

Return to Work Experience among Military Officers with Cancer

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Purpose: This study was done to describe the return to work experience of military officers with cancer. **Methods:** Individual in-depth interviews with 15 participants were conducted between September 2013 and April 2014. Participants were interviewed 1~4 times; interviews continued until the data became saturated. Data were analyzed using Strauss and Corbin's grounded theory. **Results:** The core category emerged as "living a new life after enduring difficulties". The return to work process consisted of four sequential phases: chaos, positive thought formation, behavior practices, and reformation. Action/interaction strategies used by military officers with cancer to resolve enduring difficulties were controlling emotions, accepting reality, prioritizing health, making efforts to improve relationships, and looking for future jobs. **Conclusion:** These results will promote understanding of military officers' return to work experience following cancer survival, and will be helpful in developing more effective nursing interventions through enhanced perspectives and insights of practitioners.

Key words: Cancer, Return to work, Qualitative research

INTRODUCTION

With the advancement of cancer treatment and early detection technologies, the number of cancer survivors is continually increasing. In 2011 in Korea, 220,000 patients were diagnosed with cancer[1], representing a two-fold increase from 110,000 diagnoses in 2001. The cancer survival rate from 2007 to 2011 was 66.3%, a 22.3% increase compared to the survival rate of 44% from 1996 to 2000[1]. This increase in cancer survival rate means that many cancer survivors will return to work during or after completing treatment[2].

A cancer survivor is a person who has survived after overcoming cancer with severe difficulty or threat of life. The term refers to all individuals who have been affected by cancer from initial diagnosis and for the remainder of their lives[3]. The increase in cancer survivors has been

similar for military members. After amendment of the Military Personnel Management Act in 2007, members of the military who were previously discharged after cancer treatment were able to continue service[4]. Considering the continually increasing cancer survival rate, the number of serving officers with cancer will continue to rise.

Career soldiers implement tasks in special environments that are different from those required of members of general organizations. The military profession requires a rigid life of strict discipline. Furthermore, frequently transferring shifts to remote areas and the frequent change of superior officers increase psychological stress. In addition, officers must always maintain readiness for duty and are constrained to living in certain areas[5]. Officers with cancer will return to work following initial treatment to begin their lives as cancer survivors. They implement tasks that are both physically and psychologically intense under special conditions,

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such as service, training, and operations. During this process, it is expected that the officers with cancer will endure many difficulties. Thus, it is necessary to comprehensively evaluate difficulties faced by officers during the return to work experience. Return to work is an important part in the recovery of cancer survivors[6,7]. It solves economic problems[2,8], promotes social relationships in the workplace, and facilitates recovery toward a normal life[8,9]. Therefore, the ability to continue working is an important issue for the individual, his/her family, and society in general[2]. However, many cancer survivors lose their regular source of income, their jobs, and even their social and psychological positions[10]. Furthermore, even though these cancer survivors return to the workplace, it has been reported that they suffer difficulties due to cancer-related symptoms such as lack of attention, fatigue, pain, and depression[11], negative attitudes toward cancer, and discrimination against cancer patients[12] in the return to work process. A study on public perceptions of cancer and cancer patients showed that 23.5% of respondents wanted to avoid working with cancer survivors, and 50.7% of respondents indicated that, if they were diagnosed with cancer, they would not tell their coworkers[13]. As such, the negative attitudes toward cancer influence people in their willingness to communicate their cancer diagnosis, which ultimately becomes a hindrance to cancer survivors' return to work.

International research on cancer survivors includes studies, mainly in the medical field, on factors that facilitate and hinder the return to work[6], the experience of working following cancer treatment[8,11], employment after cancer diagnosis[9], hospital-based work support interventions[14], and improvement of the perception of cancer[15]. However, studies thus far have been insufficient for informing nursing interventions. In other countries, researchers have studied the role of occupational health nurses in cancer survivors' return to work[7], and how enlisted women with breast cancer balance cancer treatment and military service simultaneously[16]. However, due to cultural and institutional differences in the perceptions or cancer treatment among career soldiers with cancer, the existing studies have limited applicability to the nursing of Korean career soldiers' return to work.

Only recently has research on cancer survivors' return to work in Korea begun to draw attention, and as domestic research is limited, most researchers have drawn comparisons with international research. Domestic studies have been mainly quantitative, and have focused on discrimination in the workplace[12], the negative perception of cancer[13], loss of employment and re-employment[17], and work-related difficulties[18]. Qualitative research remains insufficient, except for a

study that analyzed the return to work experiences among breast cancer survivors[19]. However, this study could not provide an understanding of survivors of other cancers. Few comprehensive studies have investigated the return to work experience among military officers with cancer. Such qualitative research could provide additional insights on cognitive and social factors as well as clinical processes[10].

