



Workplace support for employees with cancer

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ABSTRACT

Objective

The aim of the present study was to survey human resources personnel about how their northeastern Ontario workplaces assist employees with cancer.

Study Design and Setting

This cross-sectional study was conducted from December 2007 to April 2008. Surveys were sent to 255 workplaces in northeastern Ontario with 25 or more employees, and 101 workplaces responded (39.6% response rate). Logistic regression modelling was used to identify factors associated with more or less workplace support. More or less workplace support was defined by provision of paid time to employees with medical appointments *and* an offer of a return-to-work meeting *and* reduced hours for employees with cancer. Factors considered in the model included organization size, geographic location (urban, rural), and workplace type (private sector, public sector).

Results

Most of the human resources staff who completed the surveys were women (67.4%), and respondents ranged in age from 25 to 70 years (mean: 45.30 ± 8.10 years). Respondents reported working for organizations that ranged in size from 25 to more than 9000 employees. In the logistic regression model, large organization size [odds ratio (OR): 6.97; 95% confidence interval (CI): 1.34 to 36.2] and public sector (OR: 4.98; 95% CI: 1.16 to 21.3) were associated with employer assistance. Public sector employers provided assistance at a rate 5 times that of private sector employers, and large organizations (>50 employees) provided assistance at a rate 7 times that of smaller organizations.

Conclusions

In the population studied, employees with cancer benefit from working in larger and public sector organizations.

The data suggest a need for further support for employees with cancer in some other organizations.

KEY WORDS

Workplace support, return to work, employees with cancer, employer assistance

1. INTRODUCTION

Cancer has a substantial effect on health status, depression, and overall quality of life¹⁻⁵. As early detection and more effective interventions emerge, the prevalence of cancer survivors in the population continues to increase⁶. Many cancer patients resume their activities of daily living shortly after treatment. Cancer is not only an issue for the individuals and their families, but also an important issue for employers and the workplace⁷. Canadian workplaces need to be aware of health and safety legislation⁸ and the legal rights of workers.

Therapeutic approaches have increased not only cancer survivorship, but also the ability of affected people to work during and after treatment. However, the effect that both diagnosis and treatment have on the ability of cancer survivors to fully engage in paid work is not yet entirely understood⁹. In 2004, a population-based investigation in the United States reported that, as compared with healthy controls matched on sex, age, and educational attainment, survivors had worse outcomes across all measures of burden, including work¹⁰. Since 2000, two reviews of research related to the workplace and cancer have been published^{11,12}. A dearth of evidence on the effect of cancer on workplace outcomes was noted. Furthermore, more research was recommended to assess the disease-, person-, and work-related factors and the associated relationships that may have an effect on work life and return to work¹³. Recent studies have focused on the effects of cancer on employment¹¹.

Cancer is a public health concern that will increase in importance over the next 10 years as treatments become more successful and as the population ages¹⁴. The employment status of cancer patients

and survivors has important implications for society and the labour market, for organizations, for the individuals affected, and for their economic, social, and psychological health¹⁵. Data suggest that, in Canada, approximately 62%–84% of cancer survivors return to work after treatment; similar patterns are found in the United States and Europe^{16–19}. However, very little is known about specific psychosocial factors, affective continuance, and return to work⁶.

Work is important for an individual's identity and provides a social connection; it also presents a distraction and enables the person to regain a sense of normality and control²⁰. Return to work after a critical illness such as cancer is an important area of study. First, returning to or maintaining employment after cancer is important for a person's quality of life, including physical and mental health²¹. Earnings from employment are necessary to meet basic needs and to facilitate a return to usual life activities¹⁹. Moreover, for many women, returning to work after a cancer diagnosis is an important measure of recovery from, and control of, the disease^{8,22–25}. Second, although legislation in Canada (the Employment Equity Act, 1995) protects workers against discrimination on the basis of handicap or health state, cancer survivors in the United States and Canada have reported experiencing problems in the workplace after returning to work^{17,26}. Problems noted have included hostility, discrimination, decreased wages, and difficulty obtaining a new job^{17,26}. Returning to work serves as a positive step toward the future by providing social and financial support to employees with cancer^{22,25,27}. Cancer patients able to fulfil social and occupational roles while undergoing active cancer treatment consider themselves to be healthy²⁴.

