

FACTORS ASSOCIATED WITH QUALITY OF LIFE AMONG CERVICAL CANCER SURVIVORS: SYSTEMATIC LITERATURE REVIEW

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Abstract

Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 and an incidence 266,000 cases of death. Cancer no longer focuses only how long a patient can survive but also how is patient's health related to quality of life patient. The quality of life among cervical cancer survivors is related to various factors. The aim of this study was to determine the factors associated with quality of life among cervical cancer survivors. This study used a systematic literature review. The following databases were searched; PubMed and Sciencedirect by entering keyword: quality of life, health related quality of life, HRQoL, cervical cancer. Articles published from 2008-2018; The results show factors associated with quality of life among cervical cancer survivors include the type of treatment, stage of cervical cancer, time of treatment, comorbidity, self-esteem, age, education, health insurance, economic status, social and family support; Conclusion: The authors have identified factors that significantly contribute to good quality of life including patients who received only surgery, early stage of cervical cancer, long term treatment, less comorbidity, higher self-esteem, younger age, higher education, having health insurance, higher household income, good social support and good family support.

Keywords: Factors, Quality of life, Health Related Quality of Life, HRQoL, Cervical Cancer

1. INTRODUCTION

Cancer is one of the leading causes of death in the world. One of the most common cancers among women are cervical cancer. According to the World Health Organization (WHO), cervical cancer is the fourth most frequent female cancer with estimated incidence 570,000 new cases in 2018 and mortality 266 000 cases [1].

Cervical cancer causes many problems for women who experience experience medical, physical, psychological, social, functional and sexual disruptions [2]. Cancer is no longer just focuses on how long patients can survive but also how health-related quality of life [3]. World Health Organization (WHO) defines quality of life (QoL) as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns [4]. According to Dow KH (1999) in Zeng (2010) [5]. quality of life that a person can become healthy, independent, and regain life like never before in the form of psychological wellbeing and a good relationship with the social environment and family.

Cervical cancer patients has been shown to have poor quality of life than other cancer patients [6]. It is important to assess the quality of life to patients with cervical cancer. Concern for the health-related quality of life has grown in patients with cervical cancer as a life expectancy[7]. This is because the quality of life not only useful for optimally treat symptoms of cancer but also as additional information in monitor and evaluate the effectiveness of interventions and treatment provided^[1] and evaluating the patient's response to cancer and the treatment performed [6] because in

cancer treatment often raised concerns about the physical, psychological, disorder of the body's role, as well as the symptoms that can cause distress [8].

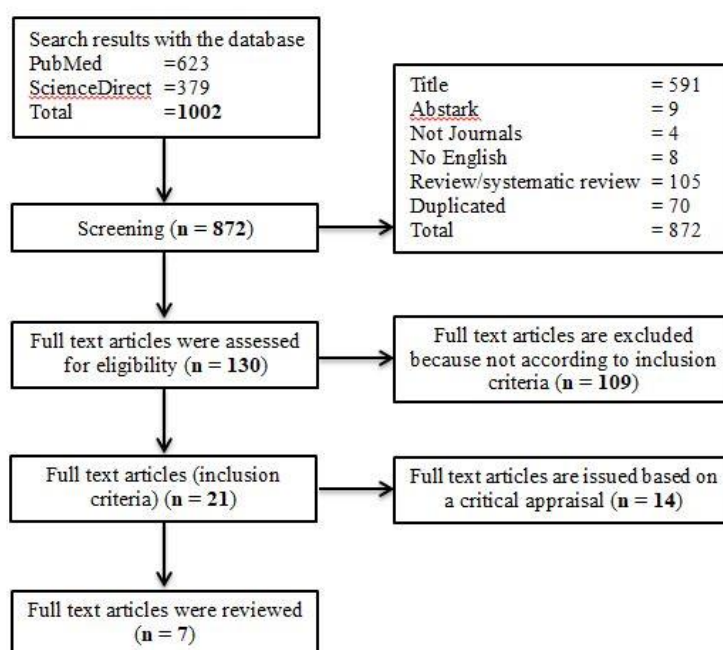
Quality of life in patients with cervical cancer associated with various factors. Poor quality of life associated with the type of treatment (radiation therapy with or without chemotherapy), comorbidities who owned the patient before the diagnosis of cancer, low social support and low levels of education[9]. Quality of life is associated with the type of treatment of cervical cancer (single operation) [9], time of treatment, younger age, higher self-esteem, good social support [6], household income (economic status) is high[10], health insurance[11], in the form of satisfaction with family support, and prompt diagnosis is done at an early stage of disease^[12]. Therefore, the study of factors associated with quality of life is important to be able to address the issue of health-related quality of life in patients with cervical cancer [8].