The transition process of cancer survivors, in which they conclude their role as patients and begin a new life as cancer survivors, could be a vulnerable state of crisis that could influence health conditions[20]. Considering that the return to work is a process of recovery[6,7], nurses who are closest to the treatment trajectory of cancer survivors are in a unique position to provide support services with regard to vulnerable environments[16]. Therefore, it is important that nurses devote attention to cancer survivors return to work after completing initial treatments. To provide adequate nursing for officers with cancer returning to work, qualitative research on the return to work among officers with cancer is required to gain a comprehensive understanding of their surrounding situations and environments.

Therefore, the purposes of this study were to comprehensively evaluate the difficulties faced by officers with cancer returning to work, to explore how they solved the problems and adjusted to the environment using the grounded theory approach based on symbolic interactionism, and to develop substantive theory that can explain these issues.

METHODS

1. Study design

We conducted a qualitative study based on experiential data to shed light on the return to work experience among officers with cancer. Strauss and Corbin's[21] grounded theory approach for data collection and analysis was employed.

2. Setting and sample

Participants were 15 cancer survivors who returned to work after completing treatment. Participants had at least 10 years of military service at the time of their diagnoses. They were selected using the Military Personnel System to identify the discharge state and workplace of cancer survivors who returned to work after cancer treatment between 2008 and 2012. In Table 1 shows a summary of participants' demographic in-

Table 1. Participant Demographics

(N=15)

Pn	Age at Dx	Gender	Cancer	Time since Dx (months)	Time from Dx to RTW (months)	Education	Status	Stage	Treatment
1	40	M	Non-Hodgkin's lymphoma	64	6	College	NCO	4	C/D
2	37	M	Lung cancer	48	3	College	NCO	1	O/D
3	31	M	Gastric cancer	47	5	College	NCO	1	O
4	46	M	GIST	14	3	High school	NCO	2	O/D
5	37	M	Brain tumor	23	4	College	NCO	4	O/C/R/D
6	50	M	Liver cancer	33	5	College	WO	1	O
7	44	F	Breast cancer (metastasis)	44	0	Graduate	CO	1	O/R/H
8	30	F	Breast cancer	35	7	College	CO	3	O/C/R/H
9	40	F	Gastric cancer	25	3	Graduate	CO	1	O
10	41	M	Colon cancer	97	14	Graduate	CO	4	O/C/R
11	43	M	Gastric, colon (metastasis)	95	13	Graduate	CO	1	O/C
12	42	M	Gastric cancer	53	2	Graduate	CO	1	O
13	40	M	Rectal cancer	29	9	College	CO	3	O
14	50	M	Rectal cancer	16	11	College	CO	3	O/C
15	36	M	Colon cancer	6	6	College	CO	4	O/C/D

Pn=Participant number; M=Male; F=Female; GIST=Gastrointestinal stromal tumor; RTW=Return to work; NCO=Noncommissioned officer; WO=Warrant officer; CO=Commissioned officer; O=Operation; C=Chemotherapy; R=Radiotherapy; H=Hormone; D=Drug; Dx=Diagnosis.

formation. The average age of participants at time of diagnosis was 40.46 ± 5.84 years. Among 15 participants, 12 were men and all were married. Cancer types included four with stomach cancer, four with colorectal cancer, one with gastrointestinal stromal tumor, two with breast cancer, one with brain tumor, one with lung cancer, one with liver cancer, and one with non-Hodgkin's lymphoma. On average, participants took 6.06 ± 4.07 months after diagnosis before returning to work, and the time since diagnosis was 41.91 ± 27.00 months. Seven people returned to work in a different workplace, and eight returned to the same workplace.

3. Ethical considerations

Ethical approval for the study was obtained from the Bio-Ethics Institutional Review Board of H University in Seoul (IRB approval number: HYI-13-087-1). Written consent was obtained from all participants, and it was indicated that all interviews would be recorded, kept confidential, and treated anonymously. Participants were told that they would not be negatively affected if they declined or cancelled participation, and that they had the option to discontinue participation at any time.

4. Data collection

Qualitative data were collected from September 2013 to April 2014

using in-depth interviews conducted by the first author with a semi-structured interview. Participants were asked, "What was your experience of returning to work?" As the interview progressed, more specific questions were asked. During the interviews, the researcher observed and carefully noted facial expressions, attitudes, and gestures. One interview session took about 1~2 hours and the conversation was recorded using a handheld recorder. The researcher transcribed the interviews verbatim within 12 days. Each participant was interviewed 1~4 times at participants' workplaces, a nearby quiet coffee shop, or the researcher's office. During data collection, the researcher extracted significant concepts appearing in conversations through the process of continuous comparison and inquisition.

