

Article

Impact of Islam-Based Caring Intervention on Spiritual Well-Being in Muslim Women with Breast Cancer Undergoing Chemotherapy

Maria Komariah ^{1,2,*} , Urai Hatthakit ¹ and Nongnut Boonyoung ¹

¹ Faculty of Nursing, Prince of Songkla University, Songkhla 90110, Thailand; urai.h@psu.ac.th (U.H.); nongnut.b@psu.ac.th (N.B.)

² Faculty of Nursing, Universitas Padjadjaran, West Java 45363, Indonesia

* Correspondence: maria.komariah@unpad.ac.id; Tel.: +62-22-779-5596

Received: 2 June 2020; Accepted: 13 July 2020; Published: 16 July 2020



Abstract: This research emphasizes the nurse's role in incorporating Islamic teaching through the care practices provided in order to promote spiritual well-being in Muslim women with breast cancer undergoing chemotherapy. In addition, religion and spirituality have been recognized as the primary resources for coping. The aim of the study, therefore, was to explore the impact of an Islam-based caring intervention on the spiritual well-being of Muslim women with cancer. Furthermore, data were collected using a questionnaire and, also, the Functional Assessment of Chronic Illness Therapy-Spiritual well-being (FACIT-Sp) on baseline (Time 1), days 3 (Time 2), 23 (Time 3), and 44 (Time 4). The results showed the significant impact of an Islam-based caring intervention on the participants' level of spiritual well-being. In addition, the mean scores varied between the intervention and control group over time. Based on the reflection, participants stipulated feeling peace of mind, closer to God, spirit for further life, and healthier.

Keywords: cancer; caring; Islam-based caring; Muslim; spiritual well-being

1. Introduction

The most frequent origin of deaths related to cancer in women worldwide is breast cancer (DeSantis et al. 2015), and many patients are late to seek treatment. This is because hospital visitations are made at advanced stages of the disease or after a fatal metastasis condition. Furthermore, breast cancer is also regarded as the most common cause of death in women from developing countries (Aranda et al. 2006), and the incidence of advanced stages in Indonesia continues to increase, especially in urban areas, including the West Java Province (Oemiati et al. 2011).

Individuals with advanced-stage breast cancer commonly suffer spiritual distress caused by the disease, diagnosis, treatments, and their complications. Spiritual distress occurs when a person experiences severe physical and emotional pain, leading them to question their beliefs (crossroadshospice.com 2020). The treatment at this stage is stressful and requires various physical, psychological, behavioral, social, and spiritual concerns (Thasaneesuwan et al. 2018). The recent advancements in treatments have resulted in longer life for patients with cancer, although this is not always good, as a number of sufferers endure the disease chronicity with a low quality of life (Sibeoni et al. 2018). The suffering experienced from diagnosis through treatment, survival, recurrence, and dying often results in issues, including spiritual distress (Caldeira et al. 2017; Loh 2004; Martins and Caldeira 2018; Villagomez 2005). Furthermore, the affected patients express concern about the meaning of life, death, and suffering and, also, attribute the illness to a form of punishment (Caldeira et al. 2017; Martins et al. 2019). This is sometimes accompanied with the feeling of anger, sadness, withdrawal,

apathy, and denial (Caldeira et al. 2017; Loh 2004; Martins and Caldeira 2018). The unsuccessful management of spiritual distress with advanced stages of cancer can have a detrimental impact on one's entire spiritual well-being (Caldeira et al. 2017).

Previous studies reported on the need for spirituality, especially as a resource for comfort and strength in patients with advanced stages of cancer (Delgado-Guay et al. 2011; Sajadi et al. 2018). This approach prompts the individuals to search for meaning out of life, subsequently leading to prolonged survival and improved quality of life (Phenwan et al. 2019). However, inadequacies in spiritual care tend to pose detrimental effects on spiritual well-being (Caldeira et al. 2017). This deficiency has been related to the incidence of depression (Stutzman and Abraham 2017), reduced quality of life (Bai and Lazenby 2015), as well as the desire for accelerated death in metastatic cancer patients (Balaguer et al. 2016). Martoni et al. (2017) reported on the low spiritual well-being of Italian patients with advanced cancer, and the outcome was moderate in Iran (Sajadi et al. 2018). Similarly, moderate levels were reported for cancer survivors in Indonesia (Suara et al. 2017), and poor for breast cancer patients undergoing chemotherapy (Wahyuningsih et al. 2019).

Some studies have investigated the effects of various methods required to promote the spiritual well-being of women with advanced breast cancer, including yoga, meditation, and spiritual therapies. Cramer et al. (2012) performed a meta-analysis study with 12 randomized controlled trials (RCTs) using yoga for breast cancer patients. In addition, various forms were adopted, including, Iyengar yoga, yoga of awareness, viniyoga, restorative yoga, Patanjali's yoga tradition, yoga in daily life, and hatha yoga. The study displayed a significant positive impact on spiritual well-being outcomes, which was congruent with the report of Côté and Daneault (2012) in a similar study conducted in North America. However, the investigation by Lötze et al. (2016) on the effect of yoga compared to conventional therapeutic exercises on women with breast cancer displayed no significant differences between both interventions.

Mindfulness-Based Stress Reduction (MBSR) is another common method that has been applied to reduce stress, promote mental health as well as spiritual well-being of advanced breast cancer patients (Cramer et al. 2012; Fjorback et al. 2011; Speca et al. 2000). The MBSR is a program developed by Kabat-Zinn (2003) with the intent to promote individual attentiveness. This was designed with a combination of mindfulness meditation, body awareness, and other related techniques, including yoga and imagination. Studies have shown a significant increase in the spiritual well-being of patients with heterogeneity in cancer type and stage during treatment, although inconsistent effects were recorded for spiritual outcomes (Zhang et al. 2016). Likewise, Cognitive Behavioral Therapy (CBT) is a psychosocial procedure, focused on the development of personal coping strategies for solving current problems and changing unhelpful cognitive patterns (e.g., thought, beliefs, and attitudes), behaviors, and emotional regulation (Hassanzade et al. 2012). Although some studies regarding MBSR and CBT have been reported as successful in improving the spiritual well-being of breast cancer patients, the programs may not be culturally appropriate for Muslim people as they are likely to be more religious-focused in their daily life. Thus, a religious-based program driven by faith toward spiritual well-being should be more appropriate than MBSR and CBT, which were more focused on the promotion of psychological and mental health through the development of cognitive function.

