

Return to work for cancer survivors: Importance and challenges

Yağmur Kınacı Gümüşçubuk¹
ORCID: 0000-0002-6444-4423

Nursel Çalık Başaran²
ORCID: 0000-0002-1290-6905

¹ Hacettepe University Medical Faculty, Public Health Department, Occupational and Work-Related Diseases Division, Ankara, Türkiye.

² Hacettepe University Medical Faculty, Internal Medicine Department, Occupational and Work-Related Diseases Division, Türkiye.

Corresponding Author: Yağmur Kınacı Gümüşçubuk
E-mail: yagmurkinaci90@gmail.com

Received: 9 October 2023, Accepted: 4 March 2024,
Published online: 29 March 2024

ABSTRACT

The loss of gainful employment can lead to a diminished quality of life, reduced self-esteem, and financial difficulties for cancer survivors. Understanding the factors influencing their ability to re-enter the workforce is crucial. Providing workplace accommodations, reducing workloads, and fostering support from employers and colleagues can incentivize cancer survivors to return to work. Physicians also play a pivotal role in aiding patients through the return-to-work process, thereby enhancing their overall quality of life. Early evaluation and access to social support systems are essential for cancer survivors. In this comprehensive review, we examine the process of cancer survivors returning to work, the associated factors, and the primary challenges, drawing upon current research.

Keywords: Cancer, return-to-work, survivor, social support, quality of life

INTRODUCTION

Cancer is a global health concern, with significant prevalence in Turkey and worldwide. According to the Global Cancer Observatory (GLOBOCAN) 2020, there were 19.3 million new cancer cases diagnosed in 2020, resulting in nearly 10.0 million cancer-related deaths [1]. GLOBOCAN predicts a 47% increase in cancer cases to 28.4 million by 2040 [1]. Cancer treatment is a protracted and life-altering process, significantly impacting the quality of life and affecting multiple facets of survivors' lives [2]. Early detection and medical interventions have improved cancer survival rates for specific cancer types [3].

A substantial proportion of cancer survivors are under the age of 65, with 35% falling within the 40 to 64 age range, and predominantly part of the working population [4]. The increasing number of cancer survivors, attributed to early diagnosis and enhanced treatment approaches, has underscored the importance of addressing their re-employment, workability, and social reintegration [5,6]. Systematic reviews have shown

that 43-93% of cancer survivors aim to return to work within six months to two years post-diagnosis [7]. Additionally, Mehnert et al. conducted a comprehensive review of 64 studies spanning from 2000 to 2009, revealing that 62% (24-94%) of cancer patients had successfully re-entered the workforce during or after primary therapies [8]. Returning to work is a critical determinant of cancer patients' overall quality of life. It not only provides a source of income but also signifies a triumph over the disease and a return to normalcy [9].

However, cancer survivors encounter various challenges when attempting to return to work, including a 37% higher risk of unemployment compared to healthy individuals [10]. Factors such as job discrimination, the difficulty of balancing treatment with full-time employment, and mental or physical limitations contribute significantly to unemployment [11,12]. Moreover, the likelihood of returning to work varies depending on the type of cancer, with survivors of breast, skin, and certain genital cancers demonstrating higher

re-employment rates, while those with lung, gastrointestinal, and hematological cancers face greater difficulties [13].

The initial phase of returning to work is pivotal, but understanding the factors that sustain survivors in their working lives is equally important [14]. A meta-synthesis identifies three categories of factors influencing the return to work: personal factors, the presence of a support system, and occupational factors [15]. While there has been a notable increase in qualitative studies on cancer survivorship and returning to work in recent years, these studies have often focused on specific cancer types or employment issues [15]. This review aims to outline the process and factors influencing cancer survivors' return to work across four main domains.

Why is the return to work important for cancer survivors?

The significance of returning to work for cancer survivors cannot be overstated. Employment enhances their sense of identity, self-esteem, financial stability, and social relationships [16]. Many cancer patients aspire to and can re-enter the workforce after treatment [17]. Returning to work can mitigate social isolation, loss of self-esteem, boredom, and financial distress among cancer survivors [18]. For patients, resuming work signifies complete recovery and a return to normalcy [19,20].

Work provides structure and fosters social connections, contributing positively to cancer survivors' psychological well-being [17]. Since work can help patients regain a sense of normalcy, value, meaning, and reintegration into society, work may comprise a range of positive consequences for the recovery and the psychological well-being of cancer survivors [21]. A positive attitude toward work is conducive to work resumption and is a crucial factor in work performance among patients with chronic conditions [22]. Recent empirical studies have highlighted the importance of patients' expectations of recovery as predictors of return to work, irrespective of their diagnosis or treatment [23].

