

Spirituality of HIV-infected female patients treated in a secondary care hospital in Thailand: a preliminary investigation

Natawan Khumsaen¹, Panarat Chenchob², Supanee Peawnalaw³

¹Boromarajonani College of Nursing, Sanpasithiprasong, Faculty of Nursing, Praboromarajanok Institute, Thailand

²Boromarajonani College of Nursing, Buddhachinaraj, Faculty of Nursing, Praboromarajanok Institute, Thailand

³Boromarajonani College of Nursing, Suphanburi, Faculty of Nursing, Praboromarajanok Institute, Thailand

Abstract

Introduction: Globally, acquired immune deficiency syndrome (AIDS) and human immunodeficiency virus (HIV) infection are major public health concerns. As women experience HIV infection, it is important for them to find meaning in their lives. It is increasingly agreed in literature that spirituality play an important role in life, and has a significant impact on complexity of living of HIV-infected female patients.

Material and methods: This cross-sectional study aimed to evaluate two dimensions of spirituality of HIV-infected female patients in Thailand. Data were collected using a set of questionnaires, including JAREL spiritual well-being scale and spiritual practices checklist. Purposive sampling method was applied to recruit participants treated in a secondary healthcare setting in Thailand. Descriptive statistics were used to analyze data. This article presented preliminary data.

Results: The study included one hundred HIV-infected female patients, with mean age of 41.19 years (SD, 7.68). There was a wide range of time since HIV diagnosis (less than a year to more than 7 years) (mean, 3.24; SD, 1.16). Majority (95%) of women indicated adhering to antiretroviral therapy. The most frequently used spiritual practices were family activities, listening to music, and visiting a temple or quiet place. The overall spiritual well-being was at a moderate level (mean, 87.65; SD, 22.09). Moreover, there was a significant positive relationship between the overall spiritual well-being and the number of spiritual practices used ($r = 0.29, p < 0.01$).

Conclusions: Developing intervention programs focusing on the advantages of spirituality has the potential for health benefits in order to cope with the disease in HIV-infected female patients.

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Key words: spirituality, spiritual practices, spiritual well-being, HIV-infected female patients.

Introduction

Human immunodeficiency virus and acquired immune deficiency syndrome (HIV/AIDS) are the leading causes of death of adult women in Thailand. During the third decade of HIV era, new HIV epidemic continue to occur. One

of the most recent and rapid increases in the number of new HIV infections in the world is in Thailand [1]. According to a recent report from December 2019, there were 470,000 people living with HIV (PLWH) in Thailand, and there were 14,000 AIDS-related deaths [2]. More than 80% of AIDS patients have acquired HIV through heterosexual transmis-

Address for correspondence: Natawan Khumsaen
Boromarajonani College of Nursing, Sanpasithiprasong,
Faculty of Nursing, Praboromarajanok Institute, 224 Ponpan Road,
Tambon Naimuang, 34000, Muang district, Thailand,
e-mail: drnatawan@gmail.com

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sion, and more than 25% of HIV-infected people are women. HIV/AIDS mainly affects poor women, who often lack social, financial, and medical resources to deal effectively with their illness [3], leading to be more depressed than males, which can decrease immune system causing high mortality rate [4]. Female PLHIV are more likely to report lower social support, higher level of depression, lower level of well-being and functioning, and lower quality of life than their male counterparts [3, 5, 6]. As PLWH now live longer due to a combination of antiretroviral therapies and improvements in healthcare services, spiritual well-being (SWB) and spiritual practices (SP) become of paramount importance [7].

In literature, spirituality has been defined in various ways. Most of the definitions include experiences or practices that contribute to inner meaning and self-transcendence within or apart from a religious setting, a search for meaning in life, a life force that leads individuals to seek for a linkage within themselves and to others [8]. Nowadays, the concept of spirituality is gaining attention in the literature as an approach to individual's health that incorporates a couple of dimensions in PLHIV lives [8]. In the current study, two dimensions of spirituality, including spiritual practices (SP) and spiritual well-being (SWB) were examined. Also, the relationships between these two dimensions in Thai women living with HIV were investigated.