5. Data analysis

We coded data using Strauss and Corbin's[21] grounded theory method. Data analysis was conducted in three steps.

First, in open coding, the data were analyzed according to line units by repeatedly reading transcribed interviews by researchers. To find concepts and name them, all the field notes, transcriptions, and theoretical notes were read and reviewed carefully, word by word, to clearly expose the meaning and thoughts contained in the interview. Concepts were found, labeled, and classified by meanings. Similar concepts were

grouped into subcategories through continuous comparison, and similar subcategories were grouped into broader categories.

Second, axial coding was done, a process of linking subcategories with categories by re-assembling concepts that were disintegrated during the process of open coding. Based on the analyzed concepts and categories, the structures were analyzed in accordance with the paradigm model, and then, the process of change over time was analyzed. The questions “what are the difficulties suffered by officers with cancer in the process of returning to work?”, “how do they solve the problems?”, and “how do they adjust to the environment?” were analyzed through finding answers for why, how, where, and what consequences. Further, the relation with each category was identified using the paradigm model.

Third, in selective coding, which was the final stage of the analysis, a core category was derived to clearly represent the whole process of the study. The core category emerged from this repetitive trial-and-error process of analysis. When the core category was determined, the process that characterized the core category was analyzed.

6. Ensuring the quality of the results

For qualitative research assessment of the findings, credibility, fittingness, auditability, and confirmability, as proposed by Sandelowski[22], were used to ensure the quality of results. Assessment of the researcher’s capability to maintain relationships of trust with participants, gained through more than 20 years of experience as an army nurse was used to satisfy credibility. The researcher attempted to enhance credibility of the study by exploring participants’ various experiences through the same interview questions, transcribing the participants’ speech as they spoke, and then by obtaining feedback from the co-researcher. In addition, the researcher tried to achieve thorough analysis of the primary data by adding explanations and descriptions, including both typical and atypical elements of the data. Fittingness is related to diversity, limitations, universality, and depth of situations. In this study, the researcher attempted to enhance fittingness by describing the core category and each phase of the adjusting process in-depth. Auditability is the degree to which readers can track the researcher’s process of decision-making and the results of the research. For this purpose, the researcher described participant selection, data collection, and analysis procedures in as much detail as possible. Furthermore, in order to obtain relevance between the induced categories and actual data, the statements of participants are included in the relevant categories. As such, it is deemed that by securing credibility,

fittingness, and auditability, the experiences and viewpoints of participants are maximally reflected and prejudice of the researcher is minimized to establish confirmability.

RESULTS

1. Core category of return to work experience

The core category derived from the whole process across all categories revealed that the research phenomenon was the process of “living a new life after enduring difficulties”. This process represents officers with cancer enduring difficulties in the process of returning to work and, eventually, becoming a different person, living a new life from the past.

1) Enduring difficulties

Enduring difficulties made the participants feel distant from the center, as their work performance was restricted and they could not deal with important duties because of their inability to control their health condition. They felt alienated due to the reactions of people surrounding them regarding cancer patients and worried about their future with fear of cancer recurrence. However, participants demonstrated endurance with the present difficulties as a function of strong willpower.

(1) Feeling physically incapable

Due to the influence of cancer treatment, participants could not maintain their previous work performance. In the case of participants who returned to their previous places of work, their colleagues spontaneously relieved the participants of night duties. However, some participants still implemented night duties. After a night shift, they were extremely tired and exhausted, and it took a long time to overcome the fatigue.

I knew that night duty might be extremely difficult, but I did it. At first I tried to tell my colleagues that the night duty is difficult for me but I didn’t want to hear that I try to avoid the duty because I’m a woman. After the night shift, I was completely knocked out. (Participant 7)

I didn’t feel well because it was not long after the surgery. But I did all the field training. I even slept outdoors. It’s my job, so there’s no choice. (Participant 8)

(2) Becoming distant from the center

The participants could not seek out competitive positions that required frequent overwork and intense concentration due to the complications from various treatments and the lack of physical strength. They eventually lowered their expectations about promotions, even though they might have otherwise expected a promotion.

After this cancer...certain positions were restricted. Even if I could have expected a promotion, I had to give up because of my health. I have so many limitations. (Participant 11)

When the participants were told to get some rest and were excluded from events or meetings because of their health, they felt upset and stressed.

