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This qualitative study showed that breast cancer specialists have varied perspectives and experiences in supporting their patients' return to work (RTW). Even when they are interested, they have little time to devote to it. They emphasize patients' motivation and fail to identify several RTW barriers, particularly workplace factors that may impede return to work.

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Breast cancer specialists' perspective on their role in their patients' return to work: A qualitative study

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Objectives This study aimed to explore the views of breast cancer (BC) specialists as to their role in the return-to-work (RTW) process of their BC patients.

Methods A qualitative study using semi-structured interviews was conducted in a sample of 20 BC specialists selected according to age, gender, medical specialty (medical oncology, radiation oncology, gynecological surgery), and healthcare organization (regional cancer center, university or private hospital). All interviews were audiotaped and transcribed for qualitative thematic content analysis.

Results BC specialists had heterogeneous representations and practices regarding their role in their patients' RTW process, ranging from non-involvement to frequent discussion. Most BC specialists had concerns regarding the “right time and right way” to address patient's RTW. They hardly mentioned workplace and job factors as potential barriers but rather stressed motivation. The main reported barriers to involvement in the RTW process were lack of time, lack of knowledge, lack of skills, and a professional attitude exclusively focused on cancer care issues.

Conclusion While our study showed varying representations and practices among BC specialists, participants consistently identified barriers in supporting BC survivors' RTW. The results will guide the development of an intervention to facilitate the role of BC specialists in the RTW process as part of a multicomponent intervention to facilitate BC survivors' RTW.

Key terms breast cancer survivor; general practitioner; intervention mapping; psychosocial, occupational physician; oncology; RTW.

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Breast cancer (BC) is the most common cancer in women worldwide (1), with good prognosis and 5-year survival rates exceeding 80% (2–4). Due to increasing BC incidence (including in younger women), increasing survival and the raising of the retirement age (5), the number of BC survivors expected to return to work (RTW) is raising and becoming a growing issue in BC care. Overall, about 40% of BC survivors are estimated to be of working age (<65 years old) (6).

RTW after BC is influenced by many factors, acting both as barriers and facilitators. These factors are linked to individual BC survivor characteristics such as age and education, cancer characteristics such as type and stage, treatment characteristics such as type of surgery and use of adjuvant chemotherapy, and the BC survivor's environment (family, workplace) (7, 8). Physical and cognitive limitations may impact ability to work (9, 10). Changes in the workplace during sick leave may mean that patients lose their bearings (9, 10) and increase negative feelings and anxiety (9–12). Qualitative surveys highlighted many uncertainties faced by BC survivors and emphasized changes in their career goals during and after active BC treatment (9–11, 13).

Furthermore, women report insufficient guidance from their healthcare practitioners on work-related issues (11, 13, 14), and feel abandoned by the healthcare system at the end of their active treatment. Lack of communication between hospital and general practitioners (GP) during follow-up has also been reported, as well as lack of communication with occupational health services (15). These issues are likely to influence the RTW process (16, 17).

In the workplace, social support from colleagues and managers and job accommodation are positively associated with RTW rates and sustained employment after cancer (7, 18, 19). Although interventions to promote RTW after BC have been developed, workplace involvement and job accommodation are rarely organized (20–22). Coordination between hospital, community, and occupational physicians (OP) needs improving to fill the gap between the end of active treatment and RTW (13).

BC survivors meet various specialists during hospital-based treatment, usually in the following order: surgeons, medical oncologists, and radiation oncologists. In France, in addition to the compulsory RTW consultation at resumption of work, a pre-RTW consultation with the OP is mandatory for a sick leave of >3 months regardless of the underlying medical condition (23). This pre-RTW consultation, aiming to address the conditions of the resumption of work and possible adaptations needed, is organized as early as possible before the end of the sick leave on request by the patient himself or his/her treating physician. The BC specialist, in charge of prescribing the sick leave and evaluating the patient's ability to resume work from the oncology perspective, plays a

major role in this process. However, only 37% of cancer patients who returned to their job and 14% of those who went to another job after cancer had such a consultation (24). This suggests a lack of referral to the OP and potential lack of commitment of cancer specialists regarding RTW issues for BC survivors. Although RTW after (breast) cancer has been previously explored from the patient, GP and workplace perspectives (25–28), the experience and perceptions of BC specialists on their role in RTW issues has been mostly unexplored.

The main objective of the present qualitative study was to explore the perspective of BC specialists regarding their perceived professional role toward the RTW needs of their BC patients. Secondary objectives were to identify barriers and facilitators for teamwork between BC specialists and GP and OP in the RTW process.

