



## Supportive care needs and quality of life of patients with gynecological cancer undergoing therapy

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### KEYWORDS

Supportive care needs;  
Quality of life;  
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### Abstract

**Objective:** To identify the relationship of unmet supportive care needs with quality of life of patients with gynecological cancer undergoing therapy.

**Method:** This study used a cross-sectional design. A total of 153 patients with gynecological cancer undergoing therapy were recruited using consecutive sampling methods. The participants completed the questionnaire of Supportive Care Needs Survey to identify their supportive care needs, EORTC-QLQ 30 to assess their general quality of life, and EORTC-QLQ-CX 24 or - OV 28 to determine cancer-specific quality of life in cervical cancer and ovarian cancer, respectively.

**Results:** Most of the participants (96.1%) reported their unmet needs of supportive care predominantly in the physical domain (80.4%). Unmet supportive care needs were found to be statistically significantly related to quality of life in the global health, functional, and symptom domains (p value 1 = 0.003, p value 2 = <0.001, and p value 3 = 0.001; r1 = -0.235, r2 = 0.306, and r3 = 0.268, respectively).

**Conclusions:** Patients with gynecological cancer needs various supportive care during treatment. These supportive care needs should be identified early at the time of diagnosis and continued throughout the disease and treatment trajectory to the survivorship point. Otherwise, unmet supportive care needs may lead to a low quality of life.

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## Introduction

Gynecological cancer remains one of the most prevalent cancers in women. According to the data released by Globocan in 2012, cervical cancer and ovarian cancer are the two gynecological cancers with the highest occurrence in Indonesia. The incidence rates of cervical cancer and ovarian cancer are 17.3 and 8.4, respectively, among 100,000 women per year<sup>1</sup>.

The effects of cancer pathology and its treatments are so poignant and multidimensional that supportive care is highly needed. For example, impaired physical function is usually associated with symptoms of distress, both of which may bring issues on daily activities and eventually result in unmet supportive care needs<sup>2</sup>. This seemingly vicious cycle should be anticipated by the early identification of supportive care needs in cancer patients, so that the quality of life (QOL) of cancer patients would be improved.

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Supportive care needs refer to the management of cancer symptoms and side effects, empowering of patients' adaptability and coping, optimization of understanding and information on decision making, and minimizing of body deficiencies<sup>3</sup>. Supportive care needs are broad in dimension, ranging from physical to sexual<sup>4</sup>.

QOL is an important goal in the treatment of cancer. Concerns about the physical, psychological, body image disturbance, and symptoms that can cause distress should be anticipated to improve the QOL of cancer patients. A previous study in Indonesia found that the QOL of cancer patients decreased after chemotherapy<sup>5</sup>. Improving the QOL of cancer patients during treatment improves their adherence to cancer care and treatment and strengthens their ability to overcome cancer-related symptoms or complaints<sup>6</sup>.

To reach the QOL at its most favorable level, strong supportive care service is the key<sup>2,6</sup>. Quality nursing care should meet this aim not only to address the accompanying symptoms of cancer and its treatments but also to increase patient satisfaction.

The identification of supportive care support for cancer patients undergoing chemotherapy remains an uncommon practice in Indonesia. Supportive care service mostly addresses cancer survivors and overlooks those currently suffering from cancer<sup>7,8</sup>. To encourage action in providing supportive care for gynecological cancer patients during therapy, more solid evidence is needed to examine how supportive care needs relates to the QOL of gynecological cancer patients undergoing therapy, thus explaining the objective of this study. In this article, we present a part of a large study with emphasis on the association between supportive care needs and QOL.

## Method

This work was a cross-sectional correlation study. The sample comprised 153 patients with cervical cancer and ovarian cancer undergoing treatment at two central hospitals in Jakarta, Indonesia, from May to June 2016. The respondents were selected through the consecutive sampling method. The number of the sample was calculated using the cross-sectional sample size formula<sup>9</sup>, with the standard deviation taken from a prior relevant study<sup>10</sup>.

