Spirituality Wellbeing and Associated Factors Among Cancer Patients in Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia

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Abstract: Background: even though worldwide studies explored the spiritual and religious practice can help the effect patients fine-tune the effect of cancer, little is known about spirituality wellbeing in Ethiopia, and therefore this study is important to assess the spirituality and associated factor among cancer patients in Addis Ababa, Ethiopia. Objective: To assesses spirituality wellbeing and associated factors among cancer patients in Tikur Anbessa specialized hospital Addis Ababa, Ethiopia, 2021. Methodology: Institution-based cross-sectional study was conducted among cancer patients (N=385). Attending Tikur Anbessa specialized hospital Addis Ababa. Data were entered into Epi-data version 4.6. And exported to SPSS version 25 for further statistical analysis and were analyzed and use Descriptive statistics. The association between the independent variable has been analyzed and the multivariate analysis has been performed. Result: 422 cancer patients were included in the study. Which gave response rate was (91.3%), seventy-six (19.74%) participants had good spirituality wellbeing, (53.8%) participant were female factors of respondents (AOR=1.12 (95%CI=1.08, 2.07), religion education (AOR=2.01 (95%CI=1.12, 2.92), education status (AOR=4.03 (95%CI=1.73, 9.35), and comorbidity (AOR=1.32 (95%CI=1.08, 2.65) significantly associated with spirituality well-being. Conclusion: In this study factor that was the sex of respondents, the educational status of respondents, those respondents having comorbidity, and respondents having religious education were significant associated with spiritual wellbeing to maintain spiritual wellbeing focuses on religious education and focus on the prevention of chronic disease to tackle the comorbidity disease.

Keywords: Cancer, Spirituality, Addis Ababa, Ethiopia

1. Introduction

Spirituality is an intellect of connection to something bigger than us. It is a universal human experience that touches almost all individuals in the world [1], and specific to the person and deals with how individual interacts with and experiences their “God” or ultimate reality. Some may find that their spiritual life is long-windedly connected to their connotation with a religious place of worship, mosque, or synagogue [2]. Others may pray or find comfort in a personal relationship with God or a higher power [3]. Still, others seek meaning through their connections to nature or art [4]. Spirituality encompassed a broad belief system that included human rights, religion, experiences, and culture [5]. Spirituality may touch how a patient survives of the cancer experience, bargains sense, and amity [6]. Spirituality is the foundation of strength that helps cancer patients to cope, find
meaning, and improve from treatment [7]. Accordingly, 88% of cancer patients considered spirituality to be at least somewhat important in their treatment decisions and frequency of extreme importance [8]. Therefore, this study spirituality must recognize as a factor that a feeling improved quality of life, quality of care for the patient and family members [9]. According to WHO 2017, each year more than 10 million people are diagnosed with cancer and around 6 million people die due to cancer [10, 11]. Although data about cancer prevalence is limited in Ethiopia, the ministry of health report estimated that each year, there could be more than 150,000 cancer cases, and more than 2000 adult patients with cancer visited Tikur-Anbessa Specialized Hospital in 2012 [12]. In Ethiopia cancer is becoming a worrying issue. Besides poor cancer screening, diagnosis, and treatment procedures cancer covers the indispensable account of all deaths in the country [13]. Cancer diagnosis and treatments have the opposite effect on spirituality. Feeling uncomfortable, worried, or scared about the real or possible situation and feeling of depression common patient [14].

According to studies conducted in Ethiopia among cancer patients, negative religious coping (e.g., most patients believe “cancer is caused by a devil or a curse from God as a consequence of bad did of individuals”) [15-17]. Studies explored that spiritual or religious practices can help patients fine-tune the effects of cancer and its treatment. spirituality is inclined to experience enlarged hope and sanguinity, liberty from regret, and a state of mind of internal harmony [18]. The gaps in spirituality studies may hinder health care providers from effectively assessing spirituality and providing spiritual care. Therefore, the purpose of the current study is to assess the level of spiritual wellbeing and associated factors among cancer patients in TASH, Ethiopia. The study was done by Cassandra Alcaraz, et, at in USA 2014 the study shows that spirituality wellbeing assessed African Americans had (<.001) compare to non-African Americans, the Analysis Adjusting comorbidity and income moderately impact spirituality and cancer-related problem [3]. A study done by the AYA HOPE study shows that the majority of participants were male and unmarried. 65% of participants were diagnosed with early-stage disease (stage I/II) and. 28% had severe or chronic comorbidity [19]. The study conducted by (John R. Peteet, MD1) the result shows that 100 patients with advanced cancer in an outpatient palliative care clinic in Texas, most of whom considered themselves spiritual-religious, spiritual pain was both common and associated with lower self-perceived religiosity and QOL [20]. In the study conducted by Wataru Noguchi, 2006 the result showed that the average patients accounted for 54.4% of the subjects. More than 10 years of education was reported by 80.5% of subjects, and 91.3% were married [21]. The purpose of this study was to examine the level of patient’s spirituality, spiritual wellbeing among patients undergoing cancer treatment, inpatients, and outpatients because of Tikur Anbessa specialized hospital’s largest cancer patient population in the country.