Methods

A qualitative approach with semi-structured interviews was adopted to explore BC specialists' point of view in depth. This qualitative study is part of the FASTRACS program conducted in France, which aims to develop a multi-component intervention to facilitate and sustain RTW after BC, following the six steps of the intervention mapping (IM) protocol (29, 30). The study is part of the first step, consisting of a health-needs assessment to develop a logic model of the problem and define intervention objectives. The results are expected to contribute to the subsequent steps of the IM protocol in order to develop, implement, and evaluate a multi-stage intervention involving BC specialists and other stakeholders in the RTW process. More specifically, these results will identify the behaviors of cancer specialists that should be modified by the intervention to facilitate the RTW process.

Setting

The study was conducted in the urban area of Lyon, France, which comprises three types of cancer-care facilities for 1.8 million inhabitants: a regional cancer center, a consortium of university public hospitals, and private hospitals. Approximately 1700 new BC cases are diagnosed each year in this area.

Sampling

A purposive sampling strategy was followed to include a balanced sample of participants intended to represent the variety of BC specialists, which patients encounter. Sampling criteria comprised gender, age, specialty (medical oncology, radiation oncology, and gynecology).

logical surgery), and healthcare organization (regional cancer center, university hospital, and private hospital). The second author identified the first participants, who in turn identified other possible participants in a snow-ball progression. New participants were chosen and contacted on an ongoing basis according to the sampling criteria, until data saturation defined as the point at which interviews did not bring important additional information (31).

Data collection

Semi-structured interviews were preferred to focus groups so as to minimize the risk of dominant personalities and social desirability bias. An interview guide was drawn up based on the most common themes mentioned in literature reviews on RTW after (breast) cancer (10, 12), and on the clinical experience of the authors in medical oncology, general practice, and occupational medicine. All the researchers discussed the interview guide, and it was adjusted during the data collection process to modify wording and incorporate new important themes. The themes of the final interview guide are shown in table 1.

Two residents in general practice conducted the interviews (AK and CJ), following training by a senior researcher (JBF) who also discussed their field notes and interview transcriptions after each interview. All interviews were conducted face-to-face in the participant's usual work setting, between 22 December 2015 and 26 July 2016. Median duration was 43 minutes (range, 31–97 minutes). Data saturation was obtained after 20 interviews.

Data analysis

All interviews were audiotaped, transcribed verbatim, and pseudonymized for any information identifying person or place. Qualitative thematic content analysis was performed using the MAXQDA v11 (VERBI Software GmbH, Berlin, Germany). Analysis first proceeded deductively, with a coding tree adapted from the themes of the interview guide. In a second step, new categories were created inductively to analyze data which did not fit the initial categories. Sub-categories were also created to refine the analysis of categories in which content was deemed too heterogeneous. Each interview was analyzed in depth (intra-case analysis) and summarized in a concise format that was used secondarily for transversal (inter-case) analysis. Data saturation was reached progressively. After discussion, it was decided to stop the data collection after 20 interviews (31). At the end of the process, the researchers discussed the results with two participants, who recognized themselves in the results and provided more details that were included in the final results.

Table 1. Interview guide.

Part 1: Introduction
Usual conditions of practice (pathologies, recruitment, job tenure, job organization)
Personal interest in the study
Specificities of breast cancer care and patients
Part 2: Case presentation
Presentation of one or two selected cases, with reasons for choosing them
Part 3: Semi-structured themes
Managing cancer care and work (importance of patient's work for the physician, discussion about work with the patients, sick-leave prescription, treatment adaptations)
Side-effects of treatments (to what extent is the physician aware of side-effects, informs the patient about them, and questions the patient about them at follow-up visits)
Perceived women's needs about work
Experience of women returning to work (barriers and facilitators identified)
Experience of women not returning to work (main barriers identified)
Experience of women continuing their work during cancer care
Role of other physicians (other oncologists, general practitioners, occupational physicians, social insurance physicians)
Role of other actors (nurse, physiotherapist, psychologist, social worker, workplace actors)
Part 4: Conclusion
Summary and identification of other potential participants

Ethics

No identifying patient information were accessed for the study. All participating physicians were provided with an information leaflet. Written informed consent was obtained from all participants. The study received local review board approval (IRB n° 00009118).

Results

Participants

The characteristics of the 20 participants are presented in table 2. The sample was composed of 12 female and 8 male physicians, aged 30–39 (N=9), 40–49 (N=6) and ≥50 years (N=5). They worked in public hospitals (N=9), private hospitals (N=5), or the regional cancer center (N=6). Their specialties were medical oncology (N=8), radiation oncology (N=6), and gynecological surgery (N=6).

