


## Article

# Spiritual/Religious Coping of Women with Breast Cancer

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Received: 19 October 2017; Accepted: 16 November 2017; Published: 18 November 2017

**Abstract:** This research aimed to evaluate the level of Spiritual/Religious Coping (SRC) of women with breast cancer. This is a quantitative, descriptive, cross-sectional study. A total of 94 mastectomized women who participated in the study were enrolled in a rehabilitation center of a higher education institution of São Paulo. Data were collected from October 2013 to June 2014 using a questionnaire with sociodemographic, clinical, and spiritual/religious data, stressor stimulus associated with breast cancer, and the SRCOPE-Short Scale. All participants used SRC, 76.6% at high/very high level, and 23.4% at medium level; positive SRC (mean 3.41; standard deviation 0.59) was more used than negative SRC (mean 1.27; standard deviation 0.40), confirmed by the NSRC/PSRC ratio (mean 0.38; standard deviation 0.14). The SRC proved to be an important coping strategy in stress situations experienced by women with breast cancer and helpful in coping with the disease and the consequences of the treatments.

**Keywords:** breast neoplasms; women's health; psychological adaptation; spirituality; religion

## 1. Introduction

The progress in the fields of health and technology promotes an increase in survival and an improvement in the quality of life of women affected by breast cancer. However, traditional therapies (chemotherapy, radiotherapy, and hormone therapy) cause undesirable side effects, such as: nausea, vomiting, loss of appetite, pallor, body weight alterations, and fatigue, among others (Bonassa and Gato 2012). Another example is the surgeries, sometimes mutilating, which can cause lymphedema, decrease in arm and shoulder amplitude, pain, and other complications, even harming the activities of daily life (Fangel et al. 2013).

In this way, the body changes resulting from these treatments can be traumatic for women, making it difficult to manage this situation, and can lead to emotional and spiritual damage, potentializing the moment of fragility experienced (Mistura et al. 2011). Therefore, these women need to adapt to both the disease and the treatment and also to the many physiological, psychosocial, and spiritual problems arising from them. As a result, many women cling to faith, religiosity, and spirituality as a way to find support and relief for their suffering.

Definitions of spirituality and religiosity have been used in the context of health, but described as complex and such definitions are often mistaken or applied as synonyms. However, in general, they are considered complementary but distinct concepts (Brito et al. 2013). Spirituality refers to a dimension that joins individual and universal aspects, acts in a dynamic way, integrates the multiple dimensions that the word translates, gives support to individuals in their lived experiences, and taking an important relevance in situations of illness, besides assigning meaning to people's existence (Caldeira et al. 2011). Religiosity, however, refers to the religious practice, which can cause changes in the individuals' behavior and actions, and is related to personal experiences, being strictly conditioned to dogmas and doctrines and practiced through sacred readings and ceremonies (Jafari et al. 2013).

Regarding health-related spirituality, the Brazilian National Cancer Institute José Alencar Gomes da Silva (INCA) affirms that there is scientific evidence that individuals respond better to treatment when seeking for spiritual support, especially in cases of cancer, in which physical and emotional debilitation is intense. The Brazilian Ministry of Health recommends that the scientific community recognize the importance of the spiritual dimension in the individual responses to treatment, which is related to the patient adherence and trust in the healthcare team (Ministério da Saúde-INCA 2010).

The search for religious/spiritual support by patients with chronic diseases, such as cancer or other serious stressor stimulus, has become increasingly frequent in the healthcare services, which require healthcare professionals to be prepared to provide assistance that overcomes the biomedical vision of care and includes all the biopsychosocial and spiritual dimensions of patients (Arrieira et al. 2011). Therefore, from a holistic and patient-centered care perspective, attention to spirituality and religiosity is being increasingly understood as an integral part of health care (Nascimento et al. 2013). In stressful situations, patients can resort to Spiritual/Religious Coping (SRC), defined as the use of religious beliefs and behaviors to facilitate problem solving and to prevent or relieve the negative emotional consequences of stressful life circumstances (Pargament 1997; Koenig et al. 1998). The use of SRC as a coping strategy may result in positive or negative factors of adjustment that merge to be classified as Positive SRC (PSRC) and Negative SRC (NSRC) (Pargament 1997), ranging from none or insignificant (1.00 to 1.50) to very high (4.51 to 5.00). Brazilian researchers (Panzini and Bandeira 2005) state that the PSRC comprehend strategies that provide a beneficial effect to the practitioner, such as seeking God's love/protection or a greater connection with transcendental forces, seeking help/comfort in religious literature, seeking forgiveness and being forgiven, praying for the well-being of others, solving problems in collaboration with God, and redefining the stressor as beneficial. However, the NSRC is identified as comprehending strategies that generate detrimental/negative consequences for the individual, such as questioning God's existence, love, or acts, delegating problem solving to God, feeling dissatisfaction/displeasure with God or frequenters/members of a religious institution, and redefining the stressor as divine punishment or evil forces (Panzini and Bandeira 2007). A study indicated that the negative factors have a great influence in the adaptation of the individual to the stressor stimuli and require attention from the healthcare professionals in the management of these repercussions (Veit and Castro 2013). Despite the importance of including spirituality and religiosity in the health care for cancer patients, it is still unclear how to provide this care, even among health professionals and the multidisciplinary team, which often ends up being associated only to religious support (Nascimento et al. 2013).

