities of the priest or healer.

### Spirituality: General

These remaining two categories did not refer to any specific working mechanism.

C1. Spirituality: General. In some fragments, the interviewees spoke of their spirituality in general having been helpful, such as 'If I hadn't had my faith during this period, or just had not had it anyhow, I would not have known how to deal with it. It has supported me tremendously'

C2. Spirituality did not help. Though our selection procedure implied that every participant spoke of the helpful role of spirituality, some fragments indicated that this was not always the case:

> I am religious and then you think to yourself 'He let me down'. Is there a special meaning in it, or something? (…) At a certain moment, I was also very sad and angry because of how other people life their lives; they live from one day to the next; they eat unhealthy and so on. You think to yourself 'Why me?' (…) I have also spoken

with the reverend, who visited me here at home before I started with chemotherapy. And he said'He [God] is not responsible [for getting cancer] (…) and I hadn't understood.

## Discussion

The aim of the present study was to understand how spirituality helps cancer patients to cope with their disease. To that end, we have interviewed patients and have selected ten interviews that—according to independent raters—showed a supporting role of spirituality. The qualitative analysis of these ten interviews yielded several spiritual attitudes, behaviors, or processes that aided the patients in their adjustment to cancer, which could be subsumed under fourteen categories.

Several of our categories fitted into existing concepts. See also Fig. 2. The interview categories 'viewing cancer as a task' and 'belief in afterlife' gave support to the idea of James and Wells that spirituality guides appraisals of life events by enabling individuals to find new meanings in stressful life events that are otherwise difficult to explain (James and Wells 2003). The categories 'receiving a spiritual message' and 'putting situations in the light' indicate a different type of re-appraisal in which a situation is not explained, but re-evaluated in a brighter, more positive way. We have distinguished two other cognitive mechanisms, which can be labeled as re-appraisals but are not mentioned by James and Well, namely 'viewing problems from some distance' and 'acceptance.' Viewing problems from some distance can be an element of 'praying.' 'Conviction that death is part of life' implies acceptance, which can also be part of 'mediation etc.'

The second cognitive process described by James and Wells, the self-regulation mechanism, applied to our categories 'praying,' 'being in church' and 'meditation .'

We have ascertained several spiritual mechanisms not mentioned by James and Wells. Emotion-focused mechanisms, which James and Wells explicitly did not take into account, appeared important in our interviews. Examples are 'experiencing a personally interested and helping God' and 'praying.' Both categories can be summarized under the heading 'support from the transcendental confidant.' Our participants might have found new meaningful interpretations of their present situation in their contact with God, but the prominent feature was the emotional component of receiving comfort from a God who listens. Our characterization of experiencing a personally interested and helping God and of praying is—of course—not original and can, for instance, be found in the description of the 'relationship with God' of Gall and Cornblat (Gall and Cornblat 2002), and of 'prayers for comfort' of Levine et al. (Levine et al. 2009). The emotional element could also be seen in the suggested psychological mechanisms of 'allowing feelings of misery' and 'expression of negative emotions' (in prayers).

In developing the RCOPE, Pargament et al. distinguished five religious functions in coping: (1) to give meaning to an event, (2) to achieve a sense of mastery and control over difficult situations, (3) to provide comfort during times of difficulty, (4) to provide intimacy with other likeminded people, and (5) to assist people in making major life transformations (Pargament et al. 2000). Three functions—1, 3, and 4—can be easily recognized in our categories. Function 2 of Pargament et al. is represented by items such as 'worked together with God as partners' and 'prayed for a miracle.' Items like the first one fit in with our category experiencing a personally interested and helping God. Activities represented in items like the second one—'prayed for a miracle'—were not mentioned by

our participants. None of our participants spoke about a life transformation induced by the disease as suggested by the fifth function, be it that for some participants their spiritual attitude was intensified. Altogether, most of the functions distinguished by Pargament et al. can also be found in our categories.

Qualitative studies are not suited to exclude possible explanations, but are used to find new possible hypotheses. Yet, it is remarkable that none of the participants mentioned that they had experienced social support through church attendance and other organized activities with fellow believers. Going to church was done for other reasons, finding peace and comfort and contact with God. Contact with fellow believers was mentioned, but the helpful aspect was 'feeling connected because fellow believers engage in spiritual activities on behalf of the patient,' not social support in general.