According to Fitzpatrick's model of life meaning, core aspect of spirituality is the search through meaning reflecting in health and wellness. Within this model, nursing interventions are proposed to assist individuals to enhance wellness through understanding, and helping them derive meaning from life experiences. Spiritual practices are considered as interventions increasing life meaning [9]. Understanding women's perception of their own SP and SWB is a vital step in developing intervention programs for HIV-positive Thai women.

Even though the current study was the first conducted among HIV-positive Thai women using Fitzpatrick's model [9], there are studies on various aspects of spirituality among PLWH. Particularly, in Western countries, there are many studies focusing on SP and SWB. A study by Sowell *et al.* among 184 women living with HIV reported that while spiritual activities increased, emotional distress decreased, which provided support for the benefits of SP [10]. Moreover, SWB was positively associated with quality of life (QoL) among 200 PLWH [11]. In a study of elderly depressed psychiatric patients, a positive relationship between SWB and depression was reported [12].

Spiritual practices play a major role in lives of individuals experiencing negative events. Many studies revealed that most Buddhists believe that spirituality is an important part of their life, and SP could promote recovery from and coping with chronic diseases, including HIV/AIDS [13, 14]. Several studies conducted in Asian countries reported that PLWH and patients with other chronic illnesses often turned to spiritual practices to help them cope with their diseases [15, 16]. Moreover, a number of studies conducted in Western countries suggested that there is a linkage between SWB and SP.

In Thailand, investigations on the relationship between the two concepts in chronic illnesses, including HIV/AIDS, are limited. Much more research is needed to document this relationship among Thai women living with HIV.

This study aimed to examine two dimensions of spirituality, such as SP and SWB, and to determine associations between these two dimensions of spirituality in HIV-positive Thai women. The study was planned as a first phase in gaining understanding that addressing spiritual needs of Thai women living with HIV could be useful in nursing practice. The long-term goal of the current study was to develop interventions or programs, which could be applied in HIV-positive Thai women to help them to increase the meaning in their lives and achieve higher level of wellness.

Material and methods

This study employed a descriptive cross-sectional design. It was conducted in an HIV clinic of a secondary care hospital in a rural area of Thailand. The clinic serves approximately to 400 patients, including 150 women; all these women are Thai-speaking and of Thai origin. Age range of the population is 18-62 years. A purposive sampling technique was used to recruit a sample of women living with HIV.

Potential individuals were asked to contribute to the study during their regular visits at the clinic. Based on a medium effect size, an alpha level of 0.05, and a power of 0.80, the calculated sample size required to be at least 83 participants [17]. Inclusion criteria were Thai-speaking HIV-positive Thai female, 18 years of age or older, with medical documentation at the clinic where data was collected. Participants' HIV status was confirmed with a Western blot results in their medical records. This study differed from previous studies conducted on similar topic in that it was a preliminary investigation that aimed to investigate the association of two dimensions of spirituality (i.e., SP and SWB) among HIV-infected female patients treated in an HIV clinic of a secondary healthcare setting in Thailand.

Instruments

Demographic questionnaire

This questionnaire gathered information on age, religion, marital status, employment status, education level, length of time since HIV diagnosis, CD4 count, and monthly income.

Spiritual well-being

JAREL spiritual well-being (JAREL-SWB) scale was originally developed in English by Jarel [18] as a general measure of SWB. It is a 25-item Likert-type scale questionnaire containing multiple-choice questions scored for analysis. Scores can be obtained from 3 domains, including belief/ faith, self-responsibility, and life satisfaction. Scores of each item range from 1 (lowest) to 5 (highest). Questions

included both negative and positive statements. Scores from negative statements were converted to a positive scale before summing all scores from both negative and positive statements. Possible scores can range from 25 and 125, in which a score between 93 and 125 mean a high level of SWB, 60-92 a moderate level, and < 59 a low level of SWB. Thai translation of the scale that documented the content as well as convergent and divergent validity were applied. Internal consistency of this scale was high, with a Cronbach's α coefficient of 0.88.