Reinforcing the importance of studies in this area, it was observed in an international research that SRC helped positively to cope with difficult and stressful situations during breast cancer treatment, which leads to the need of health professionals to consider the benefits of this support as a coping strategy for the disease (Thuné-Boyle et al. 2013). However, studies on SRC as a coping strategy in difficult situations of life are still little analyzed in Brazil. Therefore, exploring better the SRC strategy and evaluating the level of SRC, according to its classification, used in the response of patients submitted to breast cancer treatment, is relevant to contribute to the investigation of this topic in the Brazilian context and to make possible the expansion of studies published in this area and the perspective of interventions that may result in better health and well-being outcomes.

The aim of this study was to evaluate the level of spiritual/religious coping used by women submitted to breast cancer treatment.

## 2. Results

All 94 women who participated had a mean age of 59.50 years (min = 53 years and max = 85 years, standard deviation = 11.04). Most of them, 57.4% ( $n = 54$ ), were married, and 74.5% ( $n = 70$ ) did not complete elementary school. Regarding the occupation, both before and after breast cancer, the most reported was “homemaker” (42.5%,  $n = 40$  before and 56.3%,  $n = 53$  after). Most of the women practiced some leisure activity, 85.1% of them ( $n = 80$ ) before breast cancer and 88.3% ( $n = 83$ ) after becoming sick.

The mean time of diagnosis was 52.62 months (standard deviation = 62.55). The most used surgical approach was mastectomy (69.2%,  $n = 65$ ). The mean time patients underwent surgery was 45.71 months (standard deviation = 60.79).

With regard to chemotherapy, 71.2% ( $n = 67$ ) of the participants underwent this treatment. The minimum treatment time was one month, and the maximum was 325 months (mean = 43.8 and standard deviation = 58.5). Relative to hormone therapy, 43.6% ( $n = 41$ ) of women underwent it. The minimum treatment time was one month, and the maximum was 168 months (mean = 70.4 and standard deviation = 56.7). Radiotherapy, however, was performed in 50.0% ( $n = 47$ ) of participants. The minimum time was one month, and the maximum was 325 months (mean = 68.6 and standard deviation = 69.8).

When questioned about the sequelae resulting from breast cancer treatment, more than half of the women, 63.8% ( $n = 60$ ) claimed to present one or more and pain was the predominant one (61.7%).

Regarding their religion, most of the women (60.6%,  $n = 57$ ) declared themselves Catholic. In this study, 66.0% ( $n = 62$ ) participated in spiritual/religious activities, and 39.4% ( $n = 37$ ) answered that they did it at least once a week. Spirituality/religiosity was very important for 92.6% ( $n = 87$ ) in this moment of life. Among the stressor stimuli associated with breast cancer, family conflict was the most frequent, corresponding to 48.9% ( $n = 46$ ).

The participants of this study used the SRC, and the mean of the Total SRC score was 3.81, a value considered high according to the adopted parameters (high: 3.51 to 4.50). The use of SRC occurred at a high/very high level (very high: 4.51 to 5.00) for 76.6% of the women and for 23.4% at a medium level (2.51 to 3.50). Referring to PSRC, there was greater use (mean = 3.41) compared to NSRC (mean = 1.27).

In addition, the mean of NSRC/PSRC ratio was 0.38 (Table 1).

**Table 1.** Distribution of the participants of a rehabilitation center for mastectomized women, according to the values of Positive Spiritual/Religious Coping (PSRC), Negative Spiritual/Religious Coping (NSRC), NSRC/PSRC ratio, and Total Spiritual/Religious Coping (SRC) scores. Ribeirão Preto, SP, Brazil, 2013–2014 ( $n = 94$ ).