Previous studies conducted in people treated for various types of cancer have reported a variety of problems at work, including job loss^{25,28,29}, undesired changes in work situation^{21,25,28–30}, problems with co-workers^{21,25,28,30,31}, and diminished work capacity^{18,22,28}. The research has typically focused on employability statistics, adopting a health economics perspective^{32,33}. Currently, the focus has turned toward the employment outcomes of cancer survivors³⁴. Furthermore, studies have identified that, although 1 in 5 cancer survivors reported cancer-related disabilities at follow-up by telephone interview from four medical centers in Maryland and Pennsylvania, half continued to work³⁴.

The challenges and consequences of cancer and its treatment approaches are likely to affect, in many ways, an individual's ability to work. These challenges and consequences include physical factors related to the disease such as disfigurement or pain following surgery^{33,35}, fatigue¹¹, and decreased cognitive functioning^{36,37}. A Fatigue Coalition study conducted telephone interviews with 379 randomly selected participants with a previous history of cancer in the United States. Of the 177 who were working,

75% had made changes in their employment status as a result of fatigue, 71% had missed 1 or more days of work per week, 34% had reduced their hours or accepted fewer responsibilities, 23% had gone on disability, and 28% had stopped working^{38–40}. Many of these side effects and consequences of cancer and associated interventions may be enduring and may last for many years post treatment. Many of these factors are also seen in other chronic illnesses⁴¹.

Most studies that address cancer and work outcomes have focused on the likelihood and timeliness of work return⁴². A recent literature review by Spelten *et al.*¹¹ summarized fourteen studies and identified several features of the cancer, the job, and the person that influence work outcomes. Those authors also highlighted the methodologic and conceptual limitations of the research to date. In particular, the examined studies did not use similar measures of work return, were often methodologically weak, and tended to study highly selected samples of cancer survivors with specific cancer sites⁴².

Previous studies have shown that the ability of cancer survivors to continue employment with employer support in the workplace appears optimistic⁴³. Research conducted using telephone interviews (participants were interviewed by telephone 12 and 18 months after diagnosis) of women with breast cancer from the Metropolitan Detroit Cancer Surveillance System revealed that 80% had returned to work during a period of 18 months after their cancer diagnosis⁴⁴. As compared with women never diagnosed with cancer, survivors were slightly more likely not to be working 3 years after diagnosis¹². However, in a cross-sectional mailed survey about the effect of illness on their vocational status, answered by 378 women who had survived breast cancer without recurrence for at least 2 years, more than 40% said that cancer had altered their priorities or their progress at work⁴⁵.

Currently, a full understanding has not been achieved concerning how cancer patients perceive their ability to work or the adjustments that are required to facilitate work during and following treatment. Studies that have attempted to address these concerns continue to be hampered by small sample sizes and a lack of control for cancer site. In-depth studies have largely been restricted to clinical case studies and qualitative research¹⁶.

Serious illness in the workplace raises complicated issues for employers, including right to privacy, concerns of fellow workers, and accommodation and productivity. As the number of cancer survivors increases, empirical data on their work experience is growing. Quantitative studies using questionnaires have suggested that a change of job or employer, early retirement, unemployment, and lowered income are common among cancer patients^{19,46}. Qualitative studies have indicated that women with breast cancer returning to work experience physical fatigue,

demotion, conflict with employers and co-workers, personal changes in attitude toward their job, and unwanted job responsibilities^{17,47}. Little information is available about the employment changes of cancer patients and the factors related to those changes⁴⁸. Although studies have been conducted regarding social support for cancer patients (mostly using qualitative methodology), the importance of support from work life is unclear.

Cancer places major social, economic, and psychological burdens on individuals and their relationships (personal and professional). Research indicates that there is very little evidence concerning how employers assist employees with cancer.

2. STUDY DESIGN AND SETTING

Our study used a non-experimental, cross-sectional survey design. Human resources personnel in workplaces with at least 25 employees in northeastern Ontario were invited to participate in the study. A total of 255 paper questionnaires were mailed to human resources personnel at Ontario businesses listed in the Canadian Business Directory. An online version of the questionnaire was also made available. A reminder letter was mailed 2 weeks after the initial study package, and additional follow-up consisted of telephone calls at 4 weeks and 6 weeks after the first mailing. At week 8, a reminder e-mail message was sent to workplaces that had not replied.

In total, 101 responses to the survey were received (39.6% response rate), either online or in paper form.

2.1 Measures

2.1.1 Employer Assistance

Employer assistance was defined as paid time for medical appointments, *and* an offer of a return-to-work meeting, *and* reduced hours for employees with cancer. Evidence has shown that paid time for medical appointments is associated with return to work for employees with cancer⁹. A return-to-work meeting showed significance ($p = 0.006$) in a Fisher exact two-tailed test analysis.

