



Return to Work of Cancer Survivors: Predicting Healthcare Professionals' Assumed Role Responsibility

Dana Yagil¹ · Nofar Eshed-Lavi¹ · Rafi Carel¹ · Miri Cohen¹

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Abstract

Purpose Returning to work is highly beneficial for many cancer survivors. While research has documented the significance of healthcare professionals in the process of return to work (RTW), very little is known about those professionals' views regarding their responsibility for RTW. The purpose of the present study was to identify factors that predict the extent to which healthcare professionals view involvement in the RTW of cancer survivors as part of their role. **Methods** In a cross-sectional design, questionnaires measuring attitudes regarding personal role responsibility for RTW, team role responsibility for RTW and benefits of RTW were administered to 157 healthcare professionals who care for working-age cancer survivors: oncologists, occupational physicians, family physicians, oncology nurses, oncology social workers, and psychologists. **Results** Both belief in the benefits of RTW, and the view that RTW is the team responsibility of healthcare professionals working with cancer survivors, are positively related to viewing RTW as part of the responsibilities of one's personal professional role. Moderation analysis indicated that perception of team responsibility for RTW moderates the effect of the perceived benefits of RTW, such that the perception of benefits is significantly associated with personal role responsibility only when there is a low level of perceived team responsibility. **Conclusions** Issues related to RTW should be routinely included in basic and advanced training of healthcare professionals involved in the treatment of working-age cancer survivors, to increase awareness of this aspect of cancer survivors' well-being and position RTW as part of healthcare professionals' role responsibilities.

Keywords Healthcare professionals · Cancer survivors · Return to work · Role responsibility · Team

Introduction

Work is important for cancer survivors as it enhances their financial security, identity, self-esteem, and social relationships [e.g., 1, 2]. Employment status is also related to better recovery from illness [3]. Cancer survivors interact with multiple healthcare professionals specializing in different areas of physical or mental health who can potentially contribute to their return to work (RTW) [4, 5]. Healthcare professionals can support the process of RTW by providing relevant information about expected effects of the cancer survivors' medical condition on their functioning at work, discussing pros and cons of RTW and helping with the processing of difficult emotions [6–8].

However, healthcare professionals might not define involvement in the RTW of cancer survivors as a significant part of their job. Due to the acute, sometimes life-threatening nature of cancer and the multiple psychological and social issues that accompany the illness [9–11], RTW might take a back seat to other issues, as healthcare professionals might view it as secondary to those other, more burning concerns [12, 13]. For example, oncologists might view themselves as primarily responsible for health issues that take priority over RTW. Oncology social workers and psychologists also address multiple pressing issues associated with illness-related distress, depression, reduced self-image, or functioning in the family [9, 14], which might be viewed as more important than work-related issues. Occupational physicians, who formally address health issues related to the workplace, treat many patients who are not cancer survivors and are involved in multiple environmental issues in the workplace itself [15]. In addition, the heavy workloads of healthcare professionals might contribute to a reluctance to assume responsibility for issues that are not part of their

✉ Dana Yagil
dyagil@research.haifa.ac.il

¹ Faculty Social Welfare and Health Sciences, University of Haifa, Mount Carmel, 31905 Haifa, Israel

formally perceived roles. For example, in a study conducted in Norway, general practitioners were found to be unwilling to assume responsibility for follow-up care of cancer patients, due to the prospect of increased workload [16].

Role-responsibility refers to the duties attached to people by virtue of their professional, institutional, social, or moral positions [17]. For example, an exploratory study [12] found that physicians do not view RTW as their responsibility. The way that professionals view their role identity is central to how they interpret and act in work situations [18]. Understanding the variables associated with healthcare professionals' view of involvement in cancer survivors' RTW—whether or not they consider it to be part of their role and to what extent—is important because those views might determine multiple significant behaviors related to cancer survivors' RTW. For example, the extent to which RTW is perceived to be part of one's role might affect a healthcare professional's motivation to engage in activities such as bringing up the issue of RTW, considering the impact of various medical treatments on ability to RTW, allocating time to discuss RTW with cancer survivors, or communicating with other healthcare professionals regarding RTW. These aspects of healthcare-professional performance might have a significant effect on cancer survivors and their successful RTW during treatment and after recovery [6, 7, 19].