We used Supportive Care Needs Survey (SCNS-SF34) to measure the need for supportive services. This questionnaire consists of 34 question items under five domains: physical, psychological, supportive care, health system and information, and sexuality<sup>11</sup>. This tool had a validity score of 0.302-0.792 and a reliability score of 0.933. The QOL was measured using the European Organization of Research and Treatment of Cancer Quality of Life Q-C30 (EORTC QLQ-30), Quality of Life Questionnaire Module Cervical Cancer (EORTC QLQ-CX 24), and Quality of Life Questionnaire ovary Cancer Module (EORTC QLQ-OV28). These instruments underwent forward translation from English to Bahasa Indonesia by an academic language center and an expert panel review. All questionnaires were piloted for validity and reliability testing among 30 respondents in a different setting.

Ethical approval was granted by the Institutional Review Board of Faculty of Nursing, Universitas Indonesia, and Dharmais Cancer Hospital. We adhered to ethical principles, in-

cluding the right to self-determination, anonymity and confidentiality, and protection from discomfort and harm.

## Results

The demographic characteristics of the respondents are presented in Table 1. The table shows that most respondents were 55 years and below, worked as housewives, and were of a low socioeconomic status, as shown in their family income rate. More than half of the respondents were diagnosed with stages I and II cervical cancer, with less than a year of cancer treatment.

The unmet supportive care needs of the respondents are summarized in Table 2. The highest unmet need was identified as the physical domain (80.4%) and the lowest was sexuality.

Table 3 presents the bivariate analysis that determines the relationship between the need for supportive services and the QOL of gynecological cancer patients undergoing therapy.

**Table 1** Characteristics of the respondents (n = 153)

Variable	n (%)
<b>Age</b>	
≤ 55 years	118 (77.1)
> 55 years	35 (22.9)
<b>Education</b>	
Basic education (elementary, junior high school)	108 (70.9)
Higher education (senior high school, college)	45 (29.1)
<b>Occupation</b>	
Housewife	126 (82.4)
Employee	27 (17.6)
<b>Income</b>	
< minimum family income rate	93 (60.8)
≥ minimum family income rate	60 (39.2)
<b>Cycle of chemotherapy</b>	
1-weekly	52 (40.6)
3-weekly	76 (59.4)
<b>Cancer type</b>	
Cervical cancer	99 (64.7)
Ovarian cancer	54 (35.3)
<b>Cancer stage</b>	
Early stage (stage I and II)	104 (68)
End-stage (stage III and IV)	49 (32)
<b>Time of therapy</b>	
≤ 1 year	141 (92.2)
> 1 year	12 (7.8)
<b>Therapy type</b>	
Single	95 (62.1)
Combination	58 (37.9)

Table 2 Unmet supportive care needs (n = 153)	
Variable	n (%)
<i>Supportive care needs</i>	
No need	6 (3.9)
Unmet need	147 (96.1)
<i>Physical and daily living</i>	
No need	30 (19.6)
Unmet need	123 (80.4)
<i>Psychological</i>	
No need	43 (28.1)
Unmet need	110 (71.9)
<i>Patient care and support</i>	
No need	39 (25.5)
Unmet need	114 (74.5)
<i>Health system and information</i>	
No need	45 (29.4)
Unmet need	108 (70.6)
<i>Sexuality</i>	
No need	99 (64.7)
Unmet need	54 (35.3)

## Discussion

The results of this study indicate a relationship between unmet supportive care needs and the global QOL in the domains of global health, functional, and symptoms in patients with gynecological cancer undergoing chemotherapy. Conversely, no significant association was found when the QOL was measured specifically against cervical cancer and ovarian cancer QOL. A consistent result was reported by a previous study assessing a similar hypothesis in a different cancer population<sup>12</sup>. The present study affirms the previous finding that patients with more unmet supportive care needs are more likely to have lower QOL.

The QOL of cervical cancer patients is affected by general health status and good relationships between the patients and healthcare professionals<sup>13</sup>. Cervical cancer patients receiving chemotherapy may experience a number of side effects, such as pain, fatigue, nausea, vomiting, and poor appetite, and they affect the QOL of these patients<sup>14</sup>. Poor management of the treatment's side effects and inadequate self-care negatively affect the QOL of patients<sup>6,15</sup>. Increasing the QOL of cancer patients during therapy increases patient compliance with the treatment and contributes to their self-efficacy<sup>6</sup>.