2.1.2 Number of Employees in the Organization

Respondents were asked to report the number of employees at their organization. This variable was partitioned into two categories: 25–49 employees and 50 or more employees. The data were divided this way because the division allowed for half the sample to be represented in each category.

2.1.3 Urban or Rural Centre

We separated the communities of northeastern Ontario into urban and rural categories. “Urban” was defined as a centre with 10,000 or more people, and “rural” was defined as a center with fewer than 10,000 people^{49,50}. Populations for the communities were

obtained from Statistics Canada community profiles for 2006.

2.1.4 Private and Public Sectors

Employers were separated into public and private sector categories based on participant responses. “Private sector” included manufacturing, insurance, and retail businesses. “Public sector” included governmental bodies, education boards, and non-profit organizations.

2.1.5 Types of Accommodations

The “job sharing” classification included the sharing or division of job duties and responsibilities of an employee with cancer, and “reduction in hours worked” encapsulated a reduction in the number of hours worked by the employee with cancer. “Telecommuting” was classified as working from home and is part of teleworking (home and regional centres are the two main types of telecommuting). “Additional breaks or rest periods” was defined as provision of breaks as needed by employees in addition to the breaks normally scheduled during a typical work period. “Adjustments in the physical environment” was identified as employer-supported modifications to the physical setting of an employee’s workspace, such as ergonomic office assessment or job-site analysis. Other accommodations were “paid time for medical appointments” and offer of a “return-to-work meeting”—an organized meeting with a return-to-work representative, the employer, and the employee with cancer.

2.1.6 Employer’s Perspective

“Employees’ work responsibilities” was based on the opinion of the responding human resources professional regarding whether employees with cancer can fulfil their work responsibilities and deal with their illness at the same time. “Tracking of employees with cancer” was defined as whether an organization officially tracks the number of employees with cancer or those that return to work after treatment.

3. RESULTS

3.1 Characteristics of the Study Population

Descriptive and univariate analyses were conducted to describe the characteristics of the participants. Of the 101 responses, 41 consisted of paper questionnaires, and 60, of questionnaires completed online. Most of the human resources staff who completed the surveys were women (67.4%), and respondents ranged in age from 25 to 70 years (mean: 45.30 ± 8.10 years). Respondents reported working for organizations that ranged in size from 25 to more than 9000 employees. The human resources directors had, on average, 11 years of experience (mean: 11.31 ± 8.31 years). With regard to type of workplace, 65.3% of respondents ($n = 101$) were reporting on manufacturing

workplaces, and 11.9%, on other areas of the private sector. Conversely, 15.8% of respondents indicated that they were reporting for a public sector workplace; 6.93% classified their workplace as “Other.” Table I provides details the characteristics of the respondents and the workplaces.

3.2 Factors Relating to How Employers Assist Employees with Cancer

The factors associated with employer assistance to employees with cancer were subjected to univariate and multivariate logistic regression analyses. The predictor variables in the logistic model included the number of employees in an organization, the setting (urban or rural) of an organization, and the sector (private or public) represented by an organization (see Table II).

When paid time for medical appointments, reduction in work hours, and provision of a return-to-work meeting were considered, employers with more than 50 workers [odds ratio (OR): 6.97; 95% confidence interval (CI): 1.34 to 36.2] and employers in the public sector were significant (OR: 4.98; 95% CI: 1.16 to 21.3).

TABLE I Demographics of study participants

| Characteristic | Total ^a (n=92) | Men (n=30) | Women (n=62) |
|--------------------------------|------------------------------|---------------|-----------------|
| Age | | | |
| <35 years | 9.8 | 10.0 | 9.7 |
| 36–45 years | 37.0 | 16.7 | 46.8 |
| 46–55 years | 33.7 | 46.7 | 27.4 |
| ≥56 years | 19.6 | 26.7 | 16.1 |
| Years of experience in HR | | | |
| ≤10 years | 54.3 | 46.7 | 58.1 |
| 11–20 years | 30.4 | 26.7 | 32.3 |
| >20 years | 15.2 | 26.6 | 9.7 |
| Size of workforce | | | |
| 25–50 employees | 50.0 | 60.0 | 45.2 |
| ≥51 employees | 50.0 | 40.0 | 54.8 |
| Type of workplace ^b | | | |
| Manufacturing | 64.1 | 76.7 | 58.1 |
| Private sector | 12.0 | 10.0 | 12.9 |
| Public sector | 15.2 | 6.7 | 19.4 |
| Non-profit organization | 2.2 | 0 | 3.2 |
| Other | 6.5 | 6.7 | 6.5 |

^a Responses numbered 92 because of missing values.