2. MATERIALS AND METHODS

Search and Selection of Literature

This study uses a systematic literature review, a literature search was reported to identify, assess and interpret the entire findings of the research topic "The factors associated with quality of life in patients with cervical cancer". Next create a framework (inclusion and exclusion criteria) using PEOS (Population were patients with cervical cancer; Exposure/Event is the quality of life; Outcomes are the factors that affect the quality of life; and the Study design was quantitative). After that perform literature searches performed by tracing two databases, namely PubMed and ScienceDirect by entering keyword: quality of life, health related quality of life, HRQoL, cervical cancer, Then do further screening in accordance with article framework to find the proper reference and complete. Articles were screened performed data extraction, then do the critical appraisal with a checklist or tool Joanna Briggs of Joanna Briggs Institute. After a critical appraisal process is completed electeddo a final review.

Figure 1. Prism Flow Diagram



3. RESULTS AND DISCUSSIONS

The findings obtained by systematic searches of articles published in 2008-2018, the author and the source of the data obtained came from the United States (n = 1), China (n = 3), Taiwan (n = 2), Japan (n = 1), and India (1). 7 articles taken in this systematic literature review is a good quality indexed journals with the Scopus Q1, Q2, and Q3 and has performed critical appraisal.

Factor associated with quality of life among cervical cancer survivor:

a. Type of treatment

The study result reported by Osann et al. (2014), patients who received radiation with or without chemotherapy-related to poor quality of life (FACT-Cx, $P = 0.014$; FACT-TOI, $P = 0.006$) than patients who do single operation. Which are similar to the study result reported by Kobayashi et al. (2009), no significant difference in the quality of life among patients undergoing radiotherapy treatment, chemoradiotherapy, radiotherapy postoperatively. However, there are differences in the quality of life in patients with cervical cancer who perform radiation treatment in one single operation. Where patients receiving radiation treatment had a poor quality of life than patients who only perform operations only. The study result reported by Rahman et al. (2017), no significant difference in quality of life between patients who do radiation treatment to patients who do single operation.

b. Stage of cervical cancer

The study result reported by Ding et al. (2013), patients with early-stage (I and II) cervical cancer express high quality of life in every domain of assessment, the results of the physical, social/emotional and family are on the high score. The study result reported by Rahman et al. (2017), cancer stage only a small impact on quality of life, but patients were identified at the early stage, have a better quality of life ($P = <0.05$). The study result reported by Kobayashi et al. (2009), there was no significant difference in the relationship between the stage of cancer and quality of life in patients with cervical cancer. there was no significant difference in the aspect of quality of life between the early stages of the disease and the advanced stage of disease (physical: $P = 0.742$; social/family: $P = 0.496$; emotional: $P = 0.375$; functional: $P = 0.563$; and the total score of quality of life: $P = 0.144$).

c. Duration/time of treatment

The study result reported by Li et al. (2015), time since treatment showed significant results, 16% of the variance of quality of life, where those who do the treatment of cervical cancer longer have a poor quality of life. The study result reported by Rahman et al. (2017), patients who have received treatment was longer have a better quality of life as expressed in the functional assessment of the health scores increased physical status was significantly ($P = 0.04$), and emotional function ($P = 0.001$) of treatment was performed.