When I'm told to get some rest and excluded from functions, even though I feel fine, I feel depressed. I have to catch up with healthy people but when I hear those things, I feel bitter. (Participant 5)

(3) Feeling sad

Participants felt hurt due to the knowledge that their colleagues were reluctant to work with them when they were relocated. They felt ill-fated when they thought about having to live away from their families because of work, having to maintain a dietary regimen in an unfamiliar environment, and having to adjust to their new duties.

When I first said that I'll resume my work here, they said that cancer patients should not come here because the work here is tough. But I insisted that I should work here because I feel less stressed when I have a job. Actually, they want to avoid working with me. (Participant 10)

2) Living a new life

Living a new life is the result of using strategies to manage and control the phenomenon of enduring difficulties. With the cancer diagnosis, they came to look back on their health habits. They accepted the fact that they are patients and prioritized their health. Participants gradually recovered their health and implemented duties normally. When they had to get help from colleagues because their health was not completely recovered, they talked about their health condition frankly with colleagues and gained their understanding.

(1) Using strategies for enduring difficulties

Participants used action/interaction strategies for enduring difficulties. In this study, the strategies appeared as "controlling emotions", "accepting reality", "prioritizing health", "making efforts to improve relationships", and "looking for future jobs". Participants had the opportunity to examine their lives in retrospect as a function of the illness. Most participants thought that they were fortunate to be treated before their physical condition worsened. Furthermore, participants prioritized their health conditions, researched causes of cancer, collected information on cancer, and maintained hope that they would be cured by practicing healthy living habits. As their health improved, their scope of duties expanded. Instead of maintaining the status quo, they tried to develop their potential abilities for a better future, and some prepared required documentation to show the status of the disease with regard to the implementation of duties.

(2) Lowering the level of goals and being satisfied with reality

Through these processes, most participants gradually adjusted to their work and lowered their goals in daily life. They became content with the current situation. However, for some participants their health condition recovered more slowly. Eventually, this made participants feel uncomfortable with other colleagues and experience agony over whether to move to other units. In this case, they had difficulty balancing work and treatment.

My primary goal is to overcome the difficulties of the illness, to melt them into my daily life, to recover my health, and to live a new life. (Participant 1)

When I was not ill in the past, I had lots of plans. But after being sick, I don't make any grandiose plans for 10 years later. I just try to live every day happily. (Participant 4)

2. Types of return to work among officers with cancer

The types of cancer survivors' return to work were divided by segmenting attributes and dimensions of each category with a focus on the core category. The first type of cancer survivor, who had a positive work attitude, was positive about the reactions to cancer by people around them and who was living the new life very actively. These individuals were referred to as Self-Managing Types (Participants 1, 5, 7, 10, 11, 13 and 15). The next type of survivor had a positive work attitude but was

negative about the reactions to cancer by people around them and was living the new life somewhat actively. These individuals were referred to as Reality-Adjusting Types (Participants 2, 8, 9, and 12). The third type of survivor had a negative work attitude and was negative about the reactions to cancer by people around them, despite trying to live the new life actively. These individuals were considered People-Persuading Types (Participants 4 and 14). The last type of survivor had a negative work attitude, was negative about the reactions to cancer by people around them, and was living the new life somewhat passively. These individuals were considered Hypersensitively Reacting Types (Participants 3 and 6).

3. Process of return to work

The return to work experience among officers with cancer living a new life after enduring difficulties appears to proceed through four phases over time: chaos, positive thought formation, behavior practices, and reformation. The process of each phase was affected by the degree to which participants had recovered their health and physical strength, as well as support or negative reactions from other people. These phases and core category are shown in Figure 1 and described in the following section.

1) Phase I: Chaos

The chaos phase is characterized by total chaos due to the shock from the cancer diagnosis, psychological stress, alienation, and negative attention from people around them. Participants were in deep despair which

permeated their entire lives when they heard the shocking diagnosis of cancer. However, participants tried to overcome this shock, discontinued working, and started treatment. When they completed the initial treatment, they inquired about the possibility of returning to work. However, as the return to work date approached, they thought, "Have I hastened to return to work too much when I still have some aftereffects of cancer?" Participants felt hurt and depressed with regard to their co-workers' responses regarding cancer patients. As they felt uneasy, they were sensitive about minor physical symptoms and could not get rid of anxious feelings due to the fear and worry about aggravation of symptoms and recurrence.