Spiritual therapies or religious-based therapies have been used to improve spiritual well-being for breast cancer patients. Based on the literature review of one meta-analysis, three RCTs, and one quasi-experimental study, spiritual interventions were confirmed to have a significant positive impact on spiritual well-being (Jafari et al. 2013; Pok-Ja Oh and Kim 2014; Zamaniyan et al. 2016). However, the performance on advanced breast cancer patients has been a topic for extensive research. There were two main types of spiritual interventions identified in the existing literature, encompassing the existential and religious, and most studies used the latter in the form of spiritual nursing care, counseling, interventions assisted by oncologists, and meditation focused on spirituality. These were basically provided by nurses and are also the most common therapy with an individual approach. Furthermore, the spiritual intervention requires an average of seven sessions over a duration of

6.4 weeks with a mean of 46.3 min in each. The findings confirmed the significant impact of spiritual interventions on spiritual well-being and life-meaning (Pok-Ja Oh and Kim 2014).

Furthermore, spiritual therapy based on the Islamic approach was assumed to be capable of promoting the spiritual well-being of breast cancer patients. Jafari et al. (2013) investigated affected Iranian women using a randomized, control-trial design, and the therapy consisted of six sessions, where each had a theme. This involved combining a specific spirituality domain and is terminated with a 20 to 30-min guided relaxation and meditation exercise. The program was conducted over a six-week duration, and each session is performed in two to three hours. The results showed a positive outcome, which was similar with the report by Zamaniyan et al. (2016) from a quasi-experimental project. This investigation was carried out with 12 participants, including Iranian women with breast cancer, expected to comply with group spiritual therapy. The therapy spanned 12 sessions, and each lasted for 120 min over a period of one week. Furthermore, the treatment focused on self-consciousness, communication with oneself, self-concept, the word of God, altruism, relationship with holy sites, forgiveness, death and fear, faith and trust in God, gratefulness and blessings, and a final session. The program was, therefore, concluded to have potential application in improving spiritual well-being of breast cancer patients (Zamaniyan et al. 2016). Furthermore, one of the studies was affiliated with the spiritual intervention rooted in Buddhism to significantly enhance spiritual well-being (Chimluang et al. 2017).

It is evident that there has been extensive research on spirituality and management for survivors. However, existing literature has certain limitations, attributed to sample size restrictions (Chimluang et al. 2017; Jafari et al. 2013; Zamaniyan et al. 2016). Hence, the effectiveness of the aforementioned interventions remains questionable. Evidence from existing reports encourages nurses to provide spiritual care to individuals at the advanced stage of breast cancer, although issues of spiritual health gains minimal attention from the real clinical practice of nurses. This is possibly due to the impractical nature of existing spiritual care programs, and the poor nurse knowledge in this aspect, mostly related to the culture and beliefs of patients. This current study, therefore, aims to develop a practical and feasible spiritual program, characterized by the ease of implementation in the clinical setting. Furthermore, Islamic religious activities, including prayers and ¹*dhikr* meditation (as part of Muslim's daily life routine) were selected and incorporated into the nurses' caring practice. Despite the compulsorily practice of these religious activities, not all Muslims gain the expected benefits, and this is due to the incorrect application without insightful awareness.

In addition, prayer and *dhikr* meditation are found to greatly affect spiritual well-being, when performed appropriately with ²*khushu* (Imamoğlu and Dilek 2016; Rosmani et al. 2015). This is referred to as the state of mind of an individual during prayers, characterized by the complete direction of minds and hearts to God (Sayeed and Prakash 2013). Furthermore, those reported to regularly offer prayer with mindfulness (*khushu*) tended to have better mental health, compared to others (Ijaz et al. 2017). Therefore, it is vital to develop a correct, feasible, practical, and easily practiced Islam-based caring intervention. This is necessary to enhance the attractiveness and, also, to motivate the nurses and patients towards the practice.

2. Methods

2.1. Study Design

This is a quasi-experimental study with pre- and post-test control groups. The research was approved by the Institutional Review Board, with document number 2017 NSt-Qn 054, on the approved date: 15 January 2018. Furthermore, before the program was implemented, informed consent was

¹ *Dhikr* refers to divine remembrance, methodical repetitions of the divine name with prayer beads, and the repetition of devotional poems and Quranic formulas.

² *Khushu* refers to performing prayers quietly, focusing one's mind only on God.

asked from the participants, as well as giving them information about the research objectives, data collection procedures, duration, expected benefits, and confidentiality during and following the study. Furthermore, the participants possessed the right to withdraw from the investigation at any time, after submitting a signed consent form.

2.2. Participants and Setting

The recruitment process was performed at the outpatient Chemotherapy Unit of a Teaching Hospital, Bandung, West Java Province, Indonesia, between February and July 2018. Therefore, a total of 120 patients met the inclusion criteria of: (1) being Muslim women; (2) being aged >18 years old to ensure the ability to legally give consent; (3) having a new or recurrent diagnosis of stage III breast cancer by a physician; (4) being able to accomplish basic routine activities using the measure of Eastern Cooperative Oncology Group (ECOG), and possessing a Performance Score between 0–2; (5) having intact reasoning capacity with no documented diagnosis of mental illness by a psychiatrist; (6) having competency in speaking and understanding Bahasa Indonesia; (7) having access to a telephone; and, (8) receiving chemotherapy every 21 days at any cycle ≤ 4 cycles, encompassing the current period. Furthermore, the exclusion criteria included patients regularly on complementary alternative medicine and those without the capacity to complete the Islam-based caring protocol. The study sample size was determined considering the large effect size from a similar study ($d = 0.61$) (Lengacher et al. 2009), with a power of 0.80 and alpha level probability (0.05). The estimated sample size is expected to consist of at least 44 subjects per group, and a total of 120 patients were recruited to achieve more reliable results. Therefore, 53 and 59 participants were drafted in the experimental and control groups, respectively.

2.3. Materials

Patients were invited to answer some questionnaires, including:

ECOG Performance Status was used to evaluate patient functionality, specifically for the purposes of making oncological decisions. This tool incorporated the ambulatory status elements and the demand for care. Furthermore, the instrument encompassed five performance levels, which were rated from 0 (normal performance and function) to 5 (dead). Furthermore, participation was allowed after attaining a score of 0–2.