d. Comorbidity

The study result reported by Osann et al. (2014) claimed 40% of patients reported not to have comorbidities prior to diagnosis of cervical cancer, while 32% of patients reported having more than three comorbidities prior to diagnosis of cervical cancer. Comorbidity owned 21% of patients include back pain, 18% depression, 16% of migraine headaches and 15% anxiety. Comorbidity was significantly associated with poor quality of life ($P < 0.001$ for FACT FACT-Cx and TOI). Patients who have more comorbidities than one having a poor quality of life. The study result reported by Zhou et al. (2016) stating the amount of comorbidity (complication before the diagnosis of cervical cancer) very related quality of life ($R^2 = 0.330$, $P = <0.05$). The more the number comorbidity held progressively poor patient quality of life possessed. Because comorbidity greatly influence the health status of patients and the provision of treatment to be given.

e. Self-esteem

The study result reported by Li et al. (2015) expressed self-esteem showed significant results which is 12% of the variance of quality of life, where those who have the self-esteem high have quality of life better. Self-esteem have the central role in managing stress and prevent stress of cancer diagnosis. Self-esteem can be set by using the personal characteristics of the positive and negative influences. Which are similar to the study result reported Kobayashi et al. (2009), cervical cancer patients who have self-esteem high quality of life better than patients who have self-esteem low (social/ family: $P = 0.023$; emotional: $P = 0.001$ and total quality of life: $P = 0.007$).

f. Age

The study result reported by Li et al. (2015) states have a significant predictor of age, 16% of the variance of quality of life, in which older people have a poorer quality of life and a younger age have a better quality of life. Age affects the female perspective in mind, people who are older and still holds the traditional culture considers that cervical cancer is a kind of punishment from God. The study result reported by Zhou et al. (2016), age related quality of life in patients with cervical cancer ($P = <0.05$). The study result reported by Rahman et al. (2017) also stated age related quality of life in patients with cervical cancer. In this study of patients who had an older age have a poor quality of life than patients who had a younger age.

g. Education

The study result reported by Rahman et al. (2017), education related quality of life in patients with cervical cancer ($P = <0.05$). The higher education patient have, the better the quality of life it has. The study result reported by Osann et al. (2014) there is a relationship between low education and poor quality of life in patients with cervical cancer. In this study patients with low education had a poor quality of life than patients who are highly educated.

h. Health Insurance

The study result reported by Zhou et al. (2016), health insurance related to quality of life ($P = <0.05$), health insurance help ease the patient's further treatment, patients who do not have health insurance must pay for their own medical expenses. This can get them to stop doing further treatment when they need it or they will do the treatment after being diagnosed with cancer at earlier stages is higher because there is no cost to do a screening and early detection for early diagnosis of cervical cancer. This causes the quality of their lives for the worse.

i. Economic status or Household Income

The study result reported by Huang et al. (2017), economic status (household income) relate to quality of life in patients with cervical cancer ($p <0.05$), and they have an income of US \$ 1,000 - US \$ 2,000 or > US \$ 2,000 have a better quality of life than their monthly income <\$ 1,000. Which are similar to the study result reported by Ding et al. (2013), there is a relationship between the income declared by the quality of life of patients with cervical cancer, a low income make patients have a greater financial burden compared which have a high income.

j. Social support

The study result reported by Osann et al. (2014) expressed significantly low social support associated with poor quality of life ($P = 0.004$). Which are similar to the study result reported Li et al. (2015) expressed social support (emotional support-information, tangible support, affection, and an active social interaction) showed significant results, 4% of the variance of the quality of life, with a strong social support associated with a better quality of life. Besides social support greatly affect self-esteem and assist individuals in adjustment changes.

k. Family support

The study result reported by Ding et al. (2013) expressed support for the family related quality of life with an average satisfaction with family relationships have a value of -0.21 koefisein highest standards in all 3 treatment (6 months after diagnosis). Family ties are very important, patients who received the love and support of family is expected to issue his emotions during treatment. The more family support is given, the better quality of life patient is have.