2. Methods and Material

2.1. Study Design Study Setting Study Period

A cross-sectional study design was used among cancer patients who came for treatment beginning and follow-up in Tikur Anebessa specialized hospital (TASH) from February 08 to March 08,202. Tikur Anebessa specialized hospital (TASH), it provides cancer diagnosis treatment service in two different places in Addis Ababa with a total of 45 beds in both main oncology center it is located in Tikur Anebessa hospital (OPD inpatient, radiation therapy center) and subunit amistegna (5gna) located at lideta, serve as a daycare, pediatric oncology center, and inpatient.

2.2. Population, Sample Size Determination, and Sampling Procedure

After obtaining ethical clearance and permission from Tikur Anbessa Specialised Hospital. We conducted a study among cancer patients who came for initiation of treatment and follow up in TASH. The sample size was determined by using the formula for estimating a single population proportion formula. Single proportion formula was used with 50% proportion and after adding 10% response rate sample size was 385. Study participants were selected using a systematic random sampling technique and proportionally allocated in each hospital.

2.3. Data Collection Tool and Procedure

All of the FACIT-Sp questionnaires were designed for interview-based and use a 5-point Likert type scale to measure patient-reported HRQOL (0=Not at all; 1=A little bit; 2=Somewhat; 3=Quite a bit; and 4=Very much). The recall period for each question is seven days. The FACIT-Sips validated and reliable tool with internal reliability of (α=0.81–0.88) and validity of (r=0.58). The questionnaire was translated from English to Amharic and back-translated to English to confirm the accuracy of the Amharic version before using for data collection by two independent translators. Face to face interview was conducted among cancer patients in the selected study areas using interviewer-administered questionnaires and clinical data collected from the patient’s files. one supervisor was recruiting and five data collectors were also recruiting among BSc nurses. All cancer patients who fulfill the inclusion criteria were interview. The principal investigator and supervisor were made frequent checks on the data collection process to ensure the completes and consistency of the gathered information.

2.4. Study Variables

The dependant variable was Spirituality wellbeing. The independent variables were included, Socio-demographic characteristics Sex, Age, Religion, marital status, monthly income. Clinical characteristics Type of cancer Comorbidity Stage of cancer educational characteristics religious education. Educational status.
2.5. Operational Definition

Good spiritual well-being: participants score ranges from 0 to 4. The total score is the sum of scores of subscales, which ranges from 0 to 48. 1. Record answers in the "item response" column. If missing, mark with an X; 2. Perform reversals as indicated, and sum individual items to obtain a score; 3. Multiply the sum of the item scores by the number of items in the subscale, then divide by the number of items answered. This produces the subscale score; 4. with a higher score signifying greater SWB of the FACIT-sp12 questions. Questions High spiritual well-being was defined as a FACIT-Sp total score of ≥ 36. Poor spiritual well-being: participants with a low score of the FACIT-sp12.

2.6. Data Quality Management

Study subjects to ensure validity and reliability; the pretest of the tool which is adapted from previous related studies was carried out by interviewing 5% of the sample size at the source of population. Then the tool was refined to incorporate the challenges/issues observed during pretesting. The data were collected by five trained BSc Nurses. The completeness and accuracy of the data were checked by one supervisor and principal investigator during data collection time every day. During the data collection, each participant's medical record card was registered to prevent repetition. To protect the patient's privacy anonymous and voluntary participation was kept.

2.7. Data Analysis Used

Data was entered into EPI data version 4.1 software and export to SPSS version 25. Descriptive statistics such as frequency and percentages were done to describe and displayed in tables, graphs, and charts. R squared was used to identify significant factors with a 95% confidence level and a P-value of less than 0.05. To determine the relationship between the independent and dependent variables, bivariate and multivariate analysis was conducted.