Variables	Minimum	Maximum	Mean	Median	Standard Deviation
PSRC	1.56	4.76	3.41	3.44	0.59
NSRC	1.00	3.40	1.27	1.13	0.40
NSRC/PSRC ratio	0.23	0.98	0.38	0.35	0.14
Total SRC	2.53	4.76	3.81	3.84	0.42

### *Analysis of Total SRC, PSRC, and NSRC Scores Related to the Variables that Presented Significant Difference*

The mean values of Total SRC had a significant difference in the comparison with the variables “Chemotherapy” ( $p = 0.012$ ), “Participation in spiritual/religious activity” ( $p = 0.001$ ), “Frequency of participation in the spiritual/religious activity” ( $p = 0.002$ ), and “Degree of importance of spirituality/religiosity in their moment of life” ( $p = 0.032$ ). This did not occur in the comparisons of Total SRC with other investigated variables (Age, Marital Status, Schooling, Current and pre-breast cancer occupation, Current and pre-breast cancer leisure, Hormone therapy, Radiotherapy, Type of

surgery, Treatment sequelae, Time of diagnosis and surgery, Religion and Stressor stimulus associated with breast cancer) (Table 2).

**Table 2.** Distribution of the participants of a rehabilitation center for mastectomized women, according to the comparison of Total SRC with the statistically significant variables. Ribeirão Preto, SP, Brazil, 2013–2014 ( $n = 94$ ).

Variables	<i>n</i>	Minimum	Maximum	Median	Mean	Standard Deviation	<i>p</i>
Chemotherapy							0.012 *
Yes	67	2.5	4.8	3.92	3.87	0.44	
No	27	3.0	4.5	3.61	3.66	0.32	
Participation in spiritual/religious activity							0.001 *
Yes	62	2.98	4.69	3.91	3.91	0.37	
No	32	2.53	4.76	3.56	3.62	0.45	
Frequency of participation in the spiritual/religious activity							0.002 **
Never	25	2.53	4.76	3.51	3.57	0.46	
1 to 5 times a week	32	3.20	4.51	3.91	3.95	0.36	
1 to 2 times a month	37	2.98	4.69	3.90	3.86	0.38	
Degree of importance of spirituality/religiosity in their moment of life							0.032 *
Important	7	2.53	3.90	3.51	3.48	0.46	
Very important	87	2.86	4.76	3.86	3.84	0.41	

\* *t* Test; \*\* Anova; *n*: sample.

With regard to the comparison of the mean values of PSRC and NSRC scores with the investigated variables, a significant difference was found in the comparison of PSRC with the variables “Chemotherapy” ( $p = 0.011$ ), “Participation in spiritual/religious activity” ( $p = 0.004$ ), and “Frequency of participation in the spiritual/religious activity” ( $p = 0.011$ ) and NSRC with the variables “Participation in spiritual/religious activity” ( $p = 0.019$ ) and “Frequency of participation in the spiritual/religious activity” ( $p = 0.002$ ) (Tables 3 and 4).

**Table 3.** Distribution of the participants of a rehabilitation center for mastectomized women, according to the comparison of the values of PSRC scores with the statistically significant variables. Ribeirão Preto, SP, Brazil, 2013–2014 ( $n = 94$ ).

Variables	<i>n</i>	Minimum	Maximum	Median	Mean	Standard Deviation	<i>p</i>
Chemotherapy							0.011 *
Yes	67	1.56	4.76	3.56	3.51	0.61	
No	27	2.09	4.29	3.09	3.17	0.45	
Participation in spiritual/religious activity							0.004 *
Yes	62	2.09	4.59	3.53	3.53	0.54	
No	32	1.56	4.76	3.15	3.17	0.62	
Frequency of participation in the spiritual/religious activity							0.011 **
Never	25	1.56	4.76	3.09	3.14	0.64	
1 to 5 times a week	32	2.65	4.50	3.54	3.61	0.51	
1 to 2 times a month	37	2.09	4.59	3.50	3.42	0.57	

\* *t* Test; \*\* Anova; *n*: sample.

**Table 4.** Distribution of the participants of a rehabilitation center for mastectomized women, according to the comparison of the values of NSRC scores with the statistically significant variables. Ribeirão Preto, SP, Brazil, 2013–2014 ( $n = 94$ ).