I once visited the new troops before returning to work. They were talking among themselves, "Did you hear that a cancer patient is coming? Not even finished the treatment... Would he be able to work properly?" The prejudice is really strong. It is true that they don't want to accept cancer survivors. (Participant 4)

2) Phase II: Positive thought formation

The phase of positive thought formation is the phase in which the participants, with the cancer diagnosis as a turning point, looked back on their past in which they only struggled toward achieving their goals and began to think positively about their current situation. In this phase, participants tried to find significance through the process of illness and treatments and to overcome the present situation. They used the strate-

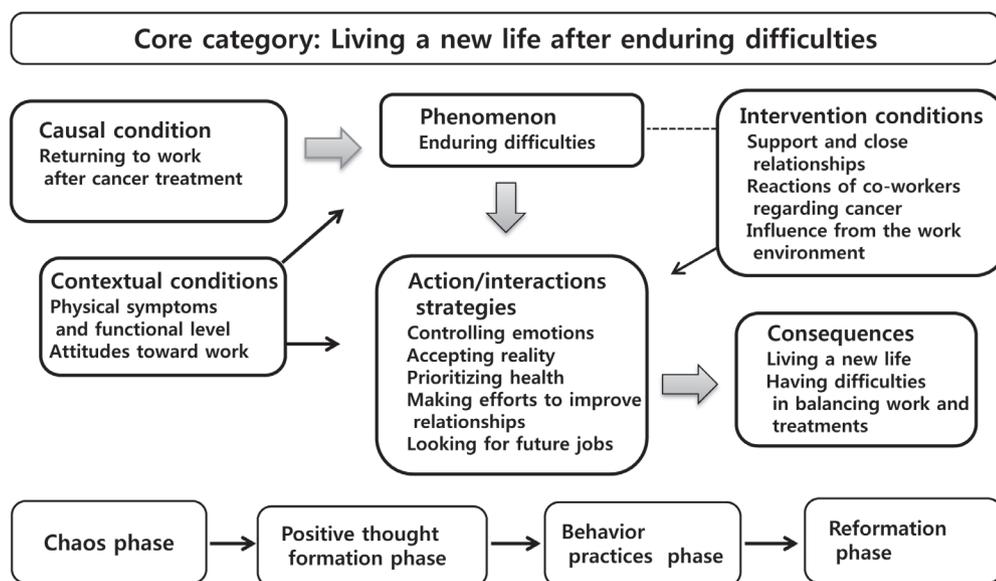


Figure 1. The return to work process among military officers with cancer.

gies of controlling emotions and accepting the reality. Through this process, they accepted their pain and realized the importance of life. Participants regarded their military life as their calling and displayed a strong will to fight against the cancer, comparing themselves to warriors fighting against enemies.

At first, I was frightened that I might die because of cancer. But instead, I began to think that I could survive and tried to get rid of the fear. I changed my mindset and thought, "I can live. I can be cured", and tried to have a positive mindset. Someday, it will be cured. (Participant 14)

3) Phase III: Behavior practices

The behavior practices phase is the period in which participants used action/interaction strategies to recover health, solve workplace difficulties, and adjust to their duties. Participants studied the cause of their disease and started practicing daily habits that suited themselves. When participants gradually recovered their health, they participated in service and training normally. When they could not participate, they asked for the understanding of their coworkers, and by explaining their health condition frankly, they tried to build rapport. Most participants chose positions that allowed them to balance work and healthcare. When they judged it to be difficult to balance work and healthcare, they considered changing military units or branches.

If other people think that I'm not working hard compared to other people, that can be a problem. So I always express thanks for their considerations and I frequently tell them about my physical conditions. (Participant 11)

4) Phase IV: Reformation

The reformation phase is the period in which a new life distinct from the past is formed through new practices. As a result, participants practiced healthy habits and, as they made efforts to improve relationships with coworkers, they could adjust to their duties more easily. They came to realize the importance of healthcare, and that no other person but themselves could implement healthy behavior. They lowered their goals in daily life and learned to be satisfied with what they had. As a result, their identities changed, health habits and interpersonal relations were newly formed, and they were living a new life distinct from the past. However, some participants were slow to recover their health, and they

often suffered difficulties in balancing work and treatment.

After losing my health once, I'm now taking more care of my health. Now I'm working with a thought that you can work better when you're healthy. Now I'm getting better with working and feeling easy and relaxed. (Participant 12)

DISCUSSION

In Korea, officers with cancer have been able to serve continuously since 2007. Therefore, it is important to understand how cancer affects officers serving in the army. This study was the first in Korea in which an investigation was done of the return to work experience of military officers with cancer, and to explore how they endure negative reactions and how they adjust to maintaining a balance between work and treatment. The results of this study make a substantial contribution by describing the process of enduring difficulties and adjusting to work among officers with cancer who, after completing the initial treatment and during their recovery, they return to work with high physical demands.