Demographic and clinical features of all participants were collected, including age, education, marital status, occupation, number of children, family income, stage of breast cancer, number of chemotherapy cycles, and types of chemotherapy.

A scale was used to measure the level of *khushu* prayer, including the *Khushu* Prayer Questionnaire, developed by Nawansih and Purwanto (2012). This consisted of 30 items based on the indicators of concentration to God during prayer, efforts of the heart towards understanding the meaning of contents read during prayers, exaltation and honor, the fear of God, and ability to embody the message of prayer in everyday life. Furthermore, a Likert scale was used with the categories of strongly agree, agree, disagree, and strongly disagree. The higher acceptable score level is 75–120, while 30–74 is regarded as low.

A self-report form documenting prayer and meditation practice at home. This record consisted of the date, practice duration in minutes, feelings, thoughts, and any problems or difficulties encountered during the process.

The Functional Assessment of Chronic Illness Therapy (Spiritual) (FACIT-Sp) developed by Cella et al. (1993) was used to assess the level of spiritual well-being. In addition, it contains a 12-item scale in 2 subscales, encompassing 8 items for meaning/peace, and 4 for faith (items 9, 10, 11, 12). This involved Likert-type scales (absolutely not = 0, very much = 4), and a higher score indicated a better level of spiritual well-being. Furthermore, reliability was reported for the total FACIT-Sp and subscales, and the internal consistency ranged from 0.81 to 0.88. Moreover, the possible scores for FACIT-Sp ranged from 0–48, and, by comparison, the Indonesian version showed a value of 0.88 for the reliability test (Aisyah 2017).

Questions related to the reflection sessions: This guideline was used to encourage reflection in participants, with respect to personal feelings, and the spiritual problem faced during the program. Some of the questions included: “How do you feel during the *khushu* prayer or *dhikr* meditation?”, and “What changes do you perceive after the process?”

2.4. Procedures

The intervention program was conducted by the researcher and three trained research assistants as the Muslim care team. All the research assistants were Muslim and held a bachelor’s degree in Nursing. They were trained by the researcher to implement the intervention program and to assist in data collection for both the intervention and the control groups.

All participants were assessed using a Performance Scale (ECOG). Therefore, the questionnaire and the FACIT-Sp were applied to the intervention and control groups at the first meeting, and the questionnaires were repeated on days 3, 23, and 44. This timeline was designed because the highest level of physical suffering often develops 3 days after receiving chemotherapy (Battaglini et al. 2008). Furthermore, participants in the intervention group were charged to follow the program by the provision of training and practice evaluation using the *Khushu* Prayer Questionnaire. In addition, they were requested to self-evaluate the *khushu* prayer, the regularity, and the intervention program experience during home practice. Furthermore, a Daily Self-Report at Home was required, for a duration of 6 weeks, as determined in a previous study conducted by Jafari et al. (2013). This parameter was used to establish the effectiveness of using 6 weeks of Islamic spiritual therapy.

An Islam-based caring program was performed with the intervention group. This involved the provision of Islamic prayer and *dhikr* meditation through nurses’ caring actions and was divided into 3 sessions according to the chemotherapy cycle received (3 cycles). During the first meeting, the participants were briefed with knowledge about the disease, possible complications, and side effects of chemotherapy. The caring approach to be adopted was crucial in strengthening the relationship, including greeting, demonstration of respect, and disseminating blessing through an Islamic approach, praying for healing together. Furthermore, patients and relatives are also encouraged to exercise patience with the illness and consider death risks, by praying for help and, also, accepting cancer as an atonement for sins, with death attributed as a vital aspect of the way to encounter Allah. This present study involved an individual face-to-face approach, and the intervention was practiced together with both patients and respective family members during hospital visits every 3 weeks, for the next chemotherapy cycle. In addition, the first, second, and third meetings lasted for 73, 43, and 43 min respectively, with each featuring reflections after practice. The researcher assigned the participants of the intervention group to individually practice prayer and *dhikr* meditation at home after being discharged.

2.5. Data Analysis

This was achieved using descriptive statistics (mean, SD, range), independent t-test, chi-square test, and one-way repeated measures analysis of variance (one-way RM-ANOVA). All statistical analysis was performed using SPSS software (version 16), and *p* values were considered significant below 0.05. Meanwhile, content analysis was performed on qualitative data.

3. Results

The total of 56 and 64 participants were allocated into the intervention and control groups, respectively. In addition, eight people out of those that initially agreed to participate dropped out for a variety reasons (e.g., changed setting, extended treatment, death). Hence, 53 and 59 women, respectively, completed the program in the intervention and control groups.

The demographic information obtained from women with breast cancer, and the individual variables include age, education, occupation, marital status, number of children, family income, stage of breast cancer, surgical action, chemotherapy treatment, and cycle (Table 1). Furthermore, most

participants were married, unemployed, with a minimum of primary education. Moreover, there was a high prevalence of adequate family income. There was also no significant statistical difference in terms of individual characteristics.

Table 1. Comparison of participants' demographic information between the intervention (n = 53) and control (n = 59) groups.

Variable	Intervention Group n = 53	Control Group n = 59	Statistics Test	p-Value
Age (Mean/SD)	47.51(7.74)	46.83(8.60)	-0.44 ^a	0.66
Education				
Primary	28(52.8)	34(57.6)		
High school	21(39.6)	21(35.6)	0.26	0.88 ^c
University	4(7.6)	4(6.8)		
Occupation				
Unemployed	35(66.0)	39(66.1)	0.00	1.00 ^b
Employed	18(34.0)	20(33.9)		
Marital status				
Single	3(5.7)	1(1.7)		
Married	41(77.3)	48(81.4)	1.33	0.52 ^c
Widow	9(17.0)	10(16.9)		
Number of children				
0–2	34(64.2)	31(52.5)	1.55	0.21 ^b
3–5	19(35.8)	28(47.5)		
Family income				
Adequate	45(84.9)	46(78.0)	0.88	0.35 ^b
Inadequate	8(15.1)	13(22.0)		
Medical History				
Breast cancer staging				
IIIa	13(24.5)	23(39.0)		
IIIb	37(69.8)	31(52.5)	3.53	0.17 ^c
IIIc	3(5.7)	5(4.5)		
Surgical treatment				
No	31(58.5)	36(61.0)	0.07	0.79 ^b
Yes	22(41.5)	23(39.0)		
Chemotherapy treatment				
FAC	43(81.1)	47(79.7)		
TAC	6(11.3)	7(11.8)	0.05	0.98 ^c
AC + paclitaxel	4(7.6)	5(8.5)		
Chemotherapy cycle				
1	22(41.5)	20(33.9)		
2	12(22.6)	23(39.0)		
3	9(17.0)	7(11.9)	3.54	0.32 ^b
4	10(18.9)	9(15.2)		

Note: ^a = Independent *t*-test, ^b = Chi-square, ^c = likelihood ratio, FAC = 5-Fluorouracil, Doxorubicin, and Cyclophosphamide, TAC = Docetaxel, Doxorubicin, and Cyclophosphamide, AC = Doxorubicin and Cyclophosphamide.

