Objective: Breast cancer survivors are increasing in number among survivors of all types of cancer, and survivors returning to work are extremely important. The development of outpatient chemotherapy has increased the working population of patients undergoing cancer therapy. Consequently, a significant number of breast cancer survivors experience physical, psychological, and social problems. This study aimed to clarify differences in concerns among patients with breast cancer receiving outpatient chemotherapy according to their employment status.

Methods: Twenty-eight patients with breast cancer undergoing outpatient chemotherapy were recruited. A questionnaire was used to survey the attributes, employment status, and levels of concern in these patients based on the Cancer-chemotherapy Concerns Rating Scale (CCRS). Data from three groups (employed full time, employed part-time, and unemployed) were analyzed using multiple comparison tests.

Results: The patients' mean age was (55.1 ± 9.9) years. According to the CCRS findings, the following three parameters differed between the three groups: scores for the items “I always think about my disease” (employed vs. unemployed, \( P = 0.005 \)) and “I can’t work (housework/schoolwork)” (employed full time vs. part time, \( P = 0.045 \)), and scores for the “self-existence” subscale (employed vs. unemployed, \( P = 0.024 \)).

Conclusions: This study revealed the characteristics of concerns in patients with breast cancer according to their employment status. Being able to continue working is considered to enhance the social health of these patients. Predicting concerns in employed patients will help gain perspective in early nursing interventions.

Key words: Breast cancer, concern, outpatient chemotherapy, work
Introduction

Over the past three decades, significant improvements in the management of cancer have reduced cancer-related mortality rates and thereby increased the number of cancer survivors. The development of outpatient chemotherapy has increased the working population of patients undergoing cancer therapy. However, a significant number of cancer survivors experience physical, psychological, and social problems. Physical suffering and psychological distress increase because of the side effects of chemotherapy. In addition to the obvious financial benefits, employment is associated with physical and psychological well-being, since patients are able to retain their identity and self-respect. Breast cancer treatment varies according to the site and stage of disease and may include one or more of the following interventions: surgery, radiation therapy, chemotherapy/hormonal therapy, and biotherapy/targeted agents. Therapy may have a significant impact on an individual’s health, and the associated symptoms may be physical, psychological, or neurological. In general, cancer and treatment-related symptoms, including treatment side effects, are major stressors for patients. Of these, concern and depression are the most common psychological symptoms. Some patients may be required to make adjustments in their job roles because of physical, cognitive, or psychological problems as a result of cancer or cancer treatment.

Statement of the problem

For patients with cancer, there are concerns regarding disease recurrence, sickness-associated changes, disease progression, social attitudes, financial aspects, future expenses, and medical treatments. Patients receiving chemotherapy are more anxious than those undergoing radiotherapy and experience a lower quality of life (QOL). It is not easy for nurses and oncologists to understand the psychological state of patients undergoing outpatient chemotherapy. Thus, it is especially important to understand patients’ concerns so that these can be addressed effectively.

Problem justification

Only a few studies have assessed the relationship between the psychological concerns experienced by patients with cancer and employment status. In addition, it is not clear whether there are any physiological differences between patients who work and patients who only recuperate from regular outpatient chemotherapy or whether patients who work find greater meaning in life by continuing their social life, reducing their economic problems, and having a better QOL. Moreover, the number of people suffering from breast cancer in Japan is increasing steadily. Employment is related to QOL in women with breast cancer. Therefore, it is important to identify distinctions between these patient groups to provide an improved support system.

Purpose of the study

This study aimed to determine the differences in the levels of concern among patients with breast cancer receiving outpatient chemotherapy according to their employment status.

Methods

Research setting and population

This was a cross-sectional study using self-administered questionnaires. Potential participants were recruited from the Outpatient Chemotherapy Unit at Kyoto Prefectural University Hospital. The inclusion criteria were patients who (1) were diagnosed with breast cancer, (2) aged 31–69 years (working age), (3) had stage I to III breast cancer, (4) had an Eastern Cooperative Oncology Group (ECOG) performance status (PS) of 0 or 1, and (5) had received an explanation of the study and agreed to participate.

Participant recruitment process

The suitability of each patient for participating in this study was consulted to an oncologist (K.S.). After providing an explanation of the study’s objective, we obtained approval and consent from each patient before participation.