3. Results

3.1. Socio-demographic and Clinical Characteristics of Cancer Patients

385 cancer patients make a response rate of 91.3%. The majority 207 (53%) were female, 269 (69.9%) of them were married, Most of the study participants 223 (57.9%) came from Outside Addis Ababa, More than half of respondents religion was Orthodox 202 (52.5%) followed by Muslim 102 (26.5%), a significant proportion of participant income earn 1001-3000 these, account 110 (28.6%) of the participant, about 320 (83.1%) had family support, 66 (17%) participants completed higher education, 91 (23.6%) of the primary school these accounted the largest proportion of the study (Table 1).

3.2. Types of Cancer Among Cancer Patients

All subjects had been diagnosed with a different type of cancer, seventy-three of cancer patients had colonic cancer, forty-nine of them have breast cancer, twenty-nine cancer patients are sarcoma, and sixteen of them had prostate cancer the rest one hundred sixty-one are categorized as another type of cancer (Figure 1).

3.3. Spirituality Wellbeing Level

Cancer patients on spirituality wellbeing scores were ranged from 0-48 points with a mean knowledge score of
3.4. Factors Associated with Spirituality Wellbeing Cancer Patients

In the binary logistic regression model sex, area of residence, monthly income, educational status, religious education, comorbidity, and occupational status were significantly associated with the spirituality wellbeing of cancer patients with a p-value of less than 0.5. In multiple logistic regression models, the sex of the participant, religious education, educational status, and comorbidity were significantly associated with the spiritual wellbeing of a cancer patient with a p-value less than 0.05. However, area of residence, monthly income, and occupational status were not significantly associated with the spiritual well-being of a cancer patient (Table 2). The sex of the respondent was significantly associated with the spiritual well-being of the cancer patient. Being male gender was 12% (AOR=1.12 (95%CI: 1.08, 3.07) more increase to have better spirituality wellbeing as compared to female gender of cancer patients. The religious education status of the respondent was significantly associated with the spiritual well-being of a cancer patient. The cancer patient who had religious education was 2 times (AOR=2.01 (95%CI: 1.12, 2.92) have better spirituality wellbeing as compared to cancer patients who had not religious education (Table 2). The educational status of the respondent was significantly associated with the spiritual well-being of the cancer patient. A cancer patient who had an educational status college diploma and above was 4 times (AOR=4.03 (95%CI: 1.73, 9.35) have better spirituality wellbeing as compared to respondents who could not read and write. Comorbidity was significantly associated with the spiritual well-being of a cancer patient. The cancer patient who had not comorbidity was 32% (AOR=1.32 (95%CI: 1.08, 2.65) more increase to have better spirituality wellbeing as a compared cancer patient who had comorbidity (Table 2).

**Table 2.** Multiple logistic regression factors associated with spirituality among cancer patients in Addis Ababa, Ethiopia, 2021 (N=385).

| Variable                      | spiritual wellbeing | COR (95%) | AOR (95%) | p-value  |
|-------------------------------|---------------------|-----------|-----------|----------|
|                               | Good (%)            | Poor (%)  |           |          |
| Sex                           |                     |           |           |          |
| Male                          | 38 (9.9)            | 140 (36.4)| 1.2 (1.054.74) | 1.12 (1.08-3.07) | 0.012** |
| Female                        | 38 (9.9)            | 169 (43.9)| 1         | 1        |        |
| Religious education           |                     |           |           |          |
| Yes                           | 57 (14.8)           | 83 (47.5) | 2.06 (1.17, 3.6) | 2.01 (1.12, 2.92) | 0.03** |
| No                            | 19 (4.9)            | 126 (32.7)| 1         | 1        |        |
| Educational status            |                     |           |           |          |
| Cannot read and write         | 13 (3.4)            | 62 (16.1) | 1         | 1        |        |
| Able to read and write        | 5 (1.3%)            | 46 (11.9) | 0.76 (0.03-91.5) | 1.08 (0.47-2.47) | 0.854 |
| Primary school (1-8)          | 17 (4.4)            | 74 (19.2) | 0.85 (0.4-61.6) | 0.77 (0.36-1.65) | 0.51  |
| Secondary school (9-10)       | 10 (2.6)            | 55 (14.3) | 1.72 (0.6-93.1) | 0.66 (0.21-2.10) | 0.48  |
| Preparatory (11-12)           | 14 (3.6)            | 23 (6)    | 1.80 (1-3.23) | 0.57 (0.17-1.91) | 0.36  |
| Collage and above             | 17 (4.4)            | 49 (12.7) | 4.63 (2.30-9.3) | 0.57 (0.17-1.91) | 0.36  |
| Comorbidity                   |                     |           |           |          |
| Yes                           | 60 (15.6)           | 213 (55)  | 1.69 (1.11-3.1) | 1.32 (1.08-2.65) | 0.01** |
| No                            | 16 (4.2)            | 96 (24.9) | 1         | 1        |        |