Table 2 showed no statistically significant difference in the mean score of spiritual well-being at the baseline (Time 1) between groups ($p = 0.918$). However, the intervention group was significantly higher on Time 2, Time 3, and Time 4 at ($p = 0.042$), ($p = 0.015$), ($p = 0.000$), respectively.

A one-way RM-ANOVA was used to test the variations in variables over time within groups, and the results were significant for intervention ($p = 0.027$) and control group ($p = 0.005$). Based on a post hoc test, the spiritual well-being score indicated an increased significant difference from Time 1 to Time 4 ($p < 0.05$).

Table 2. Comparison of the spiritual well-being scores between the intervention (n = 53) and control (n = 59) groups classified by time point.

Time	Group		p
	Intervention (n = 53)	Control (n = 59)	
	Mean (SD)	Mean (SD)	
Time 1	36.77(3.67)	36.86(5.57)	0.918
Time 2	37.25(5.22)	35.19(5.80)	0.042 *
Time 3	37.66(5.77)	34.61(7.10)	0.015 *
Time 4	39.09(4.81)	33.08(7.24)	0.000 **

Note: * $p < 0.05$, ** $p < 0.001$.

Table 3 shows the level of improvement, especially for meaning/peace subscale (items no 1–8), and the mean score of items gradually increased based on reports from assessment on Time 2, Time 3, and Time 4. For instance: “I feel peaceful,” “I have a reason for living,” “my life has been productive,” “I have trouble feeling peace of mind,” “I feel a sense of harmony within myself,” and “my life lacks meaning and purpose.”

Table 3. The mean scores of spiritual well-being of the intervention (n = 53) group and the control group (n = 59) at Time 1, Time 2, Time 3 and Time 4.

SWB	Gr	Time 1		Time 2		Time 3		Time 4	
		Mean (SD)	p	Mean (SD)	p	Mean (SD)	p	Mean (SD)	p
I feel peaceful.	In	2.85(0.74)	0.039 *	2.70(0.93)	0.194	2.75(0.90)	0.048 *	3.09(0.66)	0.000 **
	Ct	2.53(0.90)		2.47(0.88)		2.42(0.86)		2.20(1.03)	
I have a reason for living.	In	3.45(0.61)	0.562	3.57(0.84)	0.845	3.53(0.61)	0.187	3.66(0.48)	0.000 **
	Ct	3.53(0.70)		3.59(0.62)		3.34(0.86)		3.22(0.79)	
My life has been productive.	In	2.81(0.81)	0.072	2.58(0.99)	0.143	2.64(0.86)	0.048 *	2.92(0.76)	0.001 *
	Ct	2.51(0.95)		2.32(0.90)		2.64(0.86)		2.37(0.87)	
I have trouble feeling peace of mind (reversed).	In	2.91(0.97)	0.466	2.96(0.98)	0.138	2.83(1.07)	0.803	3.11(0.99)	0.001 *
	Ct	2.76(1.09)		2.66(1.15)		2.78(1.07)		2.51(0.94)	
I feel a sense of purpose in my life.	In	3.11(0.64)	0.425	3.15(0.91)	0.323	3.28(0.84)	0.082	3.23(0.77)	0.005 *
	Ct	3.00(0.83)		2.98(0.88)		2.98(0.96)		2.81(0.75)	
I am able to reach down deep into myself for comfort.	In	2.77(0.78)	0.235	2.87(0.81)	0.001 *	2.98(0.82)	0.040 *	2.92(0.78)	0.000 **
	Ct	2.58(0.97)		2.32(0.88)		2.47(1.02)		2.31(0.89)	
I feel a sense of harmony within myself.	In	2.66(0.94)	0.483	2.53(0.80)	0.193	2.81(0.86)	0.016 *	2.94(0.66)	0.000 **
	Ct	2.53(1.09)		2.32(0.86)		2.41(0.89)		2.34(0.84)	
My life lacks meaning and purpose (reversed).	In	3.15(0.95)	0.060	3.42(1.13)	0.586	3.51(0.93)	0.127	3.83(0.85)	0.001 *
	Ct	3.53(1.12)		3.53(1.01)		3.19(1.28)		3.15(1.19)	
I find comfort in my faith or spiritual beliefs.	In	3.13(0.65)	0.002 *	3.30(0.88)	0.576	3.28(0.66)	0.205	3.30(0.72)	0.022 *
	Ct	3.53(0.65)		3.20(1.01)		3.10(0.82)		2.92(1.02)	
I find strength in my faith or spiritual beliefs.	In	3.36(0.65)	0.012 *	3.34(0.73)	0.421	3.36(0.56)	0.177	3.30(0.75)	0.127
	Ct	3.53(0.68)		3.20(1.01)		3.19(0.75)		3.05(0.95)	
My illness has strengthened my faith or spiritual beliefs.	In	3.43(0.67)	0.368	3.42(0.60)	0.071	3.30(0.67)	0.571	3.36(0.62)	0.021 *
	Ct	3.44(0.84)		3.14(0.99)		3.22(0.83)		3.00(0.95)	
I know that whatever happens with my illness, things will be okay.	In	3.51(0.64)	0.823	3.42(0.60)	0.838	3.38(0.63)	0.252	3.42(0.63)	0.080
	Ct	3.42(0.75)		3.44(0.75)		3.20(0.92)		3.17(0.81)	

Note: * $p < 0.05$, ** $p < 0.001$; In = intervention group, Ct = control group; SWB = Spiritual well-being; Gr = Groups.