Previous research has suggested that healthcare professionals' functioning with regard to cancer survivors' RTW is sometimes insufficient [20] and highlighted issues related to available information and collaboration among health professionals. Based on the notion of role responsibility [17] and its impact on interpretation of work situations [18], as well as initial findings regarding physicians' view of RTW in terms of role responsibility [12], we suggest that healthcare professionals' view of RTW as part of their professional role is an additional factor which might significantly affect the extent and quality of involvement in RTW. If healthcare professionals believe that involvement in issues of RTW is not part of their role, their involvement in this area might be inadequate.

Previous research has explored healthcare professionals' shared responsibility with cancer survivors regarding treatment options [21]. However, to the best of our knowledge, professionals' view of RTW as a role responsibility was explored only in one qualitative study [12] that included only a small number of respondents ($N=10$) who were all physicians.

The purpose of the present study is to identify factors that predict the extent to which the variety of healthcare professionals working with cancer survivors view involvement in RTW as part of their professional role. In this study, we explored three potential predictors of perceived role responsibility: (1) the extent to which individual healthcare professionals view professionals working with cancer survivors

(i.e., oncologists, family physicians, occupational physicians, nurses, social workers and psychologists) as responsible for RTW; (2) the extent to which RTW is thought to be beneficial for cancer survivors; and (3) the specific profession.

Method

Participants and Procedure

The sample consisted of 157 healthcare professionals specializing in physical or mental health who work with working-age cancer survivors. Letters presenting the study and asking for participation were disseminated among members of Israeli professional associations of physicians (targeting oncologists, occupational physicians, and family physicians), oncology nurses and oncology social workers and psychologists. A link to a questionnaire composed using the Qualtrics program (Provo, UT, USA; 2017) was sent along with the letter.

Data collection lasted for about 3 months. The sample reflects various types of professionals providing care to cancer survivors: occupational physicians (23 senior physicians and 3 interns), oncologists (13 senior oncologists and 5 interns), oncology nurses ($N=41$), social workers ($N=30$), psychologists ($N=22$) specializing in psycho-oncology, and family physicians ($N=20$).

Eighty percent of the respondents were women: 61% of physicians and 91% of social workers, psychologists and nurses, as in Israel, mostly women occupy the latter professions. The mean age of the respondents was 47.86 ($SD=11.80$) and the respondents had an average of 18.87 ($SD=3.06$) years of education. The participants had worked at their respective occupations for an average of 16.62 years ($SD=14.79$). The respondents worked in public hospitals (41%), for community health services, (40%) and in private clinics (3%). 16% of the participants worked in both hospitals and clinics or in other types of health organizations (e.g., non-profit organizations, a military health unit). One-way analysis of variance was conducted to check for possible differences among professions in terms of the following demographic variables: age, education and tenure. The results indicated that there were no significant differences between the groups in terms of those variables.

Measures

To the best of our knowledge, no previous research has examined the variables explored in the present study. Accordingly, we developed the RTW Role Responsibility Questionnaire in accordance with suggested guidelines [22]. Following theoretical conceptualization and in-depth

interviews with health professionals, a pool of items was created by extracting items from the transcribed interviews using the following procedure: MC, NEL and DY independently read the interviews, extracted all phrases that could be transformed into relevant questionnaire items and categorized them. Then, each researcher commented on the other researchers' lists. This process was repeated several times as we added, subtracted and rephrased unclear items and reorganized categories, until agreement was reached regarding the list of items. During this process, the researchers constantly re-read the interviews to validate the association of the extracted items with interviews' content.