The loss of employment leads to a reduced quality of life, diminished self-esteem, and financial strain [24]. Financial distress has been significantly associated with an increased risk of cancer-related mortality [25]. Efforts to identify barriers to returning

to work are essential to ensure the financial stability of patients and their families, who often depend on their income [26]. Consequently, it is imperative to identify at-risk patients promptly and provide them with the support of social security systems [26].

What are the challenges in work life for cancer survivors?

Unfortunately, cancer survivors face a higher risk of unemployment compared to their healthy counterparts [27]. Researches indicate that unemployment risk is associated with extensive surgery, advanced tumor stage, and specific cancer types, including liver, lung, hematological malignancies, brain and central nervous system cancers, gastrointestinal cancers, pancreatic cancer, head and neck cancers, and gynecological cancers [5,8]. Indeed, quantitative studies indicate that cancer survivors experience a range of disadvantages in the labor market, varying by cancer type [18].

Factors such as chemotherapy, older age, and lower educational levels have also been linked to unemployment risk [8]. Chemotherapy has consistently emerged as a negative prognostic factor for return to work [28].

Occupationally active cancer survivors often deal with physical and psychosocial challenges in the workplace [29]. Fatigue, a common and debilitating side effect of cancer and its treatment, poses a substantial problem at work and has been identified as a primary impediment to return to work [30-32]. Cognitive limitations, such as poor concentration and memory deficits, are reported as the most problematic post-treatment symptoms by breast cancer survivors [33].

Persistent physical limitations, including difficulties with lifting, fatigue, treatment-induced menopausal symptoms, and cognitive impairments such as poor concentration, memory deficits, attention problems, coping issues, depression, and anxiety, may hinder the workability of cancer survivors [32]. Physical workload, such as heavy lifting, has also been found to negatively impact cancer survivors' employment prospects [34]. Many returning survivors report a loss of self-confidence, difficulty managing symptoms at work, reduced job performance, and compromised career prospects [18].

In one study, 17% of all returning cancer survivors experienced a cancer-related reduction in working hours [13]. Physical impairments may adversely affect work performance, resulting in productivity loss, reduced workability, presenteeism, recurrent sick leave, or long-term work disability [32]. A study by Steiner demonstrated that over half of the sample changed their occupational roles upon returning to work due to cancer-related physical and psychological symptoms [35].

To address these challenges, various solutions have been proposed, including gradual return to work, increased job autonomy, reduced workloads, and enhanced communication between occupational and attending physicians [36,37]. Early intervention by physicians and employers is crucial for improving the quality of life and addressing these issues.

Roles of Physicians in the Return to Work of Cancer Survivors

Physicians play a vital role in facilitating the return-to-work process and enhancing the quality of life for cancer survivors. Physicians should inquire about patients' return to work status and any challenges they may encounter during the process [38]. Fitness assessments for work should be conducted to evaluate workers' capabilities and health risks in their work environment, ensuring that they can perform their tasks without jeopardizing their health [39]. Referral to occupational physicians may be necessary and beneficial in cases where work-related health issues arise. The occupational physician should distinguish between symptoms caused by exposure to work and those due to other origins [40]. Oncologists and psychologists address various distressing issues related to cancer, including depression, diminished self-image, and family functioning, which can have a more significant impact than work-related concerns [41].

Advances in treatment, clinical services, symptom management, rehabilitation, and disability accommodation can improve employment outcomes for cancer survivors [27]. Occupational physicians are well-placed to implement workplace accommodations [42]. Studies have shown that the occupational physician's assessment of return to work can shorten sick leave and increase patient satisfaction [24]. Tailored interventions and rehabilitation programs should be developed to meet individual patient needs [5].

Physical exercise, particularly high-intensity exercise during or after chemotherapy, has been shown to enhance the work participation of cancer survivors by improving return to work rates and working hours [43]. Beyond medical and physical considerations, comprehensive support for return to work should encompass psychological and social assistance [5]. Healthcare professionals must also be informed about the adverse consequences of not returning to work on cancer survivors' overall well-being [44].

The management of return-to-work issues should begin during cancer diagnosis and treatment and involve primary oncologists and workplace physicians, particularly for curable cancers. Collaboration between oncologists and workplace/occupational physicians can provide valuable insights into the employee's health, performance status, risk factors to avoid, potential complications, and workplace conditions, ultimately enhancing return to work and productivity. Workplace doctors, working in conjunction with oncologists, occupational physicians, and occupational safety professionals, should conduct risk assessments and management in the workplace. Clinical guidelines on cancer management, especially for curable cancers, should incorporate detailed advice on returning to work for cancer survivors.