As shown in Figure 1, the intervention program was continuously implemented over Time 2, Time 3, and Time 4, and the spiritual well-being score significantly increased among the study population. However, the value for the control group gradually regressed from the baseline.

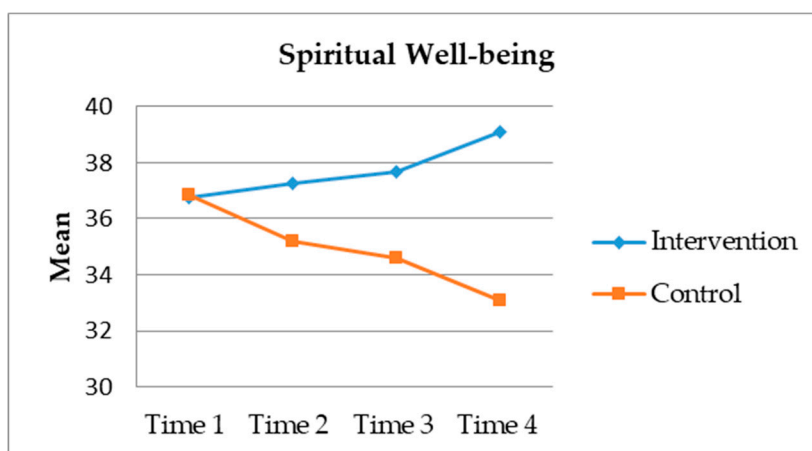


Figure 1. The differences of the mean scores of spiritual well-being between the control (n = 59) and the intervention (n = 53) groups at Time 1, Time 2, Time 3, and Time 4.

Furthermore, all participants demonstrated a high level of *khushu*, categorized as borderline-high (52.83%), moderate-high (28.30%), and very high (18.87%) (Figure 2). This indicates the correct prayer practice by people in the intervention group and is supported by the verbatims as follows.

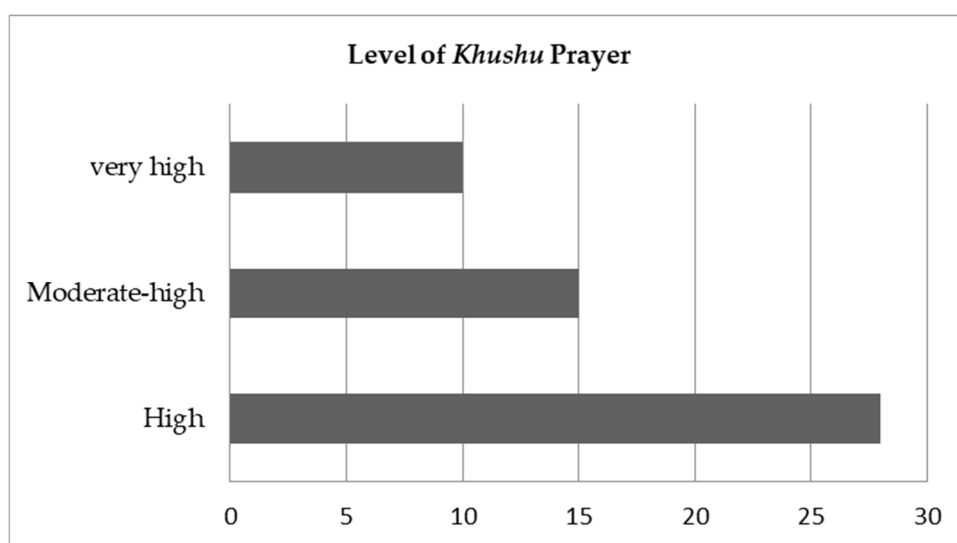


Figure 2. The level of *khushu* prayer of the participants in the intervention group (n = 53).

‘This program is very useful for us, because it ensures the proper practice of religious performances. Moreover, there is better enlightenment on how to correctly perform prayers and *dhikr* meditation. This facilitates the expected health benefits, and there is need for these types of programs in hospitals. ... as it helps reduce stress and promotes relaxation.’

‘This is very useful, and I’ve also heard that meditation is good for cancer patients, but personally don’t know how it is practiced? I feel lucky to have been provided with the chance to join this program.’

‘Now, I’m confident in my ability to correctly practice these prayers. Also, my mind is focused better and longer than before during a connection with God.’

‘Before practicing the *khushu* prayer, I always felt restless, and now my feeling is much better and peaceful, and my body is healthier as well.’

'*Alhamdulillah* (Praise be to God), the *khushu* prayer indeed improves interpersonal devotedness, and Allah seems very close to hear my prayers. This practice is meaningful and important in life.'

4. Discussion

This current study confirms the impact of spiritual therapy implemented through the caring approach, aimed at increasing spiritual well-being of patients with breast cancer. The program was implemented for 6 weeks, and the intervention variables were evaluated over a time period (4 times measured). Furthermore, the spiritual well-being outcome was appraised from Time 2 after chemotherapy treatment, followed by Time 3, and Time 4. The mean scores gradually increased over time, especially on Time 3 and 4, thus revealing the positive impact of regular Islam-based caring practice, and, also, in terms of strengthening the individuals' spiritual well-being.

Spiritual well-being involves meaning/peace and faith subscale of FACIT-Sp12. Overall, spiritual well-being among the patients with breast cancer showed a gradual increase for the intervention group. On Time 2, Time 3 and Time 4, post intervention reports were provided with respect to spiritual well-being domain modifications, and the treatment group was statistically different from the control. The results show statistically significant elevations in the mean scores of spiritual well-being in the intervention group, from pre to post-interventions. This finding is in line with several previous reports, where various types of spiritual therapies with different program-duration range are used. These include the successful outcome of spiritual group therapy conducted for 6–12 weeks (Jafari et al. 2013; Zamaniyan et al. 2016), spiritual intervention for 8 weeks (Fallah et al. 2011), and spiritual intervention backed by the *Quran* and Islamic standards for 10 weeks (Hosseini et al. 2016).