Once that process was completed, we conducted an exploratory factor analysis with varimax rotation with all 16 items. The criteria for factor analysis were met [Kaiser–Meyer–Olkin value was 0.87 and Bartlett's test of sphericity yielded a value of 1469.48 ($df=120$), $p<.01$]. The analysis revealed four factors that together explained 71.27%

of the observed variance. The first factor, explaining 28.58% of the variance, addresses healthcare professionals' view of the benefits of RTW. The second factor, explaining 17.47% of the variance, addresses healthcare professionals' view of their personal responsibility for RTW. The third factor, explaining 14.81% of the variance, addresses the view that RTW in a team responsibility of social workers, psychologists and nurses working with cancer survivors. The fourth factor, explaining 10.42% of the variance, addresses the view that RTW in a team responsibility of physicians working with cancer survivors. The factor loadings of the items and Cronbach's alpha coefficients are presented in Table 1. The final scale consisted of 15 items because one item that had a high loading on two factors was excluded. The excluded item measured perceived responsibility of family physicians for RTW of cancer survivors.

We used the following scales (all items are presented in Table 1):

Table 1 Principle-components analysis: factor loadings of items

Questionnaire item ^a	Factor 1: Benefits of RTW	Factor 2: Personal role responsibility for RTW	Factor 3: Team role responsibility- social workers, nurses, psychologists	Factor 4: Team role responsibility- physicians
RTW contributes to mental health (3)	0.90	0.18	0.10	0.08
RTW is important for a sense of efficacy and autonomy (3)	0.87	0.20	0.16	0.10
RTW is an important part of the rehabilitation process (3)	0.85	0.28	0.18	0.06
RTW facilitates coping with cancer (3)	0.83	0.15	0.19	0.11
RTW constitutes a return to normalcy (3)	0.82	0.22	0.07	0.13
RTW might contribute to physical healing (3)	0.75	0.00	0.23	0.03
Involvement in RTW of cancer survivors as a professional priorities (1)	0.23	0.88	0.09	0.13
Involvement in the RTW of cancer survivors as part of the job or profession (1)	0.19	0.82	0.12	0.10
Important of professional expertise in decision-making regarding the RTW of cancer survivors (1)	0.11	0.77	0.07	0.27
Willingness to dedicate more time to issues of RTW (1)	0.30	0.61	0.37	0.02
RTW-responsibility of social workers (2)	0.22	0.17	0.78	0.01
RTW-responsibility of psychologists (2)	0.23	0.24	0.77	0.12
RTW-responsibility of nurses (2)	0.16	0.03	0.69	0.24
RTW-responsibility of occupational physicians (2)	0.14	0.10	0.05	0.77
RTW-responsibility of oncologists (2)	0.09	0.26	0.20	0.71
RTW-responsibility of family physicians (2)	0.05	0.06	0.56	0.59
% Variance explained	28.58	17.46	14.81	10.42
Cronbach's alpha coefficient	0.92	0.85	0.73	0.53