Research instrument

The demographic data included age, sex, caregivers, employment status at the time of diagnosis, and current employment status. Information regarding cancer stage and ECOG PS was obtained from medical records. We used the Cancer-chemotherapy Concerns Rating Scale (CCRS) for medical management-related concerns in patients undergoing outpatient chemotherapy. The CCRS consists of a 15-item questionnaire with four subscales: reorganization of daily life, social and economic concerns, self-existence, and disease progress. These items are rated on a four-point Likert-type scale. Patients were expected to answer each item using the following ratings: 1 = not at all, 2 = a little bit, 3 = quite a bit, and 4 = very much. We calculated the participants’ total scores for each item. Cronbach’s alpha coefficient was 0.88, and higher scores indicated greater concern.

Data collection procedure

From September 2015 to August 2017, the researchers conducted a survey of the participants who provided consent.
**Ethical approval**

Ethical approval for this study was received from the Institutional Review Board of Kyoto Prefectural University of Medicine (Approval No.: ERB-E-82-5). These patients were informed of the research plan and were provided assurances that participation was voluntary and that their private information would remain confidential during and after the project. All patients provided written informed consent.

**Data management and analysis**

Based on employment status, the participants were divided into three groups: employed full time, employed part-time, and unemployed. Statistical comparisons of each CCRS subscale were performed using the Kruskal–Wallis test to analyze the differences in scores for each employment status. A value of $P < 0.05$ was considered to indicate statistical significance. We used the Statistical Package for the Social Sciences version 22.0 (IBM Institute Inc., Tokyo, Japan) for all statistical calculations.

**Results**

Twenty-eight patients with breast cancer undergoing outpatient chemotherapy were recruited. The clinical characteristics of the patients were grouped according to employment status and are shown in Table 1. The participants were all female, with an overall mean age of $(55.1 \pm 1.8)$ years. Half of the participants were employed (50%). Twenty-one patients (75.0%) were married and seven (25.0%) were single. Only five patients (17.9%) were homemakers, whereas 23 cases (82.1%) were not. The caregivers of 15 patients (53.6%) were their respective partners; the remaining caregivers were either children or parents.

A questionnaire was administered to survey the attributes, employment status, and level of concerns in these patients based on the CCRS. Data from the three groups were analyzed using multiple comparison tests. Statistical comparisons of each CCRS subscale were performed using the Kruskal–Wallis test to analyze differences in scores for each employment status.

According to the CCRS findings, the following three parameters differed between the three groups [Table 2]: “I always think about my disease” (employed vs. unemployed, $P = 0.005$), “I can't work (housework/schoolwork)” (employed full time vs. part time, $P = 0.045$), and the “self-existence” subscale (employed vs. unemployed, $P = 0.024$).

**Discussion**

When it comes to cancer diagnosis and treatment in patients who are employed full time, there are several factors