Roles of Employers in the Return to Work of Cancer Survivors

Physical and psychological factors, workplace social dynamics, and support during the return-to-work process are critical considerations for cancer survivors [26]. Some cancer patients face job discrimination, hostility in the workplace, a lack of emotional and practical support from supervisors and occupational health services, and disputes related to employment terms [10]. Studies have shown that social support from supervisors and colleagues positively correlates with the value cancer survivors place on their work [45]. Flexible work arrangements, a potential managerial function, have been associated with a higher likelihood of employment or return to work among cancer survivors [5].

Employers can facilitate the return-to-work process by offering workplace modifications, simplifying job roles, reducing workloads, adjusting work schedules (including eliminating night shifts),

providing medical leave, and granting hourly leave. Additionally, support from colleagues can encourage cancer survivors to return to work [46]. A study showed that a high percentage of employed breast cancer patients returned to work after treatment and that workplace accommodations played an important role in their return [47]. Workplace accommodations and paid sick leave during treatment are crucial for a successful return to work [27].

The creation of favorable conditions for social integration within the workplace, along with equitable employment terms and professional assistance during the resumption of work, significantly enhance the likelihood of a successful return to work [26].

It is imperative to gather data on work-related impairments and challenges faced by cancer survivors across various work sectors and to understand how employers address these issues [8]. Stakeholders should develop strategies for vocational interventions that facilitate the return to work or enable survivors to find more suitable employment, as such interventions are currently lacking [39]. These strategies should include workplace modifications, adjustments to working hours and duties, accommodation for hospital appointments, load reduction, assistance provisions, and personnel changes [18].

What do clinical guidelines recommend?: The IOSH Research Committee

Current clinical guidelines for various cancer types inadequately address the topic of returning to work. The Institution of Occupational Safety and Health (IOSH) Research Committee conducted a systematic literature review and case studies on occupational safety and health considerations for cancer survivors returning to work [48]. The risk assessment process and the implementation of risk reduction measures are critical aspects of ensuring safety and health in the workplace. In the context of returning to work after cancer, the risk assessment process is pivotal in determining the measures that can facilitate the return to work process. Individualized risk assessments have proven effective in integrating individuals back into the workplace. Effective communication among employers, employees, and returning individuals

is crucial for a successful return to work for cancer survivors.

The systematic literature review and case studies have identified key themes that should be considered in risk assessments for returning to work after cancer. Regarding safety concerns, research evidence highlights the impact of physical and psychological demands at work and the persistence of fatigue as a risk factor. Fatigue management can be addressed through flexible work schedules and breaks. Cognitive changes, such as poor concentration and memory deficits, also warrant consideration, with job design and breaks serving as potential solutions. Line managers play a crucial role in ensuring that returning individuals are not overwhelmed [48].

The number of cancer survivors returning to work is on the rise, promising an expanding evidence base. Further research is needed to identify barriers and facilitators to remaining in or changing jobs, interventions to enhance return to work and work-life quality, and clinical management guidelines that adequately address return to work issues for clinicians who care for cancer patients.

Given the potential benefits and challenges associated with returning to work for cancer survivors, there is an urgent need to develop new employment-promoting strategies, policies, and improved health and social support programs. These initiatives should support cancer survivors in successfully returning to work and maintaining their productivity.

Author contribution

Study conception and design: YKG and NÇB; data collection: YKG and NÇB; analysis and interpretation of results: YKG and NÇB; draft manuscript preparation: YKG and NÇB; All authors reviewed the results and approved the final version of the manuscript.

Funding

The authors declare that the study received no funding.

Conflict of interest

The authors declare that there is no conflict of interest.