The core category of return to work experiences among officers with cancer was found to be living a new life after enduring difficulties. It was identified as having four phases which the officers had to undergo to adjust to their duties: chaos, positive thought formation, behavior practices, and reformation.

The core process of enlisted women with breast cancer was, in an earlier study, found to be balancing demands and expectations. This is somewhat different from the core category of the present study. This may be because most participants in the present study focused on healthcare in order to prevent recurrence and were trying to reduce the burden of their duties. However, in Wilmoth's[16] study, participants were all women with childcare issues in addition to their career issues and treatment, and thus 'balancing demands and expectations' appears to be a reasonable core construct.

Participants' return to work was important in terms of economic concerns, was a process of recovery, provided psychological security, and acted as a diversion. The findings were consistent with previous studies[2,7,19,23,24]. However, job satisfaction and recovering a sense of existence were important concepts revealed in this study. This outcome may be the result of satisfaction with the rank and position of each participant who had served in the army for at least 10 years.

In relation to the return to work, participants had not received practi-

cal information or support from medical practitioners. Although participants returned to work after initial treatment, continuous fatigue, depression, and pain made it difficult for them to implement required duties. A lack of information and support from the medical team and effects of the cancer and treatment, which were identified as issues in this study, is consistent with issues identified in previous studies[11,15,23]. Therefore, it is necessary to instruct medical practitioners to maintain a reliable relationship with cancer survivors and to provide information by intervening at points of decline in physical function and the capacity of survivors to be active[25].

Participants changed their priorities at work, as they thought balancing work and health care was important to return to the work performance they had displayed before being diagnosed with cancer. This change in priorities among cancer survivors was reported in other qualitative studies[7,23,25]. The reasons for this shift in priorities, however, differed between studies. Some individuals placed more emphasis on giving themselves more personal time in relation to work due to fear of recurrence and uncertainty about life[7], wanting to use their time meaningfully, and wanting to be a better person[23]. In this study, in order to maintain a balance between health recovery and work performance, participants made adjustments to their work by reducing work burdens and minimizing work stress at the initial stage of returning to work. In addition, they maintained a healthy diet, exercised regularly, and conducted continuous management including regular examinations to prevent recurrence.

Among the participants, 12 (80%) were relocated after the cancer diagnosis. Participants who returned to the same workplace received substantial support with night duties and outdoor training from commanders and colleagues with whom they had worked previously. However, when participants were relocated, the coworkers of the new workplace had mostly negative perceptions about the work ability of participants. Negative reactions may have occurred because military activities require highly demanding physical activities, and it would be difficult to conduct normal activities immediately following treatment[16]. This is consistent with the finding of a Korean study that 56.1% of participants agreed that the work ability of cancer patients would be reduced even after successful treatment[13].

Coworkers in the workplace expected that officers with cancer would implement duties normally after some time had passed following their return and subsequent health recovery. However, in reality, there were more cases in which considerable time had passed following treatment completion and cancer-related fatigue continued to affect participants' imple-

mentation of duties. Previous studies[2,6,7] noted that it is necessary for cancer survivors to accept their limitations in work performance capacity and to talk to supervisors and colleagues frankly about the facts regarding their cancer recovery. As people generally lack knowledge and understanding about cancer and easily forget that these individuals are patients, sincere communication is necessary to discuss cancer survivors' health status and to share healthcare experiences. Participants considered guaranteeing their attendance at regular examinations and other treatments to be important. This is consistent with the findings from a study on breast cancer survivors among immigrants and ethnic minorities[9], which reported that work hour flexibility and adjustment have a positive impact on their return to work experience. Therefore, it is important to guarantee conditions for treatment in order to monitor their present health status and manage recurrence prevention through regular examinations.

The return to work experience of the military officers and that of civilians are similar in many regards. However, military officers differ in that their workplace changes frequently, physical fitness testing is required, and they have to perform specific duties and field training. Thus, thorough healthcare, physical fitness management, and enhanced social support is required.

Based on the discussion so far, it is possible to propose a set of nursing interventions applicable to each phase of the return to work among officers with cancer. In the chaos phase, it is necessary to identify patients' preparedness for a change of duties and roles and to understand what support is needed and what is expected before the transfer[20]. In the positive thought formation phase, participants should understand that they can discover life aims through this experience, and they should be encouraged by the opportunity for growth[26]. In the behavior practices phase, if the patient is in the middle of treatment or within 1 year of completing treatment, adverse effects of exercising or exercise-related injuries can hamper the treatment[27]. Therefore, it is necessary to provide evidence-based information or connect them with experts for advice. Further, as it is not easy to change eating habits or control weight, they tend to postpone weight control until after surgery or radiation and anti-cancer treatments[28]. Thus, life habits, such as diet, must be properly controlled. In the final phase, it is necessary for them to accept prioritizing personal time over work to improve coping ability against cancer[7,10,23]. In addition, individuals should be praised through their willpower to promote the practice of new health-related habits.