| Table 1: Clinical characteristics of the participants grouped by employment status, n (%) |
|-------------------------------------------------|-------------------|-----------------|-----------------|-------------------|
| All subjects (n=28)                             | Full time employment (n=14) | Part time employment (n=5) | Unemployed (n=9) | $P$          |
| Age (years, Mean±SD)                            | 55.1±1.8           | 50.64±2.1       | 57.0±4.2        | 60.8±3.5 |
| Gender                                         |                   |                 |                 |             |
| Male                                           | 0.0 (0.0)         | 0.0 (0.0)       | 0.0 (0.0)       | 0.0 (0.0)  |
| Female                                         | 28.0 (85.3)       | 14.0 (100.0)    | 5.0 (100.0)     | 9.0 (100.0) |
| Stage                                          |                   |                 |                 |             |
| I                                              | 5.0 (18.0)        | 2.0 (13.0)      | 2.0 (25.0)      | 1.0 (20.0) |
| II                                             | 15.0 (53.0)       | 10.0 (67.0)     | 3.0 (37.0)      | 2.0 (40.0) |
| III                                            | 8.0 (29.0)        | 3.0 (20.0)      | 3.0 (37.0)      | 2.0 (40.0) |
| IV                                             | 0.0 (0.0)         | 0.0 (0.0)       | 0.0 (0.0)       | 0.0 (0.0)  |
| Performance status                             |                   |                 |                 |             |
| 0                                              | 13.0 (46.4)       | 7.0 (50.0)      | 3.0 (60.0)      | 3.0 (33.3) |
| 1                                              | 15.0 (53.6)       | 7.0 (50.0)      | 2.0 (40.0)      | 6.0 (66.7) |
| Martial status                                 |                   |                 |                 |             |
| Married                                        | 21.0 (75.0)       | 10.0 (71.4)     | 3.0 (60.0)      | 7.0 (77.8) |
| Single                                         | 7.0 (25.0)        | 4.0 (28.6)      | 2.0 (40.0)      | 2.0 (22.2) |
| Homemakers                                     |                   |                 |                 |             |
| Yes                                            | 5.0 (17.9)        | 9.0 (50.0)      | 1.0 (20.0)      | 1.0 (11.1) |
| No                                             | 23.0 (82.1)       | 9.0 (50.0)      | 4.0 (80.0)      | 8.0 (88.9) |
| Caregivers                                     |                   |                 |                 |             |
| Partner                                        | 15.0 (53.6)       | 10.0 (71.4)     | 3.0 (60.0)      | 3.0 (33.3) |
| Child                                          | 10.0 (35.7)       | 5.0 (35.7)      | 2.0 (40.0)      | 3.0 (33.3) |
| Parent                                         | 10.0 (35.7)       | 9.0 (64.3)      | 1.0 (20.0)      | 0.0 (0.0)  |
| Sibling                                        | 10.0 (35.7)       | 8.0 (57.1)      | 1.0 (20.0)      | 1.0 (11.1) |
| Office                                         | 5.0 (17.9)        | 4.0 (28.6)      | 0.0 (0.0)       | 0.0 (0.0)  |
| Others                                         | 9.0 (32.1)        | 5.0 (35.7)      | 2.0 (40.0)      | 2.0 (22.2) |
In general, working patients reported many stresses related to their work. Patients who were working felt that patients with cancer did not try to work when they were employed full-time vis-à-vis and those who were unemployed. However, some working patients with cancer lose self-confidence and experience difficulties in coping with symptoms.24,25

The number of women who are active in society is increasing. Many of these active women fulfill several roles, such as employee, wife, mother, and daughter. Furthermore, those diagnosed with cancer also play the role of patient. Even without a cancer diagnosis, fulfilling several roles are a very difficult task. Patients with breast cancer, however, juggle many roles while suffering from symptoms due to treatment, experience many stresses related to work, and remain active in society. In cases of breast cancer, for patients to live like themselves, it is necessary to support them in achieving the lifestyle they desire.

The type of concern most frequently raised by patients with cancer receiving outpatient chemotherapy was “disease progress.” Many patients did not talk to others about those concerns which led them to think about “self-existence” or “death.” The CCRS score was significantly higher among unemployed individuals compared to those who were employed. However, it is unclear whether there are any physiological differences between patients who are employed full-time vis-à-vis and those who are unemployed.

In our study, the scores for the “disease progress” subscale and the item “I always think about the disease” were highest in the employed group. Patients who were working felt responsible for their families and were anxious about their families’ and their own future. In general, patients with cancer always have a fear of relapse and metastasis, and patients in the employed group often regarded their disease and its treatment as being interwoven with their work. The scores for the item “I can’t work (housework/schoolwork)” were highest in the employed group. Horii et al.27 reported that patients with cancer did not try to work when they were

---

**Table 2: Cancer-chemotherapy Concerns Rating Scale (CCRS) in patients with breast cancer according to employment status, median (max-min) (n=28)**