REFERENCES

- [1] Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin.* 71(3): 209-249, 2021.
- [2] Mullen E, Mistry H. Managing Cancer Survivorship Issues. *Journal for Nurse Practitioners* 14(4): 337-343, 2018.
- [3] Recommendation De Bonne Pratique. www.has-sante.fr Published online 2019. (Accessed November 12, 2022).
- [4] Parry C, Kent EE, Mariotto AB, Alfano CM, Rowland JH. Cancer Survivors: A Booming Population. *Cancer Epidemiol Biomarkers Prev* 20(10): 1996, 2011.
- [5] Mehnert A, de Boer A, Feuerstein M. Employment challenges for cancer survivors. *Cancer* 119: 2151-2159, 2013.
- [6] Crevenna R. Return-to-work outcomes in cancer survivors. *Supportive Care in Cancer* 25(10): 3005-3006, 2017.
- [7] Islam T, Dahlui M, Majid H. A, Nahar A. M, Mohd Taib N. A, Su T. T. Factors associated with return to work of breast cancer survivors: a systematic review. *BMC public health* 14(3): 1-13, 2014.
- [8] Mehnert A. Employment and work-related issues in cancer survivors. *Crit Rev Oncol Hematol* 77(2): 109-130, 2011.
- [9] Rollin L, de Blasi G, Boucher L, Bouteyre E, Gehanno JF. Return-to-work support in cancer patients: Which methodology? *Bull Cancer* 107(2): 200-208, 2020.
- [10] Tamminga SJ, de Boer AGEM, Verbeek JHAM, Frings-Dresen MHW. Return-to-work interventions integrated into cancer care: a systematic review. *Occup Environ Med* 67(9): 639-648, 2010.
- [11] 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. *Journal of Clinical Oncology* 26(8): 1302-1309, 2008.
- [12] Nancy Nachreiner by M, Dagher rada K, McGovern PM, Baker BA, Alexander BH, Goodwin Gerberich S. Successful return to work for cancer survivors. *Aaohn Journal* 55(7): 290-295, 2007.
- [13] Arndt V, Koch-Gallenkamp L, Bertram H, et al. Return to work after cancer. A multi-regional population-based study from Germany. *Acta Oncologica* 58(5): 811-818, 2019.
- [14] Butow P, Laidsaar-Powell R, Konings S, Lim CYS, Koczwara B. Return to work after a cancer diagnosis: a meta-review of reviews and a meta-synthesis of recent qualitative studies. *Journal of Cancer Survivorship* 14(2): 114-134, 2019.
- [15] Stergiou-Kita M, Grigorovich A, Tseung V, et al. Qualitative meta-synthesis of survivors' work experiences and the development of strategies to facilitate return to work. *Journal of Cancer Survivorship* 8(4): 657-670, 2014.
- [16] Yagil D, Eshed-Lavi N, Carel R, Cohen M. Return to Work of Cancer Survivors: Predicting Healthcare Professionals' Assumed Role Responsibility. *J Occup Rehabil* 29(2): 443-450, 2019.
- [17] Rasmussen DM, Elverdam B. The meaning of work and working life after cancer: an interview study. *Psychooncology* 17(12): 1232-1238, 2008.
- [18] Wells M, Williams B, Firnigl D, et al. Supporting 'work-related goals' rather than 'return to work' after cancer? A systematic review and meta-synthesis of 25 qualitative studies. *Psychooncology* 22(6): 1208-1219, 2013.
- [19] 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. *Eur J Cancer Care (Engl)* 16(1): 17-25, 2007.
- [20] Spelten ER, Sprangers MAG, Verbeek JHAM. Factors reported to influence the return to work of cancer survivors: a literature review. *Psychooncology* 11(2): 124-131, 2002.
- [21] Peteet JR. Cancer and the meaning of work. *Gen Hosp Psychiatry* 22(3): 200-205, 2000.
- [22] Ekbladh E, Thorell LH, Haglund L. Perceptions of the work environment among people with experience of long term sick leave. *Work* 35(2): 125-136, 2010.
- [23] Ekbladh E, Haglund L, Thorell LH. The Worker Role Interview-Preliminary Data on the Predictive Validity of Return to Work of Clients after An Insurance Medicine Investigation. *J Occup Rehabil* 14(2): 131-141, 2004.
- [24] Verbeek J, Spelten E, Kammeijer M, Verbeek JHAM. Return to work of cancer survivors: a prospective cohort study into the quality of rehabilitation by occupational physicians. *Occup Environ Med* 60(5): 352-357, 2003.
- [25] Perrone F, Jommi C, di Maio M, et al. The association of financial difficulties with clinical outcomes in cancer patients: secondary analysis of 16 academic prospective clinical trials conducted in Italy. *Annals of Oncology* 27(12): 2224-2229, 2016.
- [26] Seifart U, Schmielau J. Return to Work of Cancer Survivors. *Oncol Res Treat* 40(12): 760-763, 2017.
- [27] De Boer AGEM, Taskila T, Ojajärvi A, van Dijk FJH, Verbeek JHAM. Cancer Survivors and Unemployment: A Meta-analysis and Meta-regression. *JAMA* 301(7): 753-762, 2009.
- [28] Van Muijen P, Weevers NLEC, Snels IAK, et al. Predictors of return to work and employment in cancer survivors: a systematic review. *Eur J Cancer Care (Engl)* 22(2): 144-160, 2013.
- [29] Smith T, Stein KD, Mehta CC, et al. The rationale, design, and implementation of the American Cancer Society's studies of cancer survivors. *Cancer* 109(1): 1-12, 2007.
- [30] Goedendorp MM, Gielissen MFM, Verhagen CAHHVM, Bleijenberg G. Development of fatigue in cancer survivors: A prospective follow-up study from diagnosis into the year after treatment. *J Pain Symptom Manage* 45(2): 213-222, 2013.
- [31] Kiasuwa Mbengi R, Otter R, Mortelmans K, et al. Barriers and opportunities for return-to-work of cancer survivors: time for action-rapid review and expert consultation. *Systematic reviews* 5: 1-10, 2016.