** indicates that variable significantly associated factors at p-value<0.05
4. Discussion

This study assessed spirituality and associated factors among cancer patients in Addis Ababa, Ethiopia, 2021. In this study, the proportion of cancer patients with good spiritual wellbeing was (19.74%). This finding is almost similar to the result of studies conducted in Israel (25%) and Turkey (23.8%). In contrast to this, it was lower than a study conducted in the USA (68%), and in India (60%). The difference might come from a different area, geographical location, variation tool compositions.

The sex of the respondent was significantly associated with the spiritual well-being of the cancer patient. Being male gender was 12% more increase have better spirituality wellbeing as compared to female cancer patients. It is similar to a study done in Japan. The difference came to women's poorer spiritual wellbeing because women with cancer experienced poor emotional, cognitive, role function, and financial difficulty than male cancer patients.

Religion education of the respondent was significantly associated with the spiritual well-being of a cancer patient. The cancer patient who had religious education was 2 times (AOR=2.01 (95%CI: 1.12, 2.92) better spirituality wellbeing as compared to cancer patients who had no religious education. It is similar to a study done in Turkey study showed that the religious education of the respondents was significantly associated with the spiritual wellbeing of cancer patients. This finding could be explained as the more too closer to religious education many cancer patients viewed their cancer healing to come the opportunity to get closer to God.

The cancer patient who had an educational status college diploma and above was 4 times (AOR=4.03 (95%CI: 1.73, 9.35) have better spirituality wellbeing as compared to respondents who could not read and write. Cancer patients who are more educated had a high positive perception of their illness, to get information about the disease condition and better understand the instructions given on drug usage, which invariably enhances their QoL. A cancer patient who had not comorbidity was 32% (AOR=1.32 (95%CI: 1.08, 2.65) more increase to have better spirituality wellbeing as a compared cancer patient who had comorbidity. This could be due to the reason that those who had co-morbid disease had an additional complication in their cancer treatments and worry reducing their overall health-related quality of life. This could also be due to the contributions of different chronic diseases in patients with cancer and the side effects/drug interactions of the different drugs, which might impair all aspects of quality of life.

5. Conclusion and Recommendation

In this study factor that was the sex of respondents, the educational status of respondents, those respondents having comorbidity, and respondents having religious education were significant associated with spiritual wellbeing to maintain spiritual wellbeing focuses on religious education and focus on the prevention of chronic disease to tackle the comorbidity disease.

A concreated effort must be made to improve the spirituality wellbeing of cancer patients in oncology health care services in Ethiopia counseling cancer patients during screening and treatment. Further large-scale study preferably cohort study might be necessary to examine and address the problems of cancer patients. To prevent low spiritual wellbeing, Ethiopia needs a multi-sectoral approach to tackling spirituality wellbeing, which includes the involvement of the ministry of health (policymakers), training institutions, hospitals, and communities.

List of Abbreviations

AOR: Adjusted Odd Ratio, AYA: Adolescent and young adult, CI: Confidence Interval, FACIT-SP: Functional Assessment of Chronic Illness Therapy-Spiritual Wellbeing, HPV: Human papillomavirus, QoL: Quality of Life, R/S: Religion and Spirituality, SPSS: statistical package for social sciences, SpN-Qu: Spiritual need questionnaire SWB: Spiritual Well Being, TASH: Tikur Anebessa Specialized Hospital, TNM: Tumor, Node, Metastasis USA: the United States of America, WHO: World Health Organization.

Authors’ Contribution

All the authors have an equitable contribution.