| Item                                                                 | Full time employment (n=14) | Part time employment (n=5) | Unemployed (n=9) | P    |
|----------------------------------------------------------------------|----------------------------|---------------------------|-----------------|------|
| The 15 items of the Cancer-chemotherapy Concerns Rating Scale are divided into four subscales. The total score for each item was calculated |                            |                           |                 |      |
| Disease progress                                                     | 5.5 (3.0-8.0)               | 8.0 (6.0-10.0)            | 5.0 (3.0-8.0)   | 0.180|
| Reorganization of daily life                                         | 10.5 (6.0-18.0)             | 8.0 (6.0-14.0)            | 11.5 (6.0-16.0) | 0.385|
| Self-existence                                                       | 10.5 (9.0-12.0)             | 8.0 (8.0-10.0)            | 8.5 (6.0-11.0)  | 0.024*|
| Social and economy concerns                                         | 7.3 (3.0-11.0)              | 6.0 (3.0-9.0)             | 8.0 (3.0-9.0)   | 0.532|
| **Sub-item**                                                        |                            |                           |                 |      |
| Disease progress                                                     |                            |                           |                 |      |
| I always think about my disease                                      | 4.0 (3.0-4.0)*              | 3.0 (2.0-4.0)*            | 3.0 (2.0-3.0)*  | 0.007**|
| I have anxiety about recurrence and metastasis                       | 3.5 (3.0-4.0)               | 3.0 (3.0-4.0)             | 3.0 (2.0-4.0)   | 0.595|
| My will-power and physical strength are decreased                    | 3.0 (2.0-4.0)               | 3.0 (2.0-4.0)             | 3.0 (1.0-4.0)   | 0.242|
| Reorganization of daily life                                         |                            |                           |                 |      |
| I am not able to take care of myself                                 | 1.0 (1.0-3.0)               | 1.0 (1.0-1.0)             | 1.0 (1.0-3.0)   | 0.364|
| I cannot maintain the rhythm of my daily life                        | 2.0 (1.0-3.0)               | 1.0 (1.0-4.0)             | 1.0 (1.0-2.0)   | 0.478|
| I cannot work (housework/schoolwork)                                 | 3.0 (1.0-4.0)*              | 1.0 (1.0-2.0)*            | 2.0 (1.0-3.0)   | 0.049*|
| Self-existence                                                       |                            |                           |                 |      |
| I restrict my life                                                   | 2.5 (1.0-4.0)               | 1.0 (1.0-3.0)             | 3.0 (1.0-3.0)   | 0.250|
| I am restricted by my family’s worry                                 | 1.5 (1.0-4.0)               | 1.0 (1.0-4.0)             | 2.0 (1.0-3.0)   | 0.958|
| I feel alienated from society                                        | 1.0 (1.0-4.0)               | 1.0 (1.0-2.0)             | 1.0 (1.0-3.0)   | 0.560|
| I do not feel like myself                                            | 1.5 (1.0-4.0)               | 1.0 (1.0-2.0)             | 2.0 (1.0-3.0)   | 0.274|
| I want to rely on someone or something                               | 2.0 (1.0-3.0)               | 1.0 (1.0-3.0)             | 2.0 (1.0-3.0)   | 0.810|
| I lost a human relationship                                          | 1.0 (1.0-4.0)               | 1.0 (1.0-1.0)             | 1.0 (1.0-2.0)   | 0.413|
| Social and economy concerns                                         |                            |                           |                 |      |
| I worry about my family’s future                                     | 2.0 (1.0-4.0)               | 2.0 (1.0-3.0)             | 3.0 (1.0-4.0)   | 0.556|
| I worry about not being able to fulfill my duties                    | 2.5 (1.0-4.0)               | 1.0 (1.0-3.0)             | 3.0 (1.0-4.0)   | 0.206|
| I worry about my financial future                                    | 3.0 (1.0-4.0)               | 3.0 (1.0-3.0)             | 2.0 (1.0-4.0)   | 0.991|

*P<0.05; **P<0.01

---

...in managing symptoms associated with cancer...21 In addition, stresses related to work may negatively affect working patients with cancer, who have physical and psychological limitations. Working hours and occupational roles in patients with cancer may be reduced by psychological symptoms such as fear, concern, and depression.22 However, there is increasing evidence that working is beneficial for patients with cancer since most patients with cancer consider work an important aspect of reestablishing normal life.23 In general, working patients with cancer would benefit from the financial stability, self-identity, sense of normality, and emotional well-being associated with their work.4,5,22,24,25 However, some working patients with cancer lose self-confidence and experience difficulties in coping with symptoms.24,25

The number of women who are active in society is increasing. Many of these active women fulfill several roles, such as employee, wife, mother, and daughter. Furthermore, those diagnosed with cancer also play the role of patient. Even without a cancer diagnosis, fulfilling several roles are a very difficult task. Patients with breast cancer, however, juggle many roles while suffering from symptoms due to treatment, experience many stresses related to work, and remain active in society. In cases of breast cancer, for patients to live like themselves, it is necessary to support them in achieving the lifestyle they desire.

The type of concern most frequently raised by patients with cancer receiving outpatient chemotherapy was “disease progress.” Many patients did not talk to others about those concerns which led them to think about “self-existence” or “death.” The CCRS score was significantly higher among unemployed individuals compared to those who were employed. However, it is unclear whether there are any physiological differences between patients who are employed full-time vis-à-vis and those who are unemployed.