In the present study, since spiritual well-being is characterized by two main components, including meaning/peace and faith, all the mean scores of the spiritual well-being of the subcomponents of meaning and peace—i.e., feeling a sense of purpose in life, feeling peaceful, and a feeling of harmony—were higher than those of the baselines and the control groups. While the component of faith—i.e., strength in faith or spiritual beliefs and hopeful thought (“whatever happens with my illness, things will be okay”)—scores were slightly decreasing along with the four-time point of both intervention and control groups. This indicated that subcomponents of meaning and peace had more impact on spiritual well-being than the subcomponent of faith, which is congruent with several previous studies. Jafari et al. (2013) reported on the strong association between the existential meaning and peace components with psychological adjustments, as against the faith concept. This outcome is congruent with the report from Australian research conducted on 449 patients, which featured significantly improved health-related quality of life domains, characterized by a close association with the meaning/peace component than faith. Furthermore, the subscale “meaning” was a relatively better predictor of cravings for accelerated death, as well as improved quality of life, as reported by Wang and Lin (2016) from research performed in Taiwan with 85 critically ill cancer patients.

This investigation provides support on Islam-based caring intervention effectiveness in an Indonesian context, with respect to meaning and peace, as subscales of spiritual well-being. However, the finding is a little unexpected as faith in the religion and God has been emphasized and strengthened by the practice of Muslim people in daily life. Since a study that attempts to investigate the subcomponents of a religion-based program has still been neglected, further research in this area is required to confirm findings.

This positive outcome is possibly due to the program structure and specification being specially composed of Islamic principles. Furthermore, the caring approach also impacted on the health consequences in this study, as nurses incorporated the Islamic culture to establish a nurse–patient–family relationship and to heal the patients. These developments were based on religious teachings, with the main path focused on the Five Pillars and the True Faith, as an effective physical–spiritual care.

According to the results, all participants (100%) were able to follow the program with *khushu* prayer, after receiving an explanation on the appropriate practice technique. However, only 88.68% followed up accordingly during the first session (first three weeks after baseline), and this was lower

than expected. The probable reason was that almost half of the participants (41.5%) in the intervention group received the first cycle of chemotherapy, which was reported to be more severely affected by the treatment side effects, e.g., nausea, fatigue, vomiting, and difficulty in sleeping (Werdani 2018). Meanwhile, all patients in the current study reported on the feeling of peace, a spirit of life experienced while praying solemnly, followed by *dhikr* meditation. It is in line with the data from Table 3 that the participants have an increase in the subscale of meaning and peace (items no. 1–8) after receiving the intervention program for six-week. According to Lewis et al. (2014) and Pok-Ja Oh and Kim (2014), breast cancer patients derive comfort in spiritual activities, significantly associated with the provision of spiritual intervention and the positive outcomes.

This finding was also supported by the narrative accounts of a peaceful mind, as well as improved meaning of life as a result of the intervention program. The qualitative data showed the feeling of restlessness, worry about the disease, and uncertainty of the future before practicing the *khushu* prayer, despite the regular performance of prayers and *dhikr*. This prompts the need to develop an Islam-based caring program with emphasis on correct practices, featuring the allotment of adequate time for each session. Furthermore, the entire duration is considered to ensure the achievement of all expected health outcomes. The results from narrative accounts after receiving the intervention program confirm the programs' ability to provide more benefits, including an increased feeling of peace, closeness to God, spirit for further life, meaning of life, and better health. It was expected that the strength derived from spiritual health can further reduce the side effects of chemotherapy as reported by Chimluang et al. (2017), while the positive impact of high level spiritual well-being on the existential meaning of life also provides an individual with greater sense of inner strength and positive energy reported by Al-Natour et al. (2017).

Furthermore, Islamic caring is known to convey good health consequences, by providing patients education in relation to the disease and treatment and also confers suitable effects in terms of healing. The interaction between nurses and patients through the delivery of care, love, empathy, and compassion integrated with Islamic teaching helps boost the therapeutic effects (Ismail and Hatthakit 2018). This study also involved family members as caregivers providing support and care to the patients.

A limitation of the study was discovered. First, the researcher could not directly observe the practices of the program in the participants' homes, such as properly engaging in the prayer and *dhikr* meditation. However, phone calls were used to discuss the program and ensure participants in the intervention group followed the program accordingly, adding to the individual training in prayer and *dhikr* meditation provided at the first meeting. Furthermore, the participants were asked to self-report their daily practice at home to ensure the adequacy of the practice. Second, the study's findings could not generalize, as it was limited only to Muslim women with breast cancer in Indonesia. Therefore, further research in Muslim women in other countries is still needed.

5. Conclusions

Based on the results and discussion, the Islam-based caring intervention posed a challenge to nurses in terms of managing and supporting the spiritual well-being of women with breast cancer, currently receiving chemotherapy treatment. This is, therefore, recommended as suitable for sufferers in Indonesia, featuring the consistent practice of prayer and *dhikr* meditation as a part of daily life.

Author Contributions: M.K. and U.H. designed and guided the study, N.B. checked the formal analysis, while M.K. and U.H. scripted the article as well as the final version. All authors have read and agreed to the published version of the manuscript.

Funding: The authors make known the receipt of financial reinforcement provided, alongside article authorship and publication: The project was supported by the Graduate School, Prince of Songkla University, through the Thailand Education Hub for ASEAN Countries (TEH-AC) Scholarships, and Universitas Padjadjaran, Indonesia, for funding this study and providing the scholarship.