Variables	<i>n</i>	Minimum	Maximum	Median	Mean	Standard Deviation	<i>p</i>
Participation in spiritual/religious activity							0.019 ***
Yes	62	1.00	3.40	1.07	1.21	0.37	
No	32	1.00	2.87	1.27	1.36	0.43	
Frequency of participation in the spiritual/religious activity							0.002 ****
Never	25	1.00	2.87	1.33	1.44	0.45	
1 to 5 times a week	32	1.00	3.40	1.07	1.26	0.47	
1 to 2 times a month	37	1.00	1.80	1.00	1.14	0.21	

\*\*\* Mann-Whitney test; \*\*\*\* Kruskal Wallis test.

### 3. Discussion

SRC seems to be an important coping strategy in stressful situations and in the healthcare context, helping women with breast cancer face the disease and the consequences of the treatments.

Practices related to the spiritual/religious as a coping strategy are often used by people in the daily life to deal with their personal problems, showing that the SRC can act in a complementary way for the benefit of those who use it (Panzini and Bandeira 2005), given the high level of use of the SRC evidenced in this study.

Participants who suffered the consequences of breast cancer and the chemotherapy, which involve physical and emotional spheres, resorted to the SRC and used it as a support to overcome the health problem in an attempt to maintain a positive attitude and then minimize the negative effects of the treatment. A study that proposed to identify strategies to support women during chemotherapy for breast cancer showed that although they were susceptible to emotional changes during treatment, they resorted to the SRC, such as faith in God and positive thoughts, as forms of support to overcome the disease and to face the chemotherapeutic treatment, aiming to revert negative feelings into positive ones, for their own benefit (Panzini and Bandeira 2005).

More than half of the women (66.6%) participated in some type of spiritual/religious activity, mobilizing a very high level of Total SRC (mean = 3.91) and greater use of PSRC (mean = 3.53) compared to women who did not participate. It is evident that the participation in spiritual/religious activities represents a beneficial resource that helps in the adjustment to the disease. Reinforcing this result, an international study showed that participating in spiritual/religious activities has provided comfort and has become an important support resource in coping with breast cancer (Lynn et al. 2014).

There was also a significant difference of NSRC scores in the comparison with the variable considered here ( $p = 0.019$ ), which indicates that women who participated in spiritual/religious activities presented a lower use of this coping (mean = 1.21) than those who did not participate. Therefore, it is possible to conclude that the participation in spiritual/religious activities denoted a support related to faith, regardless of the religion or the type of spiritual activity practiced, and helped women in a more settled coping with the disease and the treatment. Patients undergoing chemotherapeutic treatment showed that those who did not belong to any religion had a significant relation with NSRC, raising the hypothesis that the absence of participation in spiritual/religious activities and personal beliefs may be the cause of using NSRC during treatment (Mesquita et al. 2013). The authors emphasize the importance of spiritual/religious practices in difficult moments of life, considering that belief and activities related to spirituality/religiosity trigger positive emotions toward the treatment, minimizing its negative effects. These findings corroborate the results of the present research and emphasize that participating in some type of spiritual/religious activity, whether individual or collective, allows for better management of the stress situation experienced, stimulating the use of coping strategies, especially when there is relationship with cancer and its treatments.



Regarding the participation in spiritual/religious activities, the Total SRC was related to the frequency of these practices ( $p = 0.002$ ), since women who participated from one to five times a week used PSRC (mean = 3.61) more than those who did not attend (mean = 3.14). Women who did not participate in these activities presented a greater use of NSRC ( $p = 0.002$ ) (mean = 1.44).

The results allow us to affirm that, for most of the women in this study, participating regularly in activities related to religion/spirituality stimulated the use of SRC in a positive way, which could help them to cope with breast cancer and its treatments with more optimism and perseverance; data confirmed by other scientific studies (Kristeller et al. 2011; Geronasso and Coelho 2012).

Thus, in the present research, the participants spent more time on activities related to spirituality/religiosity and in a positive way, which may have helped them to cope with breast cancer and its treatments and to go through the stages of this process more easily.

Almost all participants (94.4%) reported that the use of spiritual/religious support as a means of coping with the disease was “very important”. The use of SRC (mean = 3.84) was verified, confirming that they considered spiritual/religious strategies very important for the best adjustment to the experienced moment. High scores of Total SRC and PSRC have been found to be related to the importance that participants in their research (chronic kidney patients) had given to spirituality/religiosity in their lives, suggesting that considering SRC strategies in health care planning is imperative (Valcanti et al. 2012). Reinforcing the importance of the meaning of the spiritual aspect in difficult moments of life, a study with adolescents undergoing cancer treatment reported that all participants used spiritual support as a coping strategy, thus showing that spiritual support is fundamental and very important during health rehabilitation (Souza et al. 2015).