Loadings of .40 or higher are marked in bold

^aThe numbers in parentheses indicate the scale to which each item belongs

1. *Personal role responsibility for RTW* was measured with four items that address healthcare professionals' view of the centrality of RTW in their role. The scale items assessed respondents' current level of involvement in RTW, their wish to be involved in RTW and their belief that RTW is part of their role: "How high is involvement in RTW of cancer survivors among your professional priorities?"; "In your view, to what extent is involvement in the RTW of cancer survivors part of your job or profession?"; "How important is your professional expertise in decision-making regarding the RTW of cancer survivors?"; "If you had more time to attend to cancer survivors, to what extent would you like to dedicate time to issues of RTW?" Responses were given on a 7-point scale (1 = *not at all* to 7 = *very much*).
2. *Team role responsibility for RTW* was measured by asking participants to evaluate the responsibility for RTW of healthcare professionals specializing in various areas. The following question was presented: "In your view, how responsible are healthcare professionals in each of the following areas for the RTW of cancer survivors?" Respondents then rated each profession on a 7-point scale (1 = *not at all* to 7 = *very much*). To avoid inflated correlations between the variable measuring team responsibility and the measure of personal role responsibility, team responsibility was calculated for each respondent without the response addressing the respondent's own occupation (e.g., for social workers, the variable represents the perceived role responsibilities of all healthcare professionals except social workers). Analyses conducted with a variable that included the respondent's own profession revealed similar results.
3. *Perceived beneficial impact of RTW* was measured with six items designed to assess healthcare professionals' view of the benefits of RTW, by addressing various potential contributions of RTW to cancer survivors' physical and mental well-being, and its importance for the rehabilitation process: "RTW contributes to mental health"; "RTW is important for a sense of efficacy and autonomy"; "RTW is an important part of the rehabilitation process"; "RTW facilitates coping with cancer"; "RTW constitutes a return to normalcy"; "RTW might contribute to physical healing." Respondents rated their agreement with the phrases on a 7-point scale (1 = *do not agree at all* to 7 = *completely agree*).

To gather further evidence for the internal consistency of the scales, Cronbach's alpha coefficients were computed for the scale scores for each of the three groups of participants, with similar numbers of participants in each group: physicians ($N=64$), nurses ($N=41$) and social workers together with psychologists ($N=52$). The purpose of this analysis was to check whether internal consistency differed across

informant groups. The results showed that all of the alpha values were above the required level of 0.70 [23], except for the alpha coefficient for personal responsibility among social workers and psychologists, which was somewhat lower (Cronbach's alpha coefficient = 0.64).

Ethics

The study was approved by the University of Haifa's Faculty of Social Welfare and Health Sciences Research Ethics Committee (No. 279/17). Participants were informed in advance that their participation was strictly voluntary and that all information provided would remain confidential. Participants signed an informed consent electronically, only those who consented to participate were able to access a designated website. Participants had the option not to respond to any part of the questionnaire, and could discontinue participation at any point.

Results

Differences Between Professional Groups

To explore differences between professionals in various areas, we conducted one-way analyses of variance with profession as the independent variable and the research variables as the dependent variables. Post-hoc Scheffe tests were conducted to detect the source of the differences. The means and standard deviations of the variables for each occupational group are presented in Table 2.

The results show significant differences in perception of RTW as part of the professional role. Post-hoc Scheffe tests indicated that the occupational physicians differed from all of the other groups ($p < .000$ to $p = .05$). The data indicate that occupational physicians perceived RTW as part of their role more than the other healthcare professionals, as shown in Table 2. A significant difference between professionals was also found with regard to belief in team role responsibility. Scheffe tests indicated that in this area there were significant differences between nurses and oncologists ($p < .05$) and between nurses and psychologists ($p < .05$). The mean values presented in Table 2 show that the nurses believed in team responsibility for RTW more than the other professionals did.

Predictors of Personal Role Responsibility for RTW

To predict whether RTW was perceived as part of one's professional role, we conducted a multiple linear regression analysis (Table 3). Independent variables were entered in three phases to evaluate the separate contributions of different groups of variables. Demographic variables (i.e.,

Table 2 Differences among healthcare professionals

	Occupational physicians (N=26)	Family physicians (N=20)	Oncologists (N=18)	Nurses (N=41)	Social workers (N=30)	Psychologists (N=22)	Total	<i>F</i> (<i>df</i> =5, 156)
Personal role responsibility for RTW	6.42 (0.82)	4.36 (1.10)	4.41 (1.63)	4.67 (1.42)	5.32 (0.94)	5.00 (1.14)	5.06 (1.37)	10.10**
Team role responsibility for RTW	5.35 (0.89)	5.28 (1.14)	4.99 (0.91)	5.86 (0.92)	5.40 (0.60)	5.00 (0.79)	5.29 (0.92)	3.98**
Benefits of RTW	6.31(0.82)	6.14 (0.96)	6.11 (1.00)	6.21 (0.99)	6.07 (0.91)	5.89 (1.03)	6.13 (0.95)	0.55

p* < .05; *p* < .01

Table 3 Regression analysis of the interactive effect of perceived benefits of RTW and team responsibility on viewing RTW as part of one’s professional role