Various representations of the importance of work issues for the doctor–patient encounter

The respondents offered diverse representations of the relevance of the patient's work and RTW issues in the doctor–patient encounter. They reported varying practices of how to address work issues with their patients, ranging from almost total absence of consideration to frequent discussions about the patient's work.

“But we are entirely involved in treatment in one

Table 2. Characteristics of study participants. [BC=breast cancer; RCCC=regional cancer care center.]

Specialty	Gender	Age (years)	Healthcare facility	Job tenure (years) ^a	Proportion (%) of BC patients
Medical oncology	F	30–39	RCCC	2	60
Medical oncology	F	≥50	Private	18	40
Medical oncology	F	30–39	Public	3	70
Medical oncology	F	30–39	Public	3	60
Medical oncology	F	30–39	Private	2	80
Medical oncology	M	30–39	Public	1	30
Medical oncology	M	30–39	RCCC	7	70
Medical oncology	M	≥50	Public	18	50
Surgery	F	40–49	RCCC	12	100
Surgery	F	30–39	Public	8	40
Surgery	M	30–39	RCCC	3	70
Surgery	M	≥50	Private	20	30
Surgery	M	40–49	Public	2	50
Surgery	M	40–49	Public	15	30
Radiation oncology	F	30–39	Public	2	90
Radiation oncology	F	40–49	Public	15	20
Radiation oncology	F	≥50	Private	20	80
Radiation oncology	F	≥50	Private	8	75
Radiation oncology	F	40–49	RCCC	12	10
Radiation oncology	M	40–49	Public	12	10

^a Job tenure in the current healthcare facility.

way or another, or in prevention. And the relationship to work, almost never.” (Surgeon)

“So, if you want to discuss this subject with patients, there are virtually permanent discussions.” (Medical oncologist)

Shared concerns

There was no single approach to the timing and way to address work-related issues with patients. Surgeons tended to address the occupational consequences of specific techniques beforehand, or at follow-up in case of secondary breast reconstruction.

Medical oncologists reported raising work-related issues before or after chemotherapy but never during the chemotherapy itself. Radiation oncologists considered themselves to be in the best position to raise work-related issues at the end of radiotherapy, deemed to constitute the end of “heavy treatment”. Many participants shared concerns about the “right time and right way” to address RTW with their patients given the variety of individual situations.

“We don't really know how to situate return to work during patient care, (...) well, I find it difficult to decide when to talk about return to work and what resources are available and already set up to help the patients with that.” (Medical oncologist)

Perceived barriers, needs, and facilitators for RTW

Perceived barriers, needs, and facilitators are listed in table 3. The need for better continuity of care at the end of curative treatment was reported as being important.

Several respondents mentioned that BC patients asked for their permission before returning to work. BC specialists stated that, even if they could identify treatment side-effects, they did not ask their patients about their potential impact as barriers to return to work and sometimes minimize them.

“Well, with radiotherapy, there's no... Normally after a patient who has had breast irradiation, there's no problem for her to go back to work afterwards.” (Radiation oncologist)

“No, no, I don't think I'm looking for them, the side-effects. You look for them (...) in daily activities. But specifically their impact on work, no.” (Medical oncologist)

“So I'll ask her “Is there anything worrying you in your daily life?” But in terms of returning to work... [Coughing]. No, to be honest, no.” (Surgeon)

Physical demands of the job, psychological pressure, and adversarial relations in the workplace were hardly mentioned as potential barriers to RTW. The influence of pain, anxiety, or depressive disorders as potential barriers to RTW was rarely mentioned. While the physicians emphasized the importance of social support from colleagues and employers (table 3), the possible role of the OP in this respect was never mentioned.

Professional practices of BC specialists

BC specialists reported a lack of opportunity to discuss work-related issues of their patients. Work and RTW issues were never on the agenda of the weekly multidisciplinary meeting, which was exclusively dedicated to treatment issues.

[Concerning other oncologists]: “No, very rarely, because we're entirely on the, concerned about, like, managing the disease and treatments.” (Medical oncologist)

“But it's true we don't talk about it. (...) It's true that it's not an issue.” (Radiation oncologist)

Most respondents agreed as to the importance of the GP and OP regarding RTW. However, they were unable to say precisely what role they could have. They reported mentioning them to their patients as possible contact persons for RTW issues. However, they themselves never took the initiative to contact the OP or GP, except for one medical oncologist.