- [32] Duijts SFA, van Egmond MP, Spelten E, van Muijen P, Anema JR, van der Beek AJ. Physical and psychosocial problems in cancer survivors beyond return to work: a systematic review. *Psychooncology* 23(5): 481-492, 2014.
- [33] Boykoff N, Moieni M, Karen Subramanian S. Confronting chemobrain: an in-depth look at survivors' reports of impact on work, social networks, and health care response. *J Cancer Surviv* 3: 223-232, 2009.
- [34] Taskila, T, Lindbohm M. L. Factors affecting cancer survivors' employment and work ability. *Acta Oncologica* 46(4): 446-451, 2007.
- [35] Steiner JF, Cavender TA, Nowels CT, et al. The impact of physical and psychosocial factors on work characteristics after cancer. *Psychooncology* 17(2): 138-147, 2008.
- [36] Buijs P, Van Amstel R, van Dijk F. Dutch occupational physicians and general practitioners wish to improve cooperation. *Environ Med* 56(10): 709-713, 1999.
- [37] Spelten E.R., Sprangers M.A., Verbeek J.H., Factors Reported To Influence The Return To Work Of Cancer Survivors: A Literature Review. *Psychooncology* 11: 124-131, 2002.
- [38] De Boer A, Verbeek J, Spelten ER, et al. Work ability and return-to-work in cancer patients. *Br J Cancer* 98:1342-1347, 2008.
- [39] Franco, G. Occupation and breast cancer: fitness for work is an aspect that needs to be addressed. *Med Lav* 104(2): 87-92, 2013.
- [40] Magnavita N. Work-related symptoms in indoor environments: a puzzling problem for the occupational physician. *International archives of occupational and environmental health* 88: 185-196, 2015.
- [41] Yagil D, Eshed-Lavi N, Carel R, Cohen M. Return to Work of Cancer Survivors: Predicting Healthcare Professionals' Assumed Role Responsibility. *J Occup Rehabil* 29(2): 443-450, 2019.
- [42] Verbeek J, de Boer A, Taskila T. Primary and occupational health care providers. *Work and Cancer Survivors* 191-209, 2011.
- [43] Leensen M, Researcher P, Groeneveld I, Frings-Dresen M, Angela E M de Boer CG. Feasibility of a multidisciplinary intervention to help cancer patients return to work. *Eur J Cancer Care* 27, 2018.
- [44] Wells M, Williams B, Firnigl D, et al. Supporting "work-related goals" rather than "return to work" after cancer? A systematic review and meta-synthesis of 25 qualitative studies. *Psycho-oncology* 22(6): 1208-1219, 2013.
- [45] Nilsson MI, Saboonchi F, Alexanderson K, Olsson M, Wennman-Larsen A, Petersson LM. Changes in importance of work and vocational satisfaction during the 2 years after breast cancer surgery and factors associated with this. *Journal of Cancer Survivorship* 10 (3): 564-572, 2016.
- [46] Zamanzadeh V, Valizadeh L, Rahmani A, Zirak M, Desiron H. Cancer survivors' experiences of return to work: A qualitative study. *Psychooncology* 27(10): 2398-2404, 2018.
- [47] Bouknight RR, Bradley CJ, Luo Z. Correlates of return to work for breast cancer survivors. *Journal of Clinical Oncology* 24(3): 345-353, 2006.
- [48] <https://iosh.com/media/1542/return-to-work-after-cancer-full-report.pdf>. Crawford JO, Davis A, Sleeuwenhoek A, et al. Occupational safety and health considerations of returning to work after cancer: Report submitted to the IOSH research committee. 2017. (Accessed March, 28, 2023).