Spiritual practices

Spiritual practices checklist (SPC) contained 12 items, originally developed in English by Quinn Griffin *et al.* [19], including praying alone, praying with others, recalling positive thoughts, family activities, helping others, listening to music, going to a house of worship or quiet place, exercise, reading spiritual material, relaxation, meditation, and yoga. Participants were asked to indicate 'yes' or 'no' as to whether they use each of the provided spiritual practices. After answering the questions, participants were asked to identify 3 of the 12 SP they use most frequently. Content validity was previously reported [19].

These instruments were translated to Thai language by the authors, and then translated back to English by two bilingual experts, who are fluent in both languages to ensure translation accuracy. Questionnaires were validated in a pilot study among 30 participants prior to data collection of the actual research.

Data collection

Data collection was conducted using a set of questionnaires. Thai women living with HIV who have met the inclusion criteria were invited to participate in the study (150 eligible female patients). The researchers visited the ART clinic and collected data at the same day each week during the study period. Patients were approached by the researchers, and protocol of the study was briefly explained. Forty-five patients refused, and 105 patients were willing to participate in the study. Of those, five completed only socio-demographic questionnaire and were excluded from data analysis. Questionnaires were self-administered, and the researcher was available if patients had any queries.

Data management and analysis

Data were captured electronically on an Excel sheet. Statistical package for social sciences (SPSS) version 23.0 for Windows was used for analyzing the data. Descriptive statistics (mean, standard deviation, percentage, and frequency distribution) were performed to describe the sample. Before conducting main assessments, basic assumptions of the analysis were computed, and distribution of the analyzed variables were tested. Values of mean and standard deviation

were applied to describe continuous data (e.g., values of SWB), and frequencies with percentages for categorical variables (e.g., age group). Parametric methods, such as mean and standard deviation were used for normally distributed data. Pearson's correlation coefficients were applied to analyze associations between the variables. All statistical tests were two-tailed, and a statistical significance value was set at $p < 0.05$.

Ethical considerations

This study was approved by the Institutional Review Board (IRB) of College of Nursing (IRB approval No.: 035/62). Moreover, a permission from a secondary care hospital before approaching the potential participants was obtained. A signed consent form was acquired from all participants, with anonymity, confidentiality of responses, and voluntary nature of participation assured. Also, participants were informed that refusal to participate in the study would not affect their care.

Results

Sample characteristics

One hundred women participated in the study, and the average age was 41.19 (SD, 7.68) years. More than half of women completed elementary school ($n = 59$, 59%). A large majority of the participants indicated they were married ($n = 46$, 46%), and about half of them ($n = 55$, 55%) declared being employed outside their home. More than half of them received a monthly household income of 5,000-10,000 Bahts ($n = 59$, 59%). All of them were Buddhist.

The participants were also asked to respond to a series of questions about their health. There was a wide range of time since being diagnosed with HIV (less than a year to more than 7 years) (mean, 3.24; SD, 1.16). The average CD4 count of the participants was 505.53 cells/mm³. A majority ($n = 95$, 95%) of the participants indicated that they adhere to antiretroviral therapy. Frequencies and percentages were calculated on the survey responses from SPC to determine SP of the participants. A total score of the number of SP used by a participant was obtained by adding the number of 'yes' responses the person checked. Family activities ($n = 84$, 84%), listening to music ($n = 80$, 80%), and visiting a temple or quiet place ($n = 75$, 75%) were the most spiritual practices used.

A small number of the participants ($n = 10$, 10%) indicated that they were practicing yoga. Approximately half of the individuals indicated that they were practicing meditation or visited a temple/quiet place (49% and 53%, respectively). Frequencies and percentages of the participants' responses are listed in Table 1.