Therefore, considering the context of breast cancer, it is evident that seeking comfort and strength in spirituality/religiosity during cancer treatment is a present form of encouragement, so necessary for women at this very vulnerable moment of their lives that can allow them to evolve, in the best possible way, towards the unfolding of the disease.

This study found significant comparisons of NSRC scores with the variables “Participation in spiritual/religious activity” and “Frequency of participation in the spiritual/religious activity” and the aforementioned study with oncologic patients (Souza et al. 2015) concluded that those who did not belong to any religion used negative coping factors, raising the hypothesis that the absence of participation in spiritual/religious activities and personal beliefs may be the cause of the use of negative factors of spiritual/religious coping during treatment (Mesquita et al. 2013).

Spiritual/religious practices seems important when living difficult moments in life, considering that belief and activities related to spirituality/religiosity trigger positive emotions toward the treatment, minimizing its negative effects (Mesquita et al. 2013). Health professionals, especially nurses, should be aware of the importance of planning spiritual interventions that could meet the needs of patients who seek this strategy as a way of coping (Swinton et al. 2011). In addition, when considering the disease as a stressor stimulus during breast cancer treatment, it is important to take into account the fact that other stressor stimuli may be evidenced and associated, damaging the woman and her family and creating conflict situations between them. Therefore, health actions should be planned in order to mobilize these women to use the SRC, which has proved to be an important alternative to deal with this set of stressful events.

The results indicate implications for clinical practice, since they have demonstrated the importance of health professionals to appropriate knowledge, skills, and attitudes that could help them to incorporate spiritual care in the planning and implementation of health care actions, especially of women with breast cancer.

Some limitations of this study were identified, such as the fact that a single place was used for data collection, as well as the reduced number of participants.

It is suggested that further research, such as those of multicenter and comparative character, be conducted using the SRC-Short Scale, which proved to be efficient to evaluate the level of SRC used by the investigated population.

#### 4. Materials and Methods

This is a quantitative, descriptive, and cross-sectional study conducted in a rehabilitation center of a higher education institution in an inland city of the state of São Paulo, which consists of a multiprofessional team including nurses, psychologists, physiotherapists, occupational therapists, and nutritionists, among others. This center offers activities aiming for the physical, emotional, social, and spiritual rehabilitation of women with breast cancer.

A query was made to the center database, which included 1196 enrolled women, and approximately 100 women were considered as potential participants of the study. At the end, 94 participants were included, according to the following criteria: women enrolled in the center at least once a month and over 18 years of age. Women with cognitive disabilities related to the items of the instruments of data collection and difficulties of orientation in time and space were not included.

Data were collected from October 2013 to June 2014. The participants were personally invited by one of the researchers responsible for this study, on the days and hours of operation of the rehabilitation service, or by telephone. The instruments were applied in the rehabilitation center, in a private room, with a day and time previously scheduled according to the participants' preference. Two instruments were used to collect data: (1) a questionnaire developed by the researchers and previously submitted to face and content validation, containing sociodemographic (age, marital status, schooling, occupation, and leisure) and clinical variables (time of diagnosis and surgery, type of surgery, treatments, and sequelae—lymphedema, difficulty of movement, pain), variables related to spiritual/religious activity (religion, participation in spiritual/religious activity, frequency of participation in the spiritual/religious activity, degree of importance of spirituality/religiosity in their moment of life), and stressor stimulus associated with breast cancer; (2) and the Spiritual/Religious Coping-Short Scale (SRCOPE-Short), with a descriptive question about stress, requesting a brief report of the greatest stress experienced during the breast cancer treatment. The SRCOPE Scale was translated, adapted and validated for the Brazilian culture by [Panzini and Bandeira \(2005\)](#), and comprises 87 items concerning Positive SRC and the Negative SRC. The SRCOPE Scale originated from the North American Scale *RCOPE SCALE—Spiritual/Religious Coping Scale* ([Pargament et al. 2000](#)). The summary version of the SRCOPE Scale, the SRCOPE-Short Scale, was also validated by [Panzini and Bandeira \(2005\)](#), which is used in this study and has 49 items grouped into 11 factors, of which seven are PSRC factors (Self-transformation and/or transformation of her life; Actions for spiritual help; Offering help to others; Positive attitude towards God; Search for the institutional other; Separation through God/religion/spirituality and Search for spiritual knowledge, totaling 34 items) and four NSRC factors (Negative reevaluation of God; Negative attitude toward God; Dissatisfaction with the institutional other and Negative reassessment of meaning, totaling 15 items). In order to identify the stressor stimulus that led to the need to cope through SRC, a descriptive question was included, which was adapted in this study to investigate stressor stimuli associated with breast cancer during the treatment of the disease. The authors who validated the scale in Brazil authorized the use of the instrument in this study. The scale items should be answered considering how the person acted in the specified stress situation. The scale aims to evaluate the positive and negative strategies of spiritual/religious coping before the stressor stimuli ([Panzini and Bandeira 2005](#)). The psychometric properties of this scale are adequate for its application in the Brazilian context and the summary version preserves the characteristics of the SRCOPE Scale (long version) ([Rodrigues and Polidori 2012](#)).