^b Examples of workplace by category: Manufacturing—automobile, steel; Private sector—information technology, retail; Public sector—government, education; Non-profit organization—YMCA, Salvation Army.

HR = human resources.

4. DISCUSSION

The purpose of the present study was to increase understanding of how employers assist employees with cancer. The ramifications of cancer are not confined to the workplace; they are widespread, affecting personal and professional relationships alike⁵¹. Moreover, cancer affects a worker’s physical and mental well-being and cognitive functioning^{11,19,33,35–37,52}. It is important that workers with cancer and their employers are aware of the effect that the symptoms of cancer and that cancer treatment have on the employee, and that they discuss the resulting changes to the work and the job requirements.

In examining organizations that offered accommodations to employees with cancer (those reported to be significant), public sector employers offered assistance in greater proportion. Our finding concerning paid time for medical appointments accords with the 2007 study by Pryce *et al.*⁹ in that such time is a significant factor in predicting return to work after cancer. In terms of organization size, organizations with more than 50 employees provided more assistance in certain areas—for example, a return-to-work meeting, paid time for medical appointments, and reduction in work hours—than did smaller businesses. That finding may not be surprising, given that larger employers have greater access to financial and other types of resources. It is encouraging that employers are offering resources and assistances to their employees, but a greater emphasis should be placed on identifying the services that are requested by or essential to employees with cancer. Such identification is challenged by the individualistic nature of the disease (for example, no two people are alike, and neither are their cancer outcomes) and the consequences for both the employer and the employee.

4.1 Limitations and Potential Biases

Our research has some limitations. At 39.6%, the survey response rate was lower than expected, despite the systematic follow-up procedures: that is, the reminder letter, the two reminder telephone calls, and the two e-mail messages. The response rate was comparable to that in the employee survey by Pryce *et al.*⁹ of factors related to return to work. More responses

TABLE II Adjusted odds ratio estimates and approximate 95% confidence intervals (CI) for employer assistance of employees with cancer (*n* = 100)

| Characteristic | Odds ratio | 95% CI |
|---|------------|---------------|
| Number of employees ^a | 6.97 | 1.34 to 36.21 |
| Private versus public sector ^a | 4.98 | 1.16 to 21.3 |
| Urban versus rural | 5.05 | 0.91 to 28.00 |

^a *p* < 0.05 (overall logistic regression based on all predictor variables).

were provided online because the questionnaire was readily available to late responders or to those who no longer had a paper copy.

Response rates likely depend more on the population sampled than on any other factor⁵³. Standardized questionnaires delivered online and on paper have produced mixed results⁵⁴. However, considering that the study offered participants no remuneration, obtaining a higher response rate becomes highly challenging. Compensating the participants may have increased the number of participants in the present study. The human resources professionals may have been too preoccupied with work responsibilities to participate in the study. Research has shown that a low response rate alone does not necessarily indicate bias. When participant characteristics are representative of non-responders, low return rates are not biasing^{55,56}. However, the response rate achieved here limits both the internal and external validity of the study.

Our study used a quantitative approach ultimately to describe how employers on a large scale are offering assistance to their workers with cancer. Almost half the employers did not believe that employees could manage their work responsibilities simultaneously with their illness. Some employers may perceive that employee limitations are more significant than those limitations are in reality; others may perceive that employees can work harder than those employees can work in reality. Nearly half the employers (47.5%) believed that employees with cancer could simultaneously fulfil their work obligations and manage their illness. Some employers may view worker limitations as more significant than they actually are. Conversely, other employers may minimize the effect of an employee's illness and have higher expectations. These expectations can have a serious effect on the individual's work performance and professional relationships—not only with the employer, but also with coworkers.

The representativeness of cases in this study is of potential concern. The sample population was confined to northeastern Ontario. Therefore, the results cannot be generalized beyond northeastern Ontario. Secondly, participants were selected from the Canadian Business Directory. Not all northeastern Ontario businesses are listed in the directory. Furthermore, 15 study packages were returned because they were undeliverable—for example, for not having the current address of the business. Also, questionnaire respondents may be more motivated, interested, or inclined to help with the study than non-respondents are. In Canada, 75% of human resource specialists are female⁵⁷, and our sample may be an adequate representation of this group. Most of the respondents (67.4%) to our survey were women, which may suggest that women respondents were underrepresented in our sample. Older participants constituted a greater proportion of the sample (19.6%) than appears in the larger group of human resource specialists as reported

by Service Canada⁵⁷. This finding could indicate that an important group (younger respondents) is being underrepresented, and another (older respondents) is being overrepresented. Finally, the study surveyed organizations with 25 or more employees, thus excluding the responses of smaller organizations.