Frequencies and percentages of the participants' responses from spiritual practices checklist are shown in Table 2. Frequencies and percentages were calculated from the survey responses of SPC to determine spiritual practices of

Table 1. Sample characteristics (N = 100)

Variable	n (%)
Age (M, 41.19; SD, 7.68, range, 20-62 years)	
20-30	9 (9)
31-40	28 (28)
41-50	52 (52)
51-60	10 (10)
61-70	1 (1)
Marital status	
Single	12 (12)
Married	46 (46)
Widowed	33 (33)
Divorced	1 (1)
Separated	8 (8)
Employment status	
Employed outside home	55 (55)
Not employed outside home	45 (45)
Education level	
No certificate	3 (3)
Elementary level certificate	59 (59)
High-school certificate	35 (35)
Diploma/Associates/Technical/Vocational certificate	1 (1)
Others	2 (2)
Monthly income (in Bahts, 33 Bahts = US \$1)	
No income	3 (3)
Less than 5,000	37 (37)
5,000-10,000	59 (59)
10,001-15,000	1 (1)
Time since HIV diagnosis (years)	
Less than 1	4 (4)
1-3	27 (27)
4-5	29 (29)
6-7	21 (21)
More than 7	19 (19)

M – mean, SD – standard deviation

the participants. A total score of the number of spiritual practices used by a participant was obtained by adding the number of ‘yes’ responses the person checked. The most frequently used three practices were family activities (n = 84, 84%), listening to music (n = 80, 80%), and visiting a temple or quiet place (n = 75, 75%). A small number of participants (n = 10, 10%) reported practicing yoga.

Table 3 show frequencies and percentages of the most frequently used spiritual practices. Each participant was asked to indicate three practices she used most frequently. The most frequently used three practices were praying alone (n = 53, 53%), helping others (n = 47, 47%), and visi-

Table 2. Frequencies and percentages of spiritual practices checklist

Practice	n	Yes (%)
Family activities	84	84
Listening to music	80	80
Visiting a temple or quiet place	75	75
Helping others	73	73
Praying alone	70	70
Recalling positive memories	66	66
Exercise	56	56
Reading spiritual materials	52	52
Praying with others	49	49
Relaxation	44	44
Meditation	41	41
Yoga	10	10

Table 3. Frequencies and percentages of the most frequently used spiritual practices

Practice	n (%)
Praying alone	53 (53)
Helping others	47 (47)
Visiting a temple or quiet place	38 (38)
Family activities	30 (30)
Listening to music	22 (22)
Recalling positive memories	22 (22)
Praying with others	17 (17)
Relaxation	15 (15)
Meditation	13 (13)
Reading spiritual materials	12 (12)
Exercise	5 (5)
Yoga	1 (1)

ting a temple/quiet place (n = 38, 38%). Praying alone was the only practice that was reported as the most frequently used practice by more than half of the participants. Yoga was the practice used with the least frequency.

The overall JAREL-SWB score was 87.65 (SD, 22.09), and for the three sub-scales, the means were belief/faith (32.15; SD, 8.78), self-responsibility (24.07; SD, 14.95), and life satisfaction (20.43; SD, 4.76).

There was a significant positive association between the overall SWB and the number of SP used (r = 0.29, p < 0.01). Furthermore, there were significant positive correlations among the three dimensions of SWB and the number of SP used, including belief/ faith dimensions and number of SP used (r = 0.80, p < 0.01), self-responsibility dimensions and number of SP used (r = 0.91, p < 0.01), and

life satisfaction dimensions and number of SP used ($r = 0.30$, $p < 0.01$).

Discussion

The current study aimed to examine two dimensions of spirituality (SP and SWB), and to determine relationships between these two dimensions of spirituality in Thai women living with HIV. One hundred HIV-positive Thai women participated in this study. Our findings demonstrated that all participants used some spiritual practices. The most used practices were family activities, listening to music, and visiting a temple or quiet place. The overall score in JAREL-SWB was at moderate level, and the mean score was 87.65 (SD, 22.09) out of possible scores of 25-125. This can be explained by the fact that a significant number (46%) of women in the current sample were married at some point in their life, and were likely to have contracted HIV infection from their spouse. Literature regarding HIV in women mainly in developing countries emphasize that women are often at risk for secondary transmission [20]. As a result, the participants reported their SWB at a moderate level. This finding is important for promoting spiritual well-being.