In our study, the scores for the “disease progress” subscale and the item “I always think about the disease” were highest in the employed group. Patients who were working felt responsible for their families and were anxious about their families’ and their own future. In general, patients with cancer always have a fear of relapse and metastasis, and patients in the employed group often regarded their disease and its treatment as being interwoven with their work. The scores for the item “I can’t work (housework/schoolwork)” were highest in the employed group. Horii et al.27 reported that patients with cancer did not try to work when they were...
physically unable to and made an effort to balance work and housework. They realized that it would be impossible to work with a decline in willpower and physical strength or fatigue. Working patients may spend days feeling frustrated at being unable to work as expected. The scores for the item “self-existence” were highest in the employed group. Patients who are working may feel uneasy regarding their future life and constantly worry about their families. According to the CCRS results, the employed group was “always thinking about the disease,” felt that they “can’t work (housework/schoolwork),” and were anxious about “self-existence.” Our study indicates the importance of assessing the mental status of patients with cancer throughout the management of the disease.

**Recommendations**

Additional studies are required to examine the time of onset of symptoms and their pattern over the course of cancer treatment. The ability to predict concerns strongly experienced by employed patients will help provide perspective in early nursing interventions. It is important to understand patients’ employment circumstances, including current employment status, work details, and workplace support systems, by contacting patients’ family members and colleagues. It is also important for patients to share information with their family, friends, and medical staff so that their fears and distress can be addressed and to ensure that they access necessary social services. Two-way information exchange, active listening, and informed consent may provide clear solutions to problems. Our results can also help nurses offer better supportive care to patients with cancer who are at risk of experiencing psychological symptoms. Knowledge of psychological status is important for medical staff to improve the QOL of patients with cancer. However, further research is required to identify patients who are at a growing risk of psychological distress. There may be benefits to functional outcomes and employees’ health by facilitating information flow between medical specialists and employers. Further research may develop guidelines to facilitate the feedback method to promote the psychological well-being of patients. This will guarantee a patient-centered approach in supporting the achievement of patients’ goals. This cross-sectional study provided information about the psychological symptoms of patients with cancer.

**Limitations**

The major limitation was that this study included a small number of patients within a single institution, which limited our ability to generalize our findings. However, this study offers some valuable knowledge and opinions regarding the levels of concern experienced by patients with cancer in different employment situations. Future research should involve larger numbers of patients and many social and economic factors. In addition, longitudinal studies are recommended to obtain information about the psychological symptoms experienced by patients with cancer over time.

**Conclusion**

This study revealed the characteristics of concerns in patients with breast cancer according to their employment status. Being able to continue working is considered to enhance the social health of these patients. Predicting serious concerns of employed patients and collecting the relevant information will help provide perspective in early nursing interventions.

**Financial support and sponsorship**

This work was partly supported by the Yasuda Medical Foundation.

**Conflicts of interest**

There are no conflicts of interest.

**References**

1. Hewitt M, Rowland JH, Yancik R. Cancer survivors in the United States: Age, health, and disability. J Gerontol A Biol Sci Med Sci 2003;58:82-91.
2. Lakdawalla DN, Sun EC, Jena AB, Reyes CM, Goldman DP, Philipson TJ, et al. An economic evaluation of the war on cancer. J Health Econ 2010;29:333-46.
3. Ganz PA, Coscarelli A, Fred C, Kahn B, Polinsky ML, Petersen L, et al. Breast cancer survivors: Psychosocial concerns and quality of life. Breast Cancer Res Treat 1996;38:183-99.
4. Oshima A. Cancer survivors of working generation and psycho-social support Seishinka. Japanese Bulletin of Social Psychiatry 2002;23:276-82.
5. Amir Z, Brocky J. Cancer survivorship and employment: Epidemiology, Occup Med (Lond) 2009;59:373-7.
6. de Boer AG, Taskila T, Ojajärvi A, van Dijk FJ, Verbeek JH. Cancer survivors and unemployment: A meta-analysis and meta-regression. JAMA 2009;301:753-62.
7. Wells M, Williams B, Firnigl D, Lang H, Coyle J, Kroll T, et al. Supporting ‘work-related goals’ rather than ‘return to work’ after cancer? A systematic review and meta-synthesis of 25 qualitative studies. Psychooncology 2013;22:1208-19.
8. Stergiou-Kita M, Grigorovich A, Tseng V, Milosevic E, Hebert D, Phan S, et al. Qualitative meta-synthesis of survivors’ work experiences and the development of strategies to facilitate return to work. J Cancer Surviv 2014;8:657-70.
9. Short PF, Vasey JJ, Tunceli K. Employment pathways in a large cohort of adult cancer survivors. Cancer 2005;103:1292-301.
10. Jim HS, Andrykowski MA, Munster PN, Jacobsen PB. Physical symptoms/side effects during breast cancer treatment predict posttreatment distress. Ann Behav Med 2007;34:200-8.
11. Takahashi T, Hondo M, Nishimura K, Kitani A, Yamano T,
Yanagita H, et al. Evaluation of quality of life and psychological response in cancer patients treated with radiotherapy. Radial Med 2008;26:396-401.