There are some limitations in this study. As a qualitative study, caution should be exercised in interpreting the results. In this study, data

were analyzed for 15 career soldiers with cancer with at least 10 years of military service. When applying the research findings to other cancer survivors, the social and cultural background of Korea should be considered. Despite these limitations, various stages, treatments, and diagnoses of the illness were sufficiently considered, as well as the rank and gender of the patients.

CONCLUSIONS

In this study a substantive theory was developed by revealing military officer cancer survivors' endeavor to maintain new healthy habits and improve relationships with people around them and the importance of social support systems in order for officers with cancer to live a new life after enduring difficulties. The most difficult aspect of the process of returning to work was the negative perceptions of cancer among coworkers. The most worrying issue was fear of recurrence, and the top priority was healthcare. Therefore, along with managing physical symptoms, a psychosocial approach is required for officers with cancer when they return to work.

As the return to work experiences of officers with cancer were different depending on the phases, the study results suggest that differentiated systematic nursing should be applied to cancer survivors with consideration to each individual's context and intervention situations at each phase. By illuminating the experiences of return to work among officers with cancer, this study will be helpful in developing a more effective nursing intervention by enhancing the perspectives and insights of practitioners.

Based on the findings, the following considerations are suggested. First, it is necessary to develop tools that can measure the degree of preparedness for return to work among officers with cancer and their return phase. Second, in order to identify the factors related to return to work in greater detail, a focus group study would be necessary targeting cancer survivors, managers, and medical practitioners.

REFERENCES

1. Ministry of Health & Welfare, Korea Central Cancer Registry, National Cancer Center. Annual report of cancer statistics in Korea in 2011 [Internet]. Seoul: Ministry of Health & Welfare; 2013 [cited 2014 May 26]. Available from: <http://www.cancer.go.kr/mbs/cancer/subview.jsp>.
2. Kennedy F, Haslam C, Munir F, Pryce J. Returning to work following cancer: A qualitative exploratory study into the experience of returning to work following cancer. *European Journal of Cancer Care*. 2007;16(1):17-25. <http://dx.doi.org/10.1111/j.1365-2354.2007.00729.x>
3. National Cancer Institute. NCI dictionary of cancer terms [Internet]. Bethesda, MD: Author; 2014 [cited 2014 May 10]. Available from: <http://www.cancer.gov/dictionary>.
4. Korea Law Information Center. Enforcement rules of military personnel act [Internet]. Seoul: Korea Ministry of Government Legislation; 2014 [cited 2014 May 26]. Available from: <http://www.law.go.kr/lsSc.do?menuId=0&subMenu=4&query=#liBgcolor5>.
5. Chung HS, Jung SY. Perceptions of soldiers' partner for the characteristics of their family system, partner's job and the welfare needs. *Korean Academy of Military Social Welfare*. 2012;5(1):111-144.
6. Tamminga SJ, de Boer AG, Verbeek JH, Frings-Dresen MH. Breast cancer survivors' views of factors that influence the return-to-work process-a qualitative study. *Scandinavian Journal of Work, Environment and Health*. 2012;38(2):144-154. <http://dx.doi.org/10.5271/sjweh.3199>
7. Nachreiner NM, Dagher RK, McGovern PM, Baker BA, Alexander BH, Gerberich SG. Successful return to work for cancer survivors. *AAOHN Journal*. 2007;55(7):290-295.
8. Grunfeld EA, Cooper AF. A longitudinal qualitative study of the experience of working following treatment for gynaecological cancer. *Psycho-Oncology*. 2012;21(1):82-89. <http://dx.doi.org/10.1002/pon.1874>
9. Blinder VS, Murphy MM, Vahdat LT, Gold HT, de Melo-Martin I, Hayes MK, et al. Employment after a breast cancer diagnosis: A qualitative study of ethnically diverse urban women. *Journal of Community Health*. 2012;37(4):763-772. <http://dx.doi.org/10.1007/s10900-011-9509-9>
10. Amir Z, Neary D, Luker K. Cancer survivors' views of work 3 years post diagnosis: A UK perspective. *European Journal of Oncology Nursing*. 2008;12(3):190-197. <http://dx.doi.org/10.1016/j.ejon.2008.01.006>
11. Tiedtke C, de Rijk A, Dierckx de Casterlé B, Christiaens MR, Donceel P. Experiences and concerns about 'returning to work' for women breast cancer survivors: A literature review. *Psycho-Oncology*. 2010;19(7):677-683. <http://dx.doi.org/10.1002/pon.1633>
12. Park JH, Park JH, Kim SG, Lee KS, Hahm MI. Changes in employment status and experience of discrimination among cancer patients: Findings from a nationwide survey in Korea. *Psycho-Oncology*. 2010;19(12):1303-1312. <http://dx.doi.org/10.1002/pon.1694>
13. Cho J, Smith K, Choi EK, Kim IR, Chang YJ, Park HY, et al. Public attitudes toward cancer and cancer patients: A national survey in Korea. *Psycho-Oncology*. 2013;22(3):605-613. <http://dx.doi.org/10.1002/pon.3041>
14. Tamminga SJ, de Boer AG, Bos MM, Fons G, Kitzen JJ, Plaisier PW, et al. A hospital-based work support intervention to enhance the return to work of cancer patients: A process evaluation. *Journal of Occupational Rehabilitation*. 2012;22(4):565-578. <http://dx.doi.org/10.1007/s10926-012-9372-2>
15. Lydon A, Hughes S. Cancer in the workplace: Evaluation of a resource to help those affected by cancer; return to work in the UK. *International Journal of Therapy and Rehabilitation*. 2012;19(12):689-695.
16. Wilmoth MC. The federal nursing services award. Enlisted women with breast cancer: Balancing demands and expectations. *Military Medicine*. 2003;168(7):514-519.
17. Choi KS, Kim EJ, Lim JH, Kim SG, Lim MK, Park JG, et al. Job loss and reemployment after a cancer diagnosis in Koreans-a prospective cohort study. *Psycho-Oncology*. 2007;16(3):205-213. <http://dx.doi.org/10.1002/pon.1054>
18. Lee MK, Lee KM, Bae JM, Kim S, Kim YW, Ryu KW, et al. Employ-