Regarding the most used SP among the participants, three of the highest SP used were family activities, listening to music, and visiting a temple or quiet place. Family activities were reported as the most SP used. This might be explained by the fact that this study was conducted in a rural area, and the participants resided in extended families. In Thai context, family members are very close to each other, and jointly engage in family activities. Listening to music was rated as the second most used SP. SP are infused with music to intensify the trans-personal components of meditations and rituals. Therefore, listening to music can be used as a means to facilitate feelings of meaning and psycho-spiritual integration of life experiences in terminally ill patients [21].

Visiting a temple or quiet place was ranked as the third most SP used. All participating women were Buddhists, and they visited a temple or quiet place to practice religious activities, such as praying, paying respect to Buddha, giving food to monks, practicing meditation, and listening to monks' teaching. These practices are important for improving inner strength, a sense of connectedness with a higher power, hope, and a peaceful life [22]. O'Brien indicated that spiritual practices are important for finding spiritual meaning in the experience of illness [23]. This is essential for promoting spiritual well-being.

Our findings revealed a significant positive relationship between the overall SWB and the number of SP used ($r = 0.29$, $p < 0.01$). Although this is considered as low correlation, it has a good potential to conduct further studies to examine spirituality among Thai female PLHIV. Additionally, the findings of this study are congruent with those of previous research linking spirituality to health. Delgado proposed that spirituality transcends religious or cultural boundaries, and is characterized by faith, search for purpose in life, and connection with others [24]. Dalmida identified spirituality as a resource

used by HIV-infected women to maintain psychological well-being and enhance health-related quality of life [25]. Baldacchino and Draper reported that spiritual coping strategies involving relationships with others helped patients to cope with their illnesses [26]. Spirituality plays a major role in an individual's mindset. In the Thai context, religion not only serves as an important base for facilitating spirituality, but also has other functions, including social, physical, and psychological in PLHIV [27]. The teachings of Buddhism and dharma are at the heart of many terminally ill patients and their families. Theravada Buddhism is the core religion of most of Thais. Most behaviors, ways of life, beliefs and spirituality of Thais, and the majority of other aspects of the Thai culture are all influenced by Buddhist principles and Buddha's teachings [28]. Studies reported that positive beliefs, comfort, and strength gained from religion, prayer, and meditation contribute to healing and sense of well-being. Helping PLHIV needs a holistic approach, and more attention should be paid to the whole person [29, 30].

Future research

In order to achieve a representative sample of female PLHIV in Thailand, additional research should be conducted with larger sample size of HIV-infected female patients. Also, further studies should incorporate more variables to investigate the significance of spirituality. An intervention study can also be conducted to promote spirituality, and to confirm causal relationships within the model and the need for supportive interventions for HIV-positive female patients.

Limitations

Several limitations of the study should be reported. First, the current study was conducted in one setting only. Data were collected in an HIV clinic located in a rural area of Suphanburi Province, Thailand, and patients were primarily provided with services through a primary care of Thai government. Therefore, this might not allow generalizability of the findings to other locations. Second, this study employed a cross-sectional study design that cannot establish causal inferences. Third, all data from the respondents were self-reported. Some of them may have over- or underreported their SP and SWB.

Despite the limitations, our findings provide preliminary data for health professionals. This study also show important directions for future work among Thai women living with HIV. Our plans for future studies are to compare dimensions of spirituality in women living HIV and women with other chronic diseases. Moreover, a study on various dimensions of spirituality (SWB and SP) in relation to several physical and psychological outcomes of HIV self-management is of our interest.

Conclusions

Spirituality is an important component in caring for women living with HIV. To date, healthcare interventions

concentrated on providing comfort and care. The current study provides preliminary data on SP and SWB in Thai women living with HIV. Nurses can implement interventions or programs based on the importance of life meaning and SP that reflect individuals' connection to themselves, to others, and existence outside of the self. For nurses caring for HIV-positive women, it is imperative to recognize the power of spiritual dimension of their patients, since this dimension can be added into nursing care.

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Conflict of interest

The authors declare no conflict of interest.

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