The data were analyzing according to POSITIVE SRC, relative to the level of positive spiritual/religious coping, obtained through the mean of the 34 questions of the PSRC Dimension. The values range from 1.00 and 5.00, and the higher the value, the greater the use of the positive SRC; NEGATIVE SRC, relative to the level of negative spiritual/religious coping, obtained through the mean of the 15 questions of the NSRC Dimension. The higher the value, the greater the use of the negative SRC; NSRC/PSRC RATIO: percentage of NSRC in relation to the total PSRC. Obtained through the simple division between the two values. This index is inversely proportional, since it is expected that the participant uses the positive SRC more than the negative SRC. The ratio can range

from 0.20 and 5.00, i.e., the higher the ratio, the greater the use of NSRC in relation to PSRC. In contrast, the lower the value of the ratio, the greater the use of PSRC in relation to NSRC; TOTAL SRC: indicates the total of spiritual/religious coping strategies to cope with stressor stimuli, obtained by the mean between the POSITIVE SRC index and the mean of the inversion of the answers to the 15 items of the NEGATIVE SRC. Since they are opposite dimensions, the mean between positive and negative strategies becomes unfeasible. Therefore, the inversion of the NEGATIVE SRC scores indicates that the higher the value, the greater the use of SRC. Values between 1.00 and 5.00 are maintained representing the set of the participant's SRC level. Regarding the interpretation of the scores: none or insignificant (1.00 to 1.50); low (1.51 to 2.50); medium (2.51 to 3.50); high (3.51 to 4.50); very high (4.51 to 5.00).

To allow the analysis and comprehension of the collected data, the answers were given on a five-point Likert-type scale, which ranges from 1- not at all; 2- a little; 3- more or less; 4- a lot; to 5- very much. The significance level of 5% ( $\alpha = 0.05$ ) has been adopted. *Cronbach's alpha* has the function of testing the internal reliability of an instrument and varies from zero to one (0–1), with values closer to one being more reliable. A value of  $\alpha = 0.845$  was obtained in this study.

Therefore, the choice of the SRCOPE-Short Scale in this study was determined by the fact that it addresses questions related to the most specific strategies of spiritual/religious coping before stress situations; in this case, those triggered by the stressor stimulus “breast cancer.”

The data obtained through the application of the questionnaire were doubly typed in Microsoft Excel 2007 spreadsheets. After checking the consistency of the double typing, data were transferred to the Statistical Package for the Social Sciences (SPSS) program, version 16.0 for Windows, for statistical analysis. This analysis was carried out using the Shapiro Wilk test (used to determine the normality of the variables used in the study), the *t* Test (used for variables with normal distribution to reject a null hypothesis or not) and Anova (used to evaluate the equality of the factors means) to compare the scores of Total SRC with the questionnaire variables investigated in the study. The Mann-Whitney test (non-parametric test to evaluate the equality of medians) and Kruskal-Wallis test (non-parametric test that evaluates three or more independent samples through the mean) were used to compare PSRC and NSRC scores with the questionnaire variables.

The research project was approved by the Research Ethics Committee of the Nursing School of a higher education institution, in compliance with the resolution CNS 466/2012, receiving the Research Protocol with CAAE Registration No. 20156713.6.0000.5393. A signed copy of the Written Informed Consent Form (WICF) was handed by the researchers to each participant.

## 5. Conclusions

This study aimed to evaluate spiritual/religious coping of women with breast cancer. All participants used the SRC, being 76.6% at a high/very high level and 23.4% at a medium level. The Positive SRC was more used than the Negative SRC. There were significant comparisons of Total SRC scores with the variables “Chemotherapy,” “Participation in spiritual/religious activity,” “Frequency of participation in the spiritual/religious activity,” and “Degree of importance of spirituality/religiosity in their moment of life.” There were significant comparisons of Positive SRC scores with the variables “Chemotherapy,” “Participation in spiritual/religious activity,” and “Frequency of participation in the spiritual/religious activity.” There were significant comparisons of Negative SRC scores with the variables “Participation in spiritual/religious activity” and “Frequency of participation in the spiritual/religious activity.” SRC seems to be an important coping strategy in stress situations and in the context of health, as it helped women with breast cancer to cope with the disease and the consequences of its treatments.