Similar to patients with cervical cancer, ovarian cancer patients also struggle with their interrelated physical and

Table 3 Relationship between the need for supportive services and quality of life (n = 153)		
Variable	Analysis	
	Mean (SD)	p value (correlation coefficient)
<b>Global quality of life</b>		
<i>General health status</i>	67.65 (19.02)	0.003 (-0.235)
Functional	73.89 (14.99)	< 0.001* (0.306)
Physical function	63.83 (21.93)	
Function role	59.91 (24.22)	
Emotional function	83.60 (15.86)	
Cognitive function	88.34 (18.54)	
Social function	76.47 (20.73)	
Symptom	28.89 (15.06)	< 0.001* (0.268)
Fatigue	44.59 (19.41)	
Nausea and vomiting	23.31 (23.90)	
Pain	39.32 (25.84)	
Difficulty in breathing	17.43 (24.80)	
Insomnia	46.62 (37.33)	
Loss of appetite	43.36 (29.14)	
Constipation	21.13 (36.42)	
Diarrhea	71.24 (23.89)	
Financial difficulties	16.99 (21.67)	
<i>Quality of life: cervical cancer</i>		
Functional	79.50 (14.15)	0.162 (-0.142)
Self-image	68.33 (41.69)	
Sexual activity	66.67 (27.21)	
Sexual pleasure	50.00 (19.24)	
Sexual function	93.75 (4.16)	

(Continued)

**Table 3** Relationship between the need for supportive services and quality of life (n = 153) (cont.)

Variable	Analysis	
	Mean (SD)	p value (correlation coefficient)
Symptom	34.55 (10.44)	0.669 (0.043)
Experienced symptoms	36.26 (7.42)	
Lymphedema	8.33 (16.67)	
Peripheral neuropathy	58.33 (41.94)	
Menopause symptoms	23.56 (27.46)	
Sexual anxiety	75.00 (16.67)	
<i>Quality of life: ovarian cancer</i>		
Functional	79.69 (10.25)	0.895 (−0.018)
Self-image	79.32 (17.11)	
Sexuality	93.82 (17.22)	
Behavior to treatment	69.75 (16.64)	
Symptom	27.29 (9.7)	0.587 (0.076)
Digestive symptoms	21.87 (11.46)	
Peripheral neuropathy	36.62 (22.59)	
Menopause symptoms	19.44 (15.77)	
Other chemotherapy effects	25.18 (13.37)	
Hair loss	44.44 (28.22)	

SD, standard deviation.

\*p value &lt; 0.05.

emotional changes, such as anxiety or depression, which may deteriorate their QOL. Simultaneous interactions worsen the existing symptoms and lead to other symptoms<sup>16</sup>.

In this study, unmet supportive care needs in the physical domain were found to be strongly related to the QOL of the patients. This finding is consistent with that of Effendy et al<sup>7</sup>, who found that physical problems constituted the most dominant unmet need in Indonesian patients with advanced cancer. An earlier study among Chinese patients also showed a similar result<sup>17</sup>. The physical symptoms commonly experienced by cancer patients undergoing therapy include decreased appetite, change in the taste of food, hair loss, nausea, vomiting, and fatigue<sup>18</sup>. Patients need support to cope with these physical symptoms to improve their condition and QOL.

Psychological health status also contributes to the QOL of patients undergoing treatment for cervical cancer<sup>19</sup>. In their study on supportive care needs, psychosocial status, and QOL of survivors of gynecological cancers, Hodgkinson et al. found that psychological distress is a predictor of unmet supportive care needs and low QOL<sup>20</sup>. Therefore, cancer patients undergoing therapy need emotional support to cope with their anxiety, sadness, and fear during the process of diagnosis and treatment<sup>21</sup>. Patients need reassurance and motivation to remain optimistic throughout their cancer experience<sup>18</sup>.

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## Conflicts of interest

None declared.