Variable	Phase 1			Phase 2			Phase 3		
	<i>B</i>	<i>SE</i> (<i>B</i>)	β	<i>B</i>	<i>SE</i> (<i>B</i>)	β	<i>B</i>	<i>SE</i> (<i>B</i>)	β
Gender	0.35	0.29	0.10	0.62	0.27	0.18*	0.63	0.26	0.18*
Age	−0.00	0.00	−0.07	−0.00	0.00	−0.02	−0.00	0.00	−0.02
Profession	0.02	0.07	−0.02	0.02	0.07	0.02	0.01	0.06	0.01
Benefits of RTW				0.45	0.11	0.31**	1.47	0.45	1.01**
Team role responsibility ^a				0.36	0.12	0.23**	1.61	0.54	1.08**
Benefits × team responsibility							−0.20	0.09	−1.28*
<i>R</i> ²	0.02			0.21			0.24		
<i>F</i>	0.81			8.08**			7.87**		
ΔR^2	0.02			0.19**			0.03*		

**p* < .05; ** *p* < .01

^aTeam responsibility without self

gender, age and profession) were entered in the first phase and perceived benefits of RTW and team role responsibility were entered in the second phase. The interaction between perceived benefits of RTW and team role responsibility was entered in the third phase. The results of this analysis suggest that perceived benefits of RTW and team responsibility add significantly to the explained variance, beyond the demographic variables, and are both positively related to viewing involvement in RTW as part of one’s role. The interaction term of perceived benefits of RTW and team role responsibility also contributed significantly to the prediction of personal role responsibility. Results of a moderation analysis (conducted using the PROCESS program) are presented in Fig. 1. A significant moderation effect was found ($F(1,152) = 5.7, p < .05$) and the data suggest that the effect of perceived benefits on whether RTW is seen as part of one’s role is significant when the level of perceived team responsibility is low (effect size = 0.5, $SE = 0.11, p < .001, 95\% CI 0.31, 0.78$) or moderate (effect size = 0.4, $SE = 0.11, p < .001, 95\% CI 0.14, 0.58$), but not statistically significant when there is a high level of

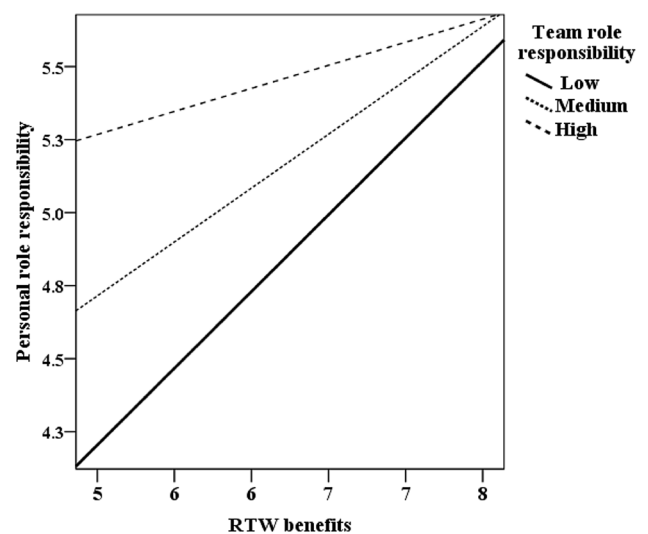


Fig. 1 The effects of perceived benefits of RTW and team role responsibility on personal role responsibility for RTW

perceived team responsibility (effect size = 0.1, SE = 0.16, $p > .051$, 95% CI = -0.15, 0.48).