Health professionals should be prepared to provide interventions that favor and facilitate the access to strategies of the spiritual/religious dimension as auxiliary tools in coping with breast cancer and the side effects of its treatments.

**Acknowledgments:** The authors thank CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico—Ministério da Ciência, Tecnologia, Inovações e Comunicação) for funds and grants.



**Author Contributions:** Mariana L. Borges conceived the project, collected, analyzed, and interpreted the data, and wrote the paper; Sílvia Caldeira, Edilaine A. Caetano-Loyola, Paola A. P. Magalhães, and Felipe S. Areco contributed to the writing and relevant critical review of the intellectual content; Marislei S. Panobianco contributed to the conception of the project and analysis and interpretation of the data.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

- Arrieira, Isabel C. O., Maira B. Thofehrn, Adrize R. Porto, and Josiane S. Palma. 2011. Espiritualidade na equipe interdisciplinar que atua em cuidados paliativos às pessoas com câncer. *Ciência, Cuidado e Saúde* 10: 314–21. (In Portuguese)[CrossRef]
- Bonassa, Edva M. A., and Maria Inês R. Gato. 2012. *Terapêutica Oncológica para Enfermeiros e Farmacêuticos*, 4th ed. Rio de Janeiro: Atheneu. (In Portuguese)
- Ministério da Saúde-INCA (Instituto Nacional de Câncer José Alencar Gomes da Silva). 2010. INCA discute espiritualidade no tratamento do câncer. INCA: Agência de Notícias, December 14. Available online: [http://www2.inca.gov.br/wps/wcm/connect/agencianoticias/site/home/noticias/2010/inca\\_discute\\_espiritualidade\\_no\\_tratamento\\_do\\_cancer](http://www2.inca.gov.br/wps/wcm/connect/agencianoticias/site/home/noticias/2010/inca_discute_espiritualidade_no_tratamento_do_cancer) (accessed on 14 September 2015). (In Portuguese)
- Brito, Fabiana M., Isabelle C. P. Costa, Cristiani G. Andrade, Kamyla F. O. Lima, Solange F. G. Costa, and Maria Emília L. Lopes. 2013. Espiritualidade na iminência da morte: estratégia adotada para humanizar o cuidar em enfermagem. *Revista Enfermagem UERJ* 21: 483–89. (In Portuguese)
- Caldeira, Sílvia, Ana C. Gomes, and Manuela Frederico. 2011. De um novo paradigma na gestão dos enfermeiros: a espiritualidade no local de trabalho. *Revista de Enfermagem Referência* série III: 25–35. (In Portuguese)[CrossRef]
- Fangel, Letícia M. V., Marislei S. Panobianco, Leonardo M. Kebbe, Ana Maria de Almeida, and Thais O. Gozzo. 2013. Qualidade de vida e desempenho de atividades cotidianas após o tratamento das neoplasias mamárias. *Acta Paulista de Enfermagem [online]* 26: 93–100. Available online: <http://www.scielo.br/pdf/apv/v26n1/15.pdf> (accessed on 16 October 2016). (In Portuguese)
- Geronasso, Martha C. H., and Denise Coelho. 2012. A influência da religiosidade/espiritualidade na qualidade de vida das pessoas com câncer. *Saúde e Meio Ambiente* 1: 173–87. (In Portuguese)
- Jafari, Najmeh, Ahmadsreza Zamani, Ziba Farajzadegan, Fatemeh Bahrami, Hamid Emami, and Amir Loghmani. 2013. The effect of spiritual therapy for improving the quality of life of women with breast cancer: A randomized controlled trial. *Psychology, Health and Medicine* 18: 56–69. [CrossRef] [PubMed]
- Koenig, Harold G., Kenneth I. Pargament, and Julie Nielsen. 1998. Religious coping and health status in medically ill hospitalized older adults. *The Journal of Nervous and Mental Disease* 186: 513–21. [CrossRef] [PubMed]
- Kristeller, Jean L., Virgil Sheets, Tom Johnson, and Betsy Frank. 2011. Understanding religious and spiritual influences on adjustment to cancer: individual patterns and differences. *Journal of Behavioral Medicine* 34: 550–61. [CrossRef] [PubMed]
- Lynn, Beverly, Grace J. Yoo, and Ellen G. Levine. 2014. “Trust in the Lord”: Religious and spiritual practices of African American breast cancer survivors. *Journal of Religion and Health* 53: 1706–16. [CrossRef] [PubMed]
- Mesquita, Ana Cláudia, Érika C. L. Chaves, Carolina C. V. Avelino, Denismar A. Nogueira, Raquel G. Panzini, and Emília C. Carvalho. 2013. A utilização do enfrentamento religioso/espiritual por pacientes com câncer em tratamento quimioterápico. *Revista Latino-Americana de Enfermagem* 21: 1–7. (In Portuguese)
- Mistura, Claudelí, Maria de Fátima A. A. Carvalho, and Viviane E. P. Santos. 2011. Mulheres mastectomizadas: Vivências frente ao câncer de mama. *Revista de Enfermagem da UFSM [online]* 1: 351–59. Available online: <https://periodicos.ufsm.br/reufsm/article/view/2943/2384> (accessed on 08 August 2016). (In Portuguese)
- Nascimento, Lucila C., Tabatha F. M. Santos, Fabiane C. S. Oliveira, Raquel Pan, Milena Flória-Santos, and Semiramis M. M. Rocha. 2013. Espiritualidade e religiosidade na perspectiva de enfermeiros. *Texto & Contexto Enfermagem* 22: 52–60. (In Portuguese)
- Panzini, Raquel G., and Denise R. Bandeira. 2005. Escala de coping religioso-espiritual (escala CRE): Elaboração e validação de construto. *Psicologia em Estudo* 10: 507–16. (In Portuguese)[CrossRef]
- Panzini, Raquel G., and Denise R. Bandeira. 2007. Coping (enfrentamento) religioso/espiritual. *Revista de Psiquiatria Clínica* 34: 126–35. (In Portuguese)[CrossRef]