The small number of participants and the use of a selective sample could be considered drawbacks of our study. However, these characteristics are inherent to a qualitative study. Our study is purposely based on a selective sample: We included only cancer patients who scored at least moderately high on a spirituality questionnaire and whose interviews—according to three independent raters—showed that spirituality has at least to some degree helped in coping with cancer-related problems. It is evident that the findings of the present study mainly reflect the viewpoints of women. Only one man (10 %) was included in the sample of the present study, which was mainly due to the composition of the total sample of which only 26 % was male.

The outcome of a qualitative study will partly depend on the viewpoints of the researchers themselves with respect to the research question. The consensual qualitative research (CQR) method offers some protection against a biased position, because several evaluators independently judge the material, followed by a discussion of possible differences and the formulation of a consensual opinion. Though all three researchers are interested in spirituality, one is a religious person, one an agnostic and one an atheist, which gives some guarantee against a biased position. The definition of spirituality that was used in this study was rather broad, as described in the Introduction.

A recurring point of discussion was whether a citation described an effect of spirituality or not. For example, the fragment 'I trust that everything will turn out all right' raised a discussion, because we have considered 'trust' as an aspect of spirituality (de Jager Meezenbroek et al. 2012), but the word is also often used in common language with a non-spiritual intent. If the interviewee had not presented additional information, the fragment was rejected as not reflecting a role of spirituality. This was also done when the trust of the person was based on his or her previous experiences of being capable of dealing with difficult situations. However, if the trust implied a role of God who is expected to put one's life on the right trail, or if a person accepts his or her fate whatever it brings, the fragment was accepted as reflecting a role of spirituality.

On the basis of theory and interpretation of our own data, we arrived at the following themes that can explain the effect of spirituality on adjustment to cancer-related problems: (1) appraisals of disease-related events, enabling individuals to find meaning in stressful life events that are otherwise difficult to explain, (2) appraisals of disease-related events presenting a new meaning to one's suffering that makes a threatening situation tolerable, (3) viewing problems from some distance, (4) acceptance, (5) emotional self-regulation by reducing self-focus and worry while producing a calming effect, (6) support from the transcendental confidant, (7) allowing feelings of misery, leading to relieve, (8) expression of negative feelings (in prayers), and (8) feeling connected with fellow believers. Several of these themes concern cognitive mechanisms (categories 1-5), but there is also an important emotional component in spirituality (categories 6-9). Spirituality thus offers

people with cancer several ways to deal with meaning(lessness) and with the greater problems in life.

The aim of the present study was to unravel the spiritual mechanisms that help people in their adjustment to the disease. What clinicians might learn from this study is that patients use a diversity of spiritual sources. This includes the often mentioned process of finding meaning, but also the direct comfort and the certainty of being heard in prayers. Certain spiritual behaviors also help people to express negative feelings and to place problems at some distance, which makes these problems more manageable, and spiritual behaviors may create silence and peace of mind. If problems seem overwhelming some people may turn to the 'confidant in heaven,' while other people follow the more solitary path of allowing feelings of misery. Professionals in spiritual care should have an open mind for this variety of spiritual coping mechanisms.

**Acknowledgments** This work was financed by the Dutch Cancer Society; Grant Number HDI 2008-4076.

## References

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61*, 461–480.

Baetz, M., & Toews, J. (2009). Clinical implications of research on religion, spirituality, and mental health. *Canadian Journal of Psychiatry: Revue Canadienne de Psychiatrie, 54*, 292–301.

Blow, A. J., Swiecicki, P., Haan, P., Osuch, J. R., Symonds, L. L., Smith, S. S., et al. (2011). The emotional journey of women experiencing a breast abnormality. *Qualitative Health Research, 21*, 1316–1334.

Chiu, L., Emblen, J. D., van Hofwegen, L., Sawatzky, R., & Meyerhoff, H. (2004). An integrative review of the concept of spirituality in the health sciences. *Western Journal of Nursing Research, 26*, 405–428.

de Bruin, E. J., van Dijk, M., & Duivenvoorden, H. J. (1996). Assessing adjustment to cancer: The Health and Disease Inventories (HDI) Lisse: Swets & Zeitlinger.

de Jager Meezenbroek, E. C., Garssen, B., van den Berg, M., Tuytel, G., van Dierendonck, D., Visser, A., et al. (2012). Measuring spirituality as a universal human experience: Development of the Spiritual Attitude and Involvement List (SAIL). *Journal of Psychosocial Oncology, 30*, 141–167.