4.2 Future Research

The low response rate may suggest that a qualitative approach with emphasis on focus groups and key informant interviews may be beneficial in identifying themes important to the question of how employers help their employees. The interrelated nature of cancer-related factors and their effect on return to work makes it challenging to identify potential relationships with the outcome measure¹¹.

Numerous studies have shown that, as compared with a cancer-free population, cancer survivors have a lower probability of being employed⁵¹. Pryce *et al.*⁹ suggest further research to examine and understand psychosocial predictors related to work. It is plausible that some of these factors may be related to how employers offer assistance during this tumultuous period in the employee's personal and professional life. It would be beneficial to understand the relationship between employer support and return to work and the effect of employer support on workload, on support for colleagues of employees with cancer, and on productivity. Qualitative studies could also use narratives and focus groups to identify themes within the organization at various corporate levels. Conversely, further quantitative studies could target human resource professionals in other jurisdictions or use a larger sample size to possibly validate the results of the present study. A mixed-methods approach may be beneficial in combining a survey sent to employers with interviews.

Given the hierarchical nature of businesses, future research could use a hierarchical approach to further examine the views both of employers and of employees within an organization from a particular region⁵⁸. In organizational studies, investigators might examine how workplace characteristics such as providing additional supports and resources (for example, paid time for medical appointments, reduction in work hours, and a return-to-work meeting) influence productivity of employees with cancer⁵⁹. Employees and organizations are both units in the analysis: variables are measured at both levels. As a result, the data has a hierarchical structure, with individual workers nested within workplaces. Hierarchical linear modelling has been used in public health, psychology, and education to tackle some common problems associated with multilevel data, thus advancing the understanding of the dynamic inner workings of organizations⁵⁸. Independent of the methodologic approach used, researchers need to examine the interaction between the many factors

involved in the return-to-work process. Investigators should examine the importance of workplace supports for cancer survivors and those dealing with their illness while working.

4.3 Implications of Research for Stakeholders

Too few employers are providing sufficient support and information to employees affected by cancer. The present study showed that only a small proportion of employers have either a specific policy on managing cancer in the workplace or a generic policy on critical illness. Policies are not a universal solution to this complex problem. However, they can set out clearly for employers and employees at all levels the resources and support available within an organization and can help to ensure that individuals affected by illness are managed in a consistent manner. As well, employers should officially track the number of employees with cancer to be able to deliver services in a timely and appropriate manner and to gauge the demand for those services in the workplace.

As several respondents stated, cancer in the workplace is a sensitive, personal, and individualized issue for employees. Furthermore, its implications are widespread and often involve employers, colleagues, co-workers, and personal relationships with family and friends. During a period of great uncertainty, change and conflicting emotional approaches to an issue that is not standard, employers can provide a wealth of resources and become a beacon of stability to employees with cancer. Concurrently, employers are in an ideal position to facilitate flexibility and an understanding of employees' apprehensions or concerns regarding their ability to return to work, because a decrease in wages can pose a significant financial burden. Equally important is the implementation of a cancer policy that is relevant and available to employees. Our study indicates that this area appears to be one in which organizations may need to invest more resources.

The present research has the potential to offer important information to four different groups. First, clinicians from primary to tertiary care may be able to use the results of this study to enhance the level of care they provide to patients. They may also use the findings to develop better relationships that foster timely communication with the employee's workplace. Research has shown that, the greater the level of involvement of health care professionals in the return-to-work process, the more likely it is that the employee will return to work sooner.

Second, this novel and under-investigated research topic deserves increased attention from researchers. It is especially relevant when considering the pervasiveness of cancer in Canadian society. Some research has emerged from the United States and the United Kingdom, but very little Canadian literature addresses this topic.

Third, for human resources professionals and employers, this research may help in raising some of the issues that are important to them in dealing with an employee with cancer.

Finally, although employees were not directly involved in the study, we believe that they could reach a greater understanding of the employer's role in the process and the factors that affect their chances to resume their occupation.

5. CONCLUSIONS

The present study highlights the importance of cancer management for employers and their employees. Additional research may indicate that when work adjustments are tailored to meet the needs of employees with cancer, those employees are most likely to continue working or to return to work. That understanding may be part of future research that allows for a deeper level of collaboration between all stakeholders.

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