- Pargament, Kenneth I. 1997. *The Psychology of Religion and Coping: Theory, Research, Practice*. New York: Guilford Press.
- Pargament, Kenneth I., Harold G. Koenig, and Lisa M. Perez. 2000. The many methods of religious coping: development and initial validation of the RCOPE. *Journal of Clinical Psychology [online]* 56: 519–43. Available online: <http://www.jpsych.com/pdfs/Pargament,%20Koenig%20&%20Perez,%202000.pdf> (accessed on 7 September 2016).
- Rodrigues, Fernanda S. S., and Marlis M. Polidori. 2012. Enfrentamento e resiliência de pacientes em tratamento quimioterápico e seus familiares. *Revista Brasileira de Cancerologia* 58: 619–27. (In Portuguese)
- Souza, Verônica M., Heloísa C. F. Frizzo, Michelle H. P. Paiva, Regina S. Bousso, and Álvaro S. Santos. 2015. Spirituality, religion and personal beliefs of adolescents with cancer. *Revista Brasileira de Enfermagem* 68: 509–14. (In Portuguese)
- Swinton, John, V. Bain, S. Ingram, and S. D. Heys. 2011. Moving inwards, moving outwards, moving upwards: The role of spirituality during the early stages of breast cancer. *European Journal of Cancer Care* 20: 640–52. (In Portuguese)[CrossRef] [PubMed]
- Thuné-Boyle, Ingela C. V., Jan Stygall, Mohammed R. S. Keshtgar, Tim I. Davidson, and Stanton P. Newman. 2013. Religious/spiritual coping resources and their relationship with adjustment in patients newly diagnosed with breast cancer in the UK. *Psycho-Oncology [online]* 22: 646–58. Available online: <http://onlinelibrary.wiley.com/doi/10.1002/pon.3048/full> (accessed on 10 July 2015).
- Valcanti, Carolina C., Érika C. L. Chaves, Ana Cláudia Mesquita, Denismar A. Nogueira, and Emília C. Carvalho. 2012. Coping religioso/espiritual em pessoas com doença renal crônica em tratamento hemodialítico. *Revista da Escola de Enfermagem da USP* 46: 838–45. (In Portuguese)[CrossRef]
- Veit, Carina M., and Elisa K. Castro. 2013. Coping religioso/espiritual em mulheres com câncer de mama. *Arquivos Brasileiros de Psicologia [online]* 65: 421–35. Available online: <http://pepsic.bvsalud.org/pdf/arbp/v65n3/08.pdf> (accessed on 22 July 2016). (In Portuguese)



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