Dyson, J., Cobb, M., & Forman, D. (1997). The meaning of spirituality: A literature review. *Journal of Advanced Nursing, 26*, 1183–1188.

Elkins, D. N., Hedstrom, L. J., Hughes, L. L., Leaf, J. A., & Saunders, C. (1988). Toward a humanistic phenomenological spirituality. Definition, description, and measurement. *Journal of Humanistic Psychology, 28*, 5–18.

Gall, T. L., & Cornblat, M. W. (2002). Breast cancer survivors give voice: A qualitative analysis of spiritual factors in long-term adjustment. *Psycho-Oncology, 11*, 524–535.

George, L. K., Larson, D. B., Koenig, H. G., & McCullough, M. E. (2000). Spirituality and health: What we know, what we need to know. *Journal of Social and Clinical Psychology, 19*, 102–116.

Hackney, C. H., & Sanders, G. S. (2003). Religiosity and mental health: A meta-analysis of recent studies. *Journal for the Scientific Study of Religion, 42*, 43–55.

Hill, C. E., Knox, S., Thompson, B. J., Williams, E. N., Hess, S. A., & Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counseling Psychology, 52*, 196–205.

Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist, 58*, 64–74.

Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. *Counseling Psychologist, 25*, 517–572.

Howden, J. W. (1992). Development and psychometric characteristics of the Spirituality Assessement Scale Ann Arbor (Texas Woman's University): UMI Dissertation Services.

Hungelmann, J., KenkelRossi, E., Klassen, L., & Stollenwerk, R. M. (1985). Spiritual well-being in older adults: Harmonious interconnectedness. *Journal of Religion and Health, 24*, 147–153.

James, A., & Wells, A. (2003). Religion and mental health: Towards a cognitive-behavioural framework. *British Journal of Health Psychology, 8*, 359–376.

Koenig, H. G., & Larson, D. B. (2001). Religion and mental health: Evidence for an association. *International Review of Psychiatry, 13*, 67–78.

Levine, E. G., Aviv, C., Yoo, G., Ewing, C., & Au, A. (2009). The benefits of prayer on mood and well-being of breast cancer survivors. *Supportive Care in Cancer, 17*, 295–306.

Mahoney, M. J., & Graci, G. M. (1999). The meanings and correlates of spirituality: Suggestions from an exploratory survey of experts. *Death Studies, 23*, 521–528.

Pargament, K. I., Cole, B., Vandecreek, L., Belavich, T., Brant, C., & Perez, L. (1999). The vigil: Religion and the search for control in the hospital waiting room. *Journal of Health Psychology, 4*, 327–341.

Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development anl initial validation of the RCOPE. *Journal of Clinical Psychology, 56*, 519–543.

Reed, P. (1992). An emerging paradigm for the investigation of spirituality in nursing. *Research in Nursing & Health, 15*, 349–357.

Riley, B. B., Perna, R., Tate, D., Forchheimer, M., Anderson, C., & Luera, G. L. (1998). Types of spiritual well-being among persons with chronic illness: Their relation to various forms of quality of life. *Archives of Physical Medicine and Rehabilitation, 79*, 258–264.

Sandelowski, M. (1996). Using qualitative methods in intervention studies. *Research in Nursing & Health, 19*, 359–364.

Sawatzky, R., Ratner, P. A., & Chiu, L. (2005). A meta-analysis of the relationship between spirituality and quality of life. *Social Indicators Research, 72*, 153–188.

Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129*, 614–636.

Spinhoven, P., Ormel, J., Sloekers, P. P. A., Kempen, G. I. J. M., Speckens, A. E. M., & van Hemert, A. M. (1997). A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects. *Psychological Medicine, 27*, 363–370.

Thune-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., & Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Social Science and Medicine, 63*, 151–164.

Visser, A., Garssen, B., & Vingerhoets, A. (2010). Spirituality and well-being in cancer patients: A review. *Psycho-Oncology, 19*, 565–572.

Yonker, J. E., Schnabelrauch, C. A., & Dehaan, L. G. (2012). The relationship between spirituality and religiosity on psychological outcomes in adolescents and emerging adults: A meta-analytic review. *Journal of adolescence, 35*, 299–314.