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

References

- Aisyah, Popy Siti. 2017. The correlation between being deeply absorbed in shalat with adaptation to illness in breast cancer patients undergoing chemotherapy. Paper presented at International Nursing Workshop and Conference on Professional Nursing Practice in Free Trade Era: Threat and Challenge, Surabaya, Indonesia, December 6–8; pp. 1–10.
- Al-Natour, Ahlam, Sharaf Mohammed Al Momani, and Abeer MA Qandil. 2017. The relationship between spirituality and quality of life of Jordanian women diagnosed with breast cancer. *Journal of Religion and Health* 56: 2096–108. [CrossRef]
- Aranda, Sanchia, P. Schofield, Lea Weih, D. Milne, P. Yates, and R. Faulkner. 2006. Meeting the support and information needs of women with advanced breast cancer: A randomised controlled trial. *The British Journal of Cancer* 95: 667–73. [CrossRef]
- Bai, Mei, and Mark Lazenby. 2015. A systematic review of associations between spiritual well-being and quality of life at the scale and factor levels in studies among patients with cancer. *Journal of Palliative Medicine* 18: 286–98. [CrossRef] [PubMed]
- Balaguer, Albert, Cristina Monforte-Royo, Josep Porta-Sales, Alberto Alonso-Babarro, Rogelio Altisent, Amor Aradilla-Herrero, and Mercedes Bellido-Pérez. 2016. An international consensus definition of the wish to hasten death and its related factors. *PLoS ONE* 11: 0146184. [CrossRef]
- Battaglini, C. L., J. P. Mihalik, Martim Bottaro, C. Dennehy, M. A. Petschauer, L. S. Hairston, and E. W. Shields. 2008. Effect of exercise on the caloric intake of breast cancer patients undergoing treatment. *Brazilian Journal of Medical and Biological Research* 41: 709–15. [CrossRef] [PubMed]
- Caldeira, Sílvia, Fiona Timmins, Emília Campos de Carvalho, and Margarida Vieira. 2017. Spiritual well-being and spiritual distress in cancer patients undergoing chemotherapy: Utilizing the SWBQ as component of holistic nursing diagnosis. *Journal of Religion and Health* 56: 1489–502. [PubMed]
- Cella, David F., David S. Tulsky, George Gray, Bernie Sarafian, Elizabeth Linn, Amy Bonomi, and Margaret Silberman. 1993. The Functional Assessment of Cancer Therapy scale: Development and validation of the general measure. *Journal of Clinical Oncology* 11: 570–79. [CrossRef]
- Chimluang, Janya, Sureeporn Thanasilp, Lanchasak Akkayagorn, Ratchaneekorn Upasen, Noppamat Pudtong, and Wilailuck Tantitrakul. 2017. Effect of an intervention based on basic Buddhist principles on the spiritual well-being of patients with terminal cancer. *European Journal of Oncology Nursing* 31: 46–51. [CrossRef]
- Côté, Andréanne, and Serge Daneault. 2012. Effect of yoga on patients with cancer: Our current understanding. *Canadian Family Physician* 58: 475–9.
- Cramer, H., R. Lauche, A. Paul, and G. Dobos. 2012. Mindfulness-based stress reduction for breast cancer—A systematic review and meta-analysis. *Current Oncology* 19: 343–52. [CrossRef]
- crossroadshospice.com. 2020. Crossroads Hospice: End-of-Life Family Care Services. Available online: www.crossroadshospice.com (accessed on 29 June 2020).
- Delgado-Guay, Marvin O., David Hui, Henrique A. Parsons, Kathy Govan, Maxine De la Cruz, Steven Thorney, and Eduardo Bruera. 2011. Spirituality, religiosity, and spiritual pain in advanced cancer patients. *Journal of Pain and Symptom Management* 41: 986–94. [CrossRef]
- DeSantis, Carol E., Freddie Bray, Jacques Ferlay, Joannie Lortet-Tieulent, Benjamin O. Anderson, and Ahmedin Jemal. 2015. International variation in female breast cancer incidence and mortality rates. *Cancer Epidemiology and Prevention Biomarkers* 24: 1495–506. [CrossRef] [PubMed]
- Fallah, R., M. Golzari, M. Dastani, and M. E. Akbari. 2011. Integrating spirituality into a Group Psychotherapy Program for women surviving from breast cancer. *Iranian Journal of Cancer Prevention* 4: 141–47.
- Fjorback, Lone Overby, Mikkel Arendt, Eva Ørnbøl, Per Fink, and Harald Walach. 2011. Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy—A systematic review of randomized controlled trials. *Acta Psychiatrica Scandinavica* 124: 102–19. [CrossRef] [PubMed]
- Hassanzade, Ramezan, Ghasem Janbabaie, Mojgan Salavati, F. Moonesi, Sara Khaleghi, and Hasan Siamian. 2012. Evaluation of group-therapy efficacy by cognitive-behavioral therapy method for promoting general health among breast cancer patients. *Health Med* 6: 1541–46.
- Hosseini, Leili, Farah Lotfi Kashani, Somayeh Akbari, Mohammad Esmaeil Akbari, and Saeedeh Sarafraz Mehr. 2016. The Islamic perspective of spiritual intervention effectiveness on Bio-Psychological Health Displayed by gene expression in breast cancer patients. *Iranian Journal of Cancer Prevention* 9: 6360. [CrossRef]