Discussion

The present study extends previous research on healthcare professionals dealing with the RTW of cancer survivors [5–8, 24] by exploring variables predicting the view of involvement in RTW as an inherent part of the responsibilities of one's professional role. We suggest that this aspect of healthcare professionals' work might contribute to the explanation of the extent and quality of their interaction with cancer survivors and other healthcare professionals with regard to issues related to RTW [20]. Due to the impact of role responsibility on interpretation of work situations [18] and consequent performance, healthcare professionals who believe that RTW is part of their role might be more intensively involved in RTW, support cancer survivors in the process by providing vital information and actively participate in various decisions associated with RTW.

The results show that viewing RTW as part of one's personal role responsibility is positively associated with viewing RTW as part of the role(s) of other professionals working with cancer survivors. This finding can be explained by the literature suggesting that the connection between personal and collective professional identity is the outcome of the subjective meaning the professional attributes to the collective identity [25, 26]. If healthcare professionals believe that work with cancer survivors, regardless of one's specific profession, involves addressing issues of RTW, then they might also be inclined to view RTW as part of their own professional role. Furthermore, as team identity enhances the perception of shared goals [27], individuals who collaborate across professional boundaries view their efforts and the role of the team in the context of the group's shared goals [28].

Interestingly, these results also indicate that the perception that other professionals are responsible for cancer survivors' RTW does not lead to diffusion of responsibility. Research implies that the attribution of responsibility to others might reduce the felt need to take personal responsibility [29]. For example, oncologists might claim that occupational therapists are responsible for RTW and that oncologists should be involved only in the clinical aspects of treatment [12]. However, the results of the present study imply that while different healthcare professionals work in different areas, working with cancer survivors might engender a common ground and a shared identity that transcends one's specific professional area [30] thereby mitigating any diffusion of responsibility.

The results of the factor analysis indicate that social workers, nurses and psychologists are differentiated from physicians in terms of perceived responsibility for RTW.

A recent study [8] suggests that indeed social workers and psychologists share a similar view regarding their role in the RTW of cancer survivors, e.g., to jointly discuss options and implications of RTW with the cancer survivor.

Regarding the perceived benefits of RTW, research suggests that health professionals might have reservations, reflected in a view that RTW interferes with the process of recovery by putting too many demands on cancer survivors [12] or in emphasizing side effects and post-treatment symptoms that engender work difficulties [31]. Yet, health professionals also express a positive view of RTW, maintaining that it contributes to cancer survivors' quality of life [8, 19]. The results of the present study show that the relationship between the perceived benefits of RTW and the perception that responsibility for RTW is part of one's professional role is stronger when team responsibility for RTW is low than when it is high. This finding can be explained by research that has shown that perceptions of professional identity are deeply rooted [18]. Thus, when there is a high level of perceived team responsibility, the professional's personal beliefs regarding the costs and benefits of RTW become less relevant, because the notion that RTW is part of the professional role is assimilated into personal role responsibility. Consequently, involvement in RTW depends less on each professional's individual assessment of the benefits of RTW for cancer survivors. These results support previous findings that indicate that healthcare professionals will provide the treatment that patients request, even when their professional opinion is that the treatment in question is ineffective, if complying with patients' requests is an inherent part of their role identity [32, 33]. On the other hand, when healthcare professionals do not believe that RTW is part of the healthcare professionals' team responsibility, their personal views regarding the benefits of RTW might have a more significant impact on their involvement on RTW.

The results regarding the effect of professional area indicate that occupational physicians view involvement in RTW as one of the responsibilities of their role more than other healthcare professionals do. Attending to issues associated with the workplace is, by definition, part of the role of occupational physicians; Hence in their work with RTW, this aspect of the role is salient for them. No significant differences were found between the other professions, with a mean above the scale center ($M = 5.06$), suggesting that, in general, healthcare professionals tend to view RTW as part of their role.