- ment status and work-related difficulties in stomach cancer survivors compared with the general population. *British Journal of Cancer*. 2008;98(4):708-715. <http://dx.doi.org/10.1038/sj.bjc.6604236>
19. Heo EK, Kang HS, Kim KH, Hong YP. Return-to-work experiences among breast cancer survivors. *Journal of the Korean Society of Maternal and Child Health*. 2011;15(1):92-102.
 20. Meleis AI. *Transitions theory: Middle range and situation specific theories in nursing research and practice*. New York, NY: Springer Publishing Company; 2010.
 21. Strauss A, Corbin J. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. 2nd ed. Thousand Oaks, CA: SAGE Publications; 1998.
 22. Sandelowski M. The problem of rigor in qualitative research. *ANS Advances in Nursing Science*. 1986;8(3):27-37.
 23. McKay G, Knott V, Delfabbro P. Return to work and cancer: The Australian experience. *Journal of Occupational Rehabilitation*. 2013;23(1):93-105. <http://dx.doi.org/10.1007/s10926-012-9386-9>
 24. Main DS, Nowels CT, Cavender TA, Etschmaier M, Steiner JF. A qualitative study of work and work return in cancer survivors. *Psycho-Oncology*. 2005;14(11):992-1004. <http://dx.doi.org/10.1002/pon.913>
 25. Désiron HA, Donceel P, de Rijk A, Van Hoof E. A conceptual-practice model for occupational therapy to facilitate return to work in breast cancer patients. *Journal of Occupational Rehabilitation*. 2013;23(4):516-526. <http://dx.doi.org/10.1007/s10926-013-9427-z>
 26. Jim HS, Jacobsen PB. Posttraumatic stress and posttraumatic growth in cancer survivorship: A review. *Cancer Journal*. 2008;14(6):414-419. <http://dx.doi.org/10.1097/PPO.0b013e31818d8963>
 27. Humpel N, Iverson DC. Review and critique of the quality of exercise recommendations for cancer patients and survivors. *Supportive Care in Cancer*. 2005;13(7):493-502. <http://dx.doi.org/10.1007/s00520-005-0811-x>
 28. Demark-Wahnefried W, Case LD, Blackwell K, Marcom PK, Kraus W, Aziz N, et al. Results of a diet/exercise feasibility trial to prevent adverse body composition change in breast cancer patients on adjuvant chemotherapy. *Clinical Breast Cancer*. 2008;8(1):70-79. <http://dx.doi.org/10.3816/CBC.2008.n.005>