Ethics Approval and Consent to Participate

The study was conducted following the declaration of Helsinki. Ethical clearance and approval were obtained from Tikur Anebessa specialized hospital (TASH) ethical review Committee and the letter was submitted to the oncology unit. After explaining the procedure benefit and risks of the study in detail informed verbal consent was sought from all study participants. All the participants were reassured of the anonymity and as a personal identifier was not used.

Availability of Data

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Source of Funding

The cost of the study was covered by Addis Ababa University.

Consent for Publication

Not applicable.
Disclosure

All the authors do not have any possible conflicts of interest.

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References

[1] Meyer MA, Kamaka ML. New, Old Wisdom–Spirituality, Creativity and Science Reimagined: Ancestral Wisdom for These Times. Educ Perspect. 2019.

[2] Bhawuk DPS. Culture’s influence on creativity: The case of Indian spirituality. International Journal of Intercultural Relations. 2003.

[3] Irradiation of Tumor Cells Up-Regulates Fas and Enhances CTL Lytic Activity and CTL Adoptive Immunotherapy.

[4] Spirituality in the counselor education curriculum: A national survey of student perceptions 2012.

[5] Brown B. The gifts of imperfection: let go of who you think you’re supposed to be and embrace who you are. Nautilus Book. 2017.

[6] Hibbard JH, Mahoney E, Sonet E. Does patient activation level affect the cancer patient journey? Patient Educ Couns. 2017.

[7] Farsi Z. The Meaning of Disease and Spiritual Responses to Stresses in Adults with Acute Leukemia Undergoing Hematopoietic Stem Cell Transplantation. J Nurse Res. 2015;

[8] Visser A, de Jager Meezenbroek EC, Garssen B. Does spirituality reduce the impact of somatic symptoms on distress in cancer patients? Cross-sectional and longitudinal findings. Soc Sci Med. 2018.

[9] WHO. Media center Cancer. World Heal Organ. 2017.

[10] World Health Organization. The top 10 causes of death - Factsheet. WHO reports? 2018.

[11] Board E, Prevalence C, Health TW. Cancer Pain Management in Developing Countries. 2009; XVII (1): 1-4. 26.

[12] Tadele N. Evaluation of quality of life of adult cancer patients attending take ambush specialized referral hospital, Addis Ababa Ethiopia. 2015; 25 No. 1 (3): 53-62.

[13] Habtu Y, Johannes S, Laelago T. Health seeking behavior and its determinants for cervical cancer among women of childbearing age in Hosanna Town, Hadiya zone, Southern Ethiopia: Community-based cross-sectional study. BMC Cancer. 2018.

[14] Abebe SM, Andargie G, Shimeka A, Alemu K, Kebede Y, Wubeshet M, et al. 2017.

[15] Worku T, Monist Z, Semahgen A, Tesfaye G. Rehabilitation for cancer patients at Black Lion hospital, Addis Ababa, Ethiopia: A cross-sectional study. BMC Palliat Care. 2017.

[16] Mesafint Z, Berhane Y, Desalegn D. Health Seeking Behavior of Patients Diagnosed with Cervical Cancer in Addis Ababa, Ethiopia. Ethiop J Health Sci. 2018.

[17] Anteneh A, Araya T, Magana A. Factors associated with place of death in Addis Ababa, Ethiopia. BMC Palliat Care. 2013.

[18] Riba MB, Donovan KA, Andersen B, Braun I, Breibart WS, Brewer BW, Buchman LO, Clark MM, Collins M, Corbett C, Fleishman S. Distress management, version 3.2019, NCCN clinical practice guidelines in oncology. Journal of the National Comprehensive Cancer Network. 2019 Oct 1; 17 (10): 1229-49.

[19] Smith AW, Parsons HM, Kent EE, Bellizzi KM, Zebrack BJ, Keel G, Lynch C, Rubenstein MB, Keegan TH. Unmet support service needs and health-related quality of life among adolescents and young adults with cancer: the AYA HOPE study. Frontiers in Oncology. 2013 Apr 8; 3: 75.

[20] A systematic review. J Pain Symptom Manage [Internet]. 2011; 41 (4): 728–53. Available from: http://dx.doi.org/10.1016/j.jpainsymman.2010.06.023.

[21] Noguchi W, Morita S, Ohno T, Aihara O, Tsuji H, Shimozuma K, Matsushima E. Spiritual needs in cancer patients and spiritual care based on logotherapy. Supportive Care in Cancer. 2006 Jan; 14 (1): 65-70.