Practical Implications

The results indicating the positive relationship between personal role responsibility for RTW and the view of healthcare professionals, in general, as responsible for RTW, highlight the importance of discussing RTW in basic education,

ongoing training and professional meetings and conferences of healthcare professionals working with cancer survivors. Routinely including the issue of RTW of cancer survivors in basic and advanced training programs is likely to both increase awareness of this aspect of cancer survivors' well-being and position RTW as part of the role responsibilities of healthcare professionals involved in the treatment of working-age cancer survivors. Efforts to convey the notion that RTW is a professional responsibility of all healthcare professionals working with cancer survivors might be especially important for professionals whose formal role definition does not specifically include involvement in RTW, such as oncologists or nurses. Establishing models of teamwork among healthcare professionals to address RTW might contribute to the success of RTW [34, 35] and convey the message that RTW is part of the role of all healthcare professionals. Furthermore, placing heightened priority on collaboration and interdependence prompts a focus on the team as an influential social category and enhances the salience of interprofessional superordinate identity [36]. Previous research indicates that interprofessional healthcare teams with strong team identity use their diversity to enhance their effectiveness [37].

The results also suggest that in the absence of a view of RTW as an inherent responsibility of healthcare professionals, personal beliefs about the benefits of RTW might determine each professional's inclination to be involved in RTW. Because RTW might seem to be less important than more salient health and social issues [12, 13], the benefits of RTW should be actively "promoted" to increase healthcare professionals' awareness of the potential contribution of RTW to cancer survivors' well-being. The considerable volume of evidence regarding the benefits of RTW for cancer survivors could be conveyed to health professionals at professional meetings. As tenure was found to be positively related to the belief that side effects interfere with RTW [31], information regarding the benefits of RTW might be especially valuable for physicians with high tenure, to enhance a positive view of RTW along with awareness of the difficulties involved in side effects. Healthcare professionals should also receive information regarding the detrimental impact of not returning to work on many aspects of cancer survivors' wellbeing [2].

Strengths, Limitations and Future Research

One strength of this study is the fact that it used data that were collected from a variety of healthcare professionals who treat working-age cancer survivors. However, because the majority of respondents in the sample are experienced in working with cancer survivors, this bias might affect the results. For example, potential differences between professional groups in their view of personal responsibility

for RTW of cancer survivors might be more accentuated among less experienced healthcare professionals due to the stronger impact of initial professional socialization regarding specialization. Additionally, the sample does not allow an exploration the potential impact of workplace on professionals' attitudes, e.g., comparing professionals working in hospitals and in private clinics. In future research, it is desirable to explore the variables with a sample that is more balanced in terms of professional experience and workplaces. The results might be also limited by a self-selection bias, namely that only professionals who view RTW as part of their role, to some degree, may have agreed to participate in the study. The grouping of professionals for the test of internal consistency was based on considerations of sample size required for the analysis and obtaining a similar number of respondents in each group. However, a larger number of each professional group in future research will enable a test of each profession separately.

Another limitation was the study's cross-sectional design, which prevents the determination of causality, that is, whether perceived benefits and team responsibility predict personal role responsibility for RTW or the other way round. In addition, the questionnaire we developed has only been initially validated. While the development of the scales was conducted systematically, the factor analysis corresponds with the intended structure and the reliabilities are high, further research with these scales is required to fully validate our findings. Future studies should also explore cross-cultural differences in the extent to which healthcare professionals view RTW as part of their role. Issues related specifically to healthcare professionals' education, workload and role definitions, as well as general cultural characteristics, such as a collectivistic vs. individualistic orientation, might affect professionals' views regarding responsibility for RTW.

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Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

Ethical Approval All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (5). Participates signed an informed consent electronically, only those who consented to participate were able to access a designated website.

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