12. Antoni MH, Lehman JM, Kilbourn KM, Boyers AE, Culver JL, Afferi SM, et al. Cognitive-behavioral stress management intervention decreases the prevalence of depression and enhances benefit finding among women under treatment for early-stage breast cancer. Health Psychol 2001;20:29-32.

13. Fukuda A, Yamada S, Miyawaki I, Yada M, Tabuchi Y. A study on difficulties for daily life in outpatients with cancer chemotherapy: Survey of the actual difficulties of daily life. Bull Kobe Univ Grad Sch Health Sci 2003;19:41-57.

14. So WK, Marsh G, Ling WM, Leung FY, Lo JC, Yeung M, et al. Anxiety, depression and quality of life among Chinese breast cancer patients during adjuvant therapy. Eur J Oncol Nurs 2010;14:17-22.

15. National Cancer Center. Center for Cancer Control and Information Service. Japan: National Cancer Center; 2018. Available from: https://www.ncc.go.jp/jp/cis/index.html. [Last retrieved on 2018 Jul 15].

16. Gangane N, Khairkar P, Hurtig AK, San Sebastián M. Quality of life determinants in breast cancer patients in central rural India. Asian Pac J Cancer Prev 2017;18:3325-32.

17. Kanda K, Ishida J, Ishida K, Horikoshi M, Ito S. Development of cancer-chemotherapy concerns rating scale and study of its reliability and validity. Jpn J Cancer Nurs 2007;21:3-13.

18. Kusaba Y, Hashizume K, Nakane K, Miyahara C, Tsuchiya A, Ashizawa K, et al. Concerns of cancer patients receiving outpatient chemotherapy and positive ways of supporting them. Health Sci Res 2013;24:19-25.

19. Hashizume K, Kusaba Y, Miyahara C, Nakane K, Tsuchiya A, Iida T, et al. Concerns of cancer patients receiving outpatient chemotherapy and positive aspects of treatment. Palliat Care Res 2013;8:232-9.

20. Kwon IG, Cho MS, Ham YH, Shin HY, Fujimoto K, Kikuchi S, et al. The validity and reliability of the Korean version of the cancer-chemotherapy concerns rating scale. Jpn J Clin Oncol 2016;46:260-3.

21. Park JH, Park EC, Park JH, Kim SG, Lee SY. Job loss and re-employment of cancer patients in Korean employees: A nationwide retrospective cohort study. J Clin Oncol 2008;26:1302-9.

22. Steiner JF, Cavender TA, Nowels CT, Beaty BL, Bradley CJ, Fairclough DL, et al. The impact of physical and psychosocial factors on work characteristics after cancer. Psychooncology 2008;17:138-47.

23. Macmillan Cancer Support. Working through Cancer. London: Macmillan Cancer Support; 2007. Available from: https://www.macmillan.org.uk/about-us/what-we-do/how-we-work/work-and-cancer. [Last retrieved on 2018 Jul 15].

24. Spelten ER, Sprangers MA, Verbeek JH. Factors reported to influence the return to work of cancer survivors: A literature review. Psychooncology 2002;11:124-31.

25. Main DS, Nowels CT, Cavender TA, Etschmaier M, Steiner JF. A qualitative study of work and work return in cancer survivors. Psychooncology 2005;14:992-1004.

26. Amir Z, Neary D, Luker K. Cancer survivors’ views of work 3 years post diagnosis: A UK perspective. Eur J Oncol Nurs 2008;12:190-7.

27. Horii N, Kobayashi M, Suzuki Y. Adjustment of cancer patients who were receiving outpatient chemotherapy to returning to work. Jpn J Occup Med Traumatol 2009;57:118-24.

28. Hausman A. Taking your medicine: Relational steps to improving patient compliance. Health Mark Q 2001;19:49-71.