## References

1. Ferlay J, Steliarova-Foucher E, Lortet-Tieulent J, Rosso S, Coebergh JWW, Comber H, et al. Cancer incidence and mortality patterns in Europe: Estimates for 40 countries in 2012. *Eur J Cancer*. 2013;49:1374-403.
2. Liao MN, Chen SC, Chen SC, Lin YC, Hsu YH, Hung HC, et al. Changes and predictors of unmet supportive care needs in Taiwanese women with newly diagnosed breast cancer. *Oncol Nurs Forum*. 2012;39:E380-9.
3. Maguire R, Kotronoulas G, Simpson M, Paterson C. A systematic review of the supportive care needs of women living with and beyond cervical cancer. *Gynecol Oncol*. 2015;136:478-90.
4. Minstrell M, Winzenberg T, Rankin N, Hughes C, Walker J. Supportive care of rural women with breast cancer in Tasmania, Australia: changing needs over time. *Psychooncology*. 2008;17:58-65.
5. Perwitasari DA, Atthobari J, Dwiprahasto I, Hakimi M, Gelderblom H, Putter H, et al. Translation and validation of EORTC QLQ-C30 into Indonesian version for cancer patients in Indonesia. *Jpn J Clin Oncol*. 2011;41:519-29.
6. Bayram Z, Durna Z, Akin S. Quality of life during chemotherapy and satisfaction with nursing care in Turkish breast cancer patients. *Eur J Cancer Care (Engl)*. 2014;23:675-84.
7. Effendy C, Vissers K, Osse BH, Tejawinata S, Vernooij-Dassen M, Engels Y. Comparison of problems and unmet needs of patients with advanced cancer in a European country and an Asian country. *Pain Pract*. 2015;15:433-40.

8. Effendy C. The quality of palliative care for patients with cancer in Indonesia. Nijmegen: Institutes of the Radboud University Medical Center; 2015.
9. Dahlan S. Besar sampel dan cara pengambilan sampel dalam penelitian kedokteran dan kesehatan [Sample size and sampling method in medical and health studies]. Jakarta: Salemba Medika; 2009.
10. Amatya B, Khan F, Ng L, Galea M, Amatya B, Khan F, et al. Supportive Care Needs following Cancer Treatment: A Comparison of Breast and Brain Cancer in an Australian Cohort. *ISRN Rehabil*. 2014;2014:1-10. Available at: <http://www.hindawi.com/journals/isrn/2014/945472/>.
11. Bonevski B, Sanson-Fisher R, Girgis A, Burton L, Cook P, Boyes A, et al. Evaluation of an instrument to assess the needs of patients with cancer. *Cancer*. 2000;88:217-25.
12. Smith A, King M, Butow P, Lockett T, Grimison P, Toner G, et al. The prevalence and correlates of supportive care needs in testicular cancer survivors: a cross-sectional study. *Psychooncology*. 2013;22:2557-64.
13. Ashing Giwa KT, Lim JW, Tang J. Surviving cervical cancer: does health-related quality of life influence survival? *Gynecol Oncol*. 2010;118:35-42.
14. Du Toit GC, Kidd M. Prospective Quality of Life Study of South African Women Undergoing Treatment for Advanced-stage Cervical Cancer. *Clin Ther*. 2015;37:2324-31.
15. Cramarossa G, Chow E, Zhang L, Bedard G, Zeng L, Sahgal A, et al. Predictive factors for overall quality of life in patients with advanced cancer. *Support Care Cancer*. 2013;21:1709-16.
16. Hwang KH, Cho OH, Yoo YS. Symptom clusters of ovarian cancer patients undergoing chemotherapy, and their emotional status and quality of life. *Eur J Oncol Nurs*. 2016;21:215-22.
17. So WK, Leung DY, Ho SS, Lai ET, Sit JW, Chan CW. Associations between social support, prevalent symptoms and health-related quality of life in Chinese women undergoing treatment for breast cancer: a cross-sectional study using structural equation modelling. *Eur J Oncol Nurs*. 2013;17:442-8.
18. Beesley VL, Eakin EG, Steginga S, Aitken J, Dunn J, Battistutta D. Unmet needs of gynaecological cancer survivors: implications for developing community support services. *Psychooncology*. 2008;17:392-400.
19. Osann K, Hsieh S, Nelson EL, Monk BJ, Chase D, Cella D, et al. Factors associated with poor quality of life among cervical cancer survivors: Implications for clinical care and clinical trials. *Gynecol Oncol*. 2014;135:266-72.
20. Hodgkinson K, Butow P, Fuchs A, Hunt GE, Stenlake A, Hobbs KM, et al. Long-term survival from gynecologic cancer: Psychosocial outcomes, supportive care needs and positive outcomes. *Gynecol Oncol*. 2007;104:381-9.
21. Butow PN, Price MA, Bell ML, Webb PM, Defazio A, Friedlander M. Caring for women with ovarian cancer in the last year of life: A longitudinal study of caregiver quality of life, distress and unmet needs. *Gynecol Oncol*. 2014;132:690-7.