4. CONCLUSION

The factors associated with cervical cancer are patients who received only surgery, early stage of cervical cancer, long term treatment, less comorbidity, higher self-esteem, younger age, higher education, having health insurance, higher household income, good social support and good family support. Recommendation: It is expected that future researchers who are interested in conducting a systematic literature review to continue reviewing articles related to the type of treatment, stage of cervical cancer, duration/time of treatment, comorbidity, self-esteem, age, education, health insurance, economic status, support social and family support related to quality of life in patients with cervical cancer.

REFERENCES

- [1] Thapa N, Maharjan M, Xiong Y, Jiang D, & Nguyen, T. Impact of cervical cancer on quality of life of women in Hubei, China. *Scientific Reports*. 2018 p2–10.
- [2] Ashing-giwa KT, & Lim J. Health-related quality of life outcomes among cervical cancer survivors : Examining ethnic and linguistic differences. *Cancer Epidemiology*. 2011 p 194–201.
- [3] Endarti D, Riewpaiboon A, Thavorncharoensap M, Hutubessy R., & Kristina SA. Evaluation of Health-Related Quality of Life among Patients with Cervical Cancer in Indonesia. *Asian Pacific Journal of Cancer Prevention*. 2015 p3345–3350.
- [4] Pasek M, Suchocka L, & Urbański K. Quality of life in cervical cancer patients treated with radiation therapy. *Journal of Clinical Nursing*. 2013 p 690–697.
- [5] Zeng YC, Ching SSY, & Loke AY. Quality of life measurement in women with cervical cancer : implications for Chinese cervical cancer survivors. 2010 p 1–9.
- [6] Li CC, Chen ML, Chang TC, Chou HH, & Chen MY. Sosial support buffers the effect of self-esteem on quality of life of early-stage cervical cancer survivors in Taiwan. *European Journal of Oncology Nursing*. 2015 p 486–494.
- [7] Greenwald HP, McCorkle R, Baumgartner K, Gotay C, & Neale AV. Quality of life and disparities among long-term cervical cancer survivors. *Journal of Cancer Survivorship*. 2014 p 419–426.
- [8] Torkzahrani S, Rastegari L, Khodakarami N, Akbarzadeh-Baghian A, & Alizadeh K. Quality of Life and its Related Faktors Among Iranian Cervical Cancer Survivors. *Iranian Red Crescent Medical Journal*. 2013 p 320–323.
- [9] Osann K, Hsieh S, Nelson EL, Monk BJ, Chase D, Cella D, & Wenzel L. Factors associated with poor quality of life among cervical cancer survivors: Implications for clinical care and clinical trials. *Gynecologic Oncology*. 2014 p 266–272.
- [10] Huang HY, Tsai WC, Chou WY, Hung YC, Liu LC, Huang KF, ... Kung PT. Quality of life of breast and cervical cancer survivors. *BMC Women's Health*. 2017 p 1–12.
- [11] Zhou W, Yang X, Dai Y, Wu Q, He G, & Yin G. Survey of cervical cancer survivors regarding

- quality of life and sexual function. *Asian Pacific Journal of Cancer Prevention*. 2016 p 938–944.
- [12] Ding Y, Hu Y, & Hallberg IR. Health-related quality of life and associated factors in Chinese women with cervical cancer: A 9-month follow-up. *Cancer Nursing*. 2013 p 18-26.
- [13] Kobayashi M, Ohno T, Noguchi W, Matsuda A, Matsushima E, Kato S, & Tsujii H. Psychological distress and quality of life in cervical cancer survivors after radiotherapy do treatment modalities, disease stage, and self-esteem influence outcomes? *International Journal of Gynecological Cancer*. 2009 p 1264–1268.
- [14] Rahman Z, Singh U, Qureshi S, Nisha, Srivastav K, & Nishchal A. Assessment of Quality of Life in Treated Patients of Cancer Cervix. *Journal of Mid-Life Health*. 2017 p 183–188.
- [15] Gao C & Nie S. Health behaviors and quality of life in Chinese survivors of cervical cancer: a retrospective study. *OncoTargets and Therapy*. 2014 p 627.