- Ijaz, Shahid, Muhammad Tahir Khalily, and Irshad Ahmad. 2017. Mindfulness in salah prayer and its association with mental health. *Journal of Religion and Health* 56: 2297–307. [[CrossRef](#)] [[PubMed](#)]
- Imamoğlu, Osman, and Ahmet Naci Dilek. 2016. Common benefits of prayer and yoga on human organism. *International Journal of Sport Culture and Science* 4: 639–51. [[CrossRef](#)]
- Ismail, Suhartini, and Urai Hatthakit. 2018. Islam-Based Caring for the harmony of life among Moslem critically Ill patients. *Evidence Based Care* 8: 28–38.
- Jafari, Najmeh, Ziba Farajzadegan, Ahmadreza Zamani, Fatemeh Bahrami, Hamid Emami, Amir Loghmani, and Nooshin Jafari. 2013. Spiritual therapy to improve the spiritual well-being of Iranian women with breast cancer: A randomized controlled trial. *Evidence-Based Complementary and Alternative Medicine* 2013: 1–9. [[CrossRef](#)]
- Kabat-Zinn, Jon. 2003. Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences* 8: 73.
- Lengacher, Cecile A., Versie Johnson-Mallard, Janice Post-White, Manolete S. Moscoso, Paul B. Jacobsen, Thomas W. Klein, and Raymond H. Widen. 2009. Randomized controlled trial of mindfulness-based stress reduction (MBSR) for survivors of breast cancer. *Psycho-Oncology* 18: 1261–72. [[CrossRef](#)] [[PubMed](#)]
- Lewis, Shirley, Naveen Salins, M. Raghavendra Rao, and Amrit Kadam. 2014. Spiritual well-being and its influence on fatigue in patients undergoing active cancer directed treatment: A correlational study. *Journal of Cancer Research and Therapeutics* 10: 676–80. [[CrossRef](#)]
- Loh, Keng Yin. 2004. Spiritual distress in a terminally ill patient with breast cancer. *International Journal of Palliative Nursing* 10: 131–32. [[CrossRef](#)]
- Lötzke, Désirée, Florian Wiedemann, Daniela Rodrigues Recchia, Thomas Ostermann, Daniel Sattler, Johannes Ettl, Marion Kiechle, and Arndt Büsing. 2016. Iyengar-yoga compared to exercise as a therapeutic intervention during (neo) adjuvant therapy in women with stage I–III breast cancer: health-related quality of life, mindfulness, spirituality, life satisfaction, and cancer-related fatigue. *Evidence-Based Complementary and Alternative Medicine* 2016: 1–8. [[CrossRef](#)]
- Martins, Helga, and Sílvia Caldeira. 2018. Spiritual distress in cancer patients: A synthesis of qualitative studies. *Religions* 9: 285. [[CrossRef](#)]
- Martins, Helga, Tiago Dias Domingues, and Sílvia Caldeira. 2019. Spiritual well-being in cancer patients undergoing chemotherapy in an outpatient setting: A cross-sectional study. *Journal of Holistic Nursing* 38: 68–77. [[CrossRef](#)]
- Martoni, A. A., S. Varani, B. Peghetti, D. Roganti, E. Volpicella, R. Pannuti, and F. Pannuti. 2017. Spiritual well-being of Italian advanced cancer patients in the home palliative care setting. *European Journal of Cancer Care* 26. [[CrossRef](#)]
- Nawansih, Witria Sekar, and Setiyo Purwanto. 2012. Perbedaan kekhusyukan shalat ditinjau dari jenis kelamin jama'ah halaqah shalat khusyuk. [The difference in the solemnity of prayer in terms of the sex of the congregation halaqah solemn prayer]. Paper Presented at Seminar Nasional Psikologi Islami, Surakarta, Indonesia, April 21.
- Oemiati, Ratih, Ekowati Rahajeng, and Antonius Yudi Kristanto. 2011. Prevalensi tumor dan beberapa faktor yang mempengaruhinya di Indonesia. [The prevalence of tumors and several factors that influence it in Indonesia]. *Buletin Penelitian Kesehatan* 39: 190–204.
- Phenwan, Tharin, Thanarpan Peerawong, and Kandawsri Tulathamkij. 2019. The meaning of spirituality and spiritual well-being among Thai breast cancer patients: A qualitative study. *Indian Journal of Palliative Care* 25: 119–23. [[CrossRef](#)]
- Pok-Ja Oh, R. N., and Soo Hyun Kim. 2014. The effects of spiritual interventions in patients with cancer: A meta-analysis. *Oncology Nursing Forum* 41: E290–E301. [[CrossRef](#)]
- Rosmani, Arifah Fasha, Noor Azura Zainuddin, Siti Zulaiha Ahmad, and Siti Zubaida Ramli. 2015. Bio Terapi Solat: 3D Integration in Solat Technique for Therapeutic Means. In *Advanced Computer and Communication Engineering Technology*. Cham: Springer, pp. 1001–11.
- Sajadi, Mahbobeh, Naimeh Niazi, Sharareh Khosravi, Abolghasem Yaghoobi, Mahboubeh Rezaei, and Harold G. Koenig. 2018. Effect of spiritual counseling on spiritual well-being in Iranian women with cancer: A randomized clinical trial. *Complementary Therapies in Clinical Practice* 30: 79–84. [[CrossRef](#)] [[PubMed](#)]
- Sayeed, Shabbir Ahmed, and Anand Prakash. 2013. The Islamic prayer (Salah>Namaaz) and yoga togetherness in mental health. *Indian Journal of Psychiatry* 55: 224–30. [[CrossRef](#)] [[PubMed](#)]

- Sibeoni, Jordan, Camille Picard, Massimiliano Orri, Mathilde Labey, Guilhem Bousquet, Laurence Verneuil, and Anne Revah-Levy. 2018. Patients' quality of life during active cancer treatment: A qualitative study. *BMC Cancer* 18: 1–8. [[CrossRef](#)] [[PubMed](#)]
- Specia, Michael, Linda E. Carlson, Eileen Goodey, and Maureen Angen. 2000. A randomized, wait-list controlled clinical trial: The effect of a Mindfulness Meditation-Based Stress Reduction Program on mood and symptoms of stress in cancer outpatients. *Psychosomatic Medicine* 62: 613–22. [[CrossRef](#)] [[PubMed](#)]
- Stutzman, Hannah, and Sam Abraham. 2017. A correlational study of spiritual well-being and depression in the adult cancer patient. *The Health Care Manager* 36: 164–72. [[CrossRef](#)]
- Suara, Eviwindha, Mardiyono Mardiyono, and Anggorowati Anggorowati. 2017. Relationship between demographic characteristics and spiritual wellbeing among cancer survivors. *Belitung Nursing Journal* 3: 405–11. [[CrossRef](#)]
- Thasaneesawan, Samonnan, Wongchan Petpichetchian, and Tippamas Chinnawong. 2018. A randomized controlled trial of a Buddhist-based Nursing Program for women with breast cancer. *Pacific Rim International Journal of Nursing Research* 22: 58–73.
- Villagomez, Liwliwa R. 2005. Spiritual distress in adult cancer patients: Toward conceptual clarity. *Holistic Nursing Practice* 19: 285–94. [[CrossRef](#)]
- Wahyuningsih, Fefi Eka, Muchlis Achsan Udji Sofro, and Meidiana Dwidiyanti. 2019. Spiritual well being of breast cancer patients undergoing chemotherapy through Mindfulness Based Spiritual. *Media Keperawatan Indonesia* 2: 83–89. [[CrossRef](#)]
- Wang, Yin-Chih, and Chia-Chin Lin. 2016. Spiritual well-being may reduce the negative impacts of cancer symptoms on the quality of life and the desire for hastened death in terminally ill cancer patients. *Cancer Nursing* 39: 43–50. [[CrossRef](#)]
- Werdani, Yesiana Dwi Wahyu. 2018. Effect of cancer related fatigue to the level of independence of cancer patients and caregiver stress level. *Folia Medica Indonesiana* 54: 108–12. [[CrossRef](#)]
- Zamaniyan, Sakineh, Jafar Bolhari, Ghasem Naziri, Majid Akrami, and Sara Hosseini. 2016. Effectiveness of Spiritual Group Therapy on quality of life and spiritual well-being among patients with breast cancer. *Iranian Journal of Medical Sciences* 41: 140–4. [[PubMed](#)]
- Zhang, Jun, Rui Xu, Bo Wang, and Jinxia Wang. 2016. Effects of mindfulness-based therapy for patients with breast cancer: A systematic review and meta-analysis. *Complementary Therapy Medicine* 26: 1–10. [[CrossRef](#)] [[PubMed](#)]



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).