“(...) but, the question of returning to work, quite honestly, we don't even discuss it with the social worker.” (Medical oncologist)

Overall, BC specialists described their role as dedicated to cancer care and cure, predominantly as technical expertise, leaving little room for psychological or survivorship issues. There was no difference in this regard between surgeons, medical oncologists, and radiation oncologists.

Table 3. Perceived barriers, needs, and facilitators for breast cancer survivors to return to work (RTW).

	Breast cancer specialists' quotes
Barriers (side-effects of treatment)	
Chemotherapy (sick leave duration, fatigue, chemically induced menopause, cognitive impairment)	"About return, let's say... And patients who've had chemo, you can see they're still, er, aff... like, they have a, quote sequela unquote of the chemotherapy that lasts all the same long after the end of chemotherapy and they have difficulty returning to work." "I went back but, anybody says anything I have to note it all down. They know I forget, so they repeat. Er, well, like, then it's also things colleagues, er, some of them, it goes okay, others, it's complicated." (Medical oncologist)
Mastectomy	"I think, well, there's, in my opinion, it's mainly, er, mastectomy, in my opinion. So there, the severity of surgical treatment, in my opinion, going to affect, in my opinion like."
Facilitators	
Patients' personal motivation	"Someone who's got their head screwed on, who's dynamic, wants to move forward, (...) she'll go for it, (...). And then there is the one who's more looking at herself, and then, impossible to do anything, even if she actually didn't have anything, huh. So, uh, that's almost the most important thing."
Physical activity programs	"And it's true, this program, it helps us all the same a lot to get rid of the post-treatment tiredness and encourage the patients to go back to work again."
Adaptations of treatment organization	"Often for patients who want to work I put their chemotherapy treatment on Thursdays so that on Fridays they don't work, they have Saturday, Sunday and finally on Monday they can get back, uh, a bit better and it, and it was okay." (Medical oncologist)
Workplace adaptations (job accommodation, part-time work, entitlement as disabled worker)	"But I find that a lot, they, they've taken account, they could plan for it, they could talk about it before, even, er, yeah, adapting the work time, but er they, they don't mention it either. Er, like, if sometimes they do say, they say, yes, they helped me at the workplace."
Social support from colleagues and employer	"So, when they've, colleagues have listened, understood, empathized, and well they want to go back obviously, when the work time is adjusted, I mean the, the work, and er, they want to go back more easily than when they don't feel well with their work." (Surgeon)
Perceived needs	
Cognitive rehabilitation programs	"(...) something based on effort rehabilitation and also, er, at the, er, intellectual level, like. Some kind of gymnastics, er to get used to working again, to concentrate, er, so." (Surgeon)
Material support in family life	"Er, and I think yes there's, to have something organized around that, around a, a support, er, for a while on house-work and on, er, anything to do with work."
Time for self before returning to work	"end of treatment because, because they needed well to, to look after her, do sport, look after the family, travel, you see, that it was the time for her to do that, like."
Better continuity of care at end of curative treatments	"When you stop treatment (...) there are patients who feel a little abandoned, because they suddenly go from over-medicalization (...) to no more medicalization at all."
Breast cancer specialists' permission before returning to work	"They ask me if they can go back to work, always." (Medical oncologist)

"(...) we are entirely involved in the management of the disease and treatment." (Surgeon)

"That is, once the chemo is over, the radiotherapy is over, the surgery has been done, so the person is supposed to get back to normal life, and for us the work has been done" (Medical oncologist)

Lack of time, lack of training and sometimes lack of interest were mentioned about patients' work-related issues. Several respondents expressed their inability to meet the work-related expectations of BC patients.

"Well, you see, it's complicated, because at the same time, we have to tie up the health aspect; they ask us questions about the prognosis for their disease. And at the same time, we have to answer about work, the legal aspect, which we are not necessarily familiar with either, you see." (Medical oncologist)

Ways to improve BC specialists' involvement in survivors' return to work

The main barriers to the involvement of BC specialists in their patients' RTW issues included (i) lack of time, (ii) lack of knowledge, especially regarding RTW procedures and legislation, (iii) the potential barriers to RTW,

(iv) the role of the various actors involved in the RTW process, particularly GP and OP, (v) lack of awareness of the importance of work to their patients, and (vi) a professional attitude exclusively focused on care and cure objectives.

The participants offered no practical solutions to the removal of these barriers. Only one medical oncologist mentioned the possibility of integrating work-related issues in the personalized treatment plan of the patients.

"Maybe we should say: "So, then, about three or four months after the end of the radiotherapy, you should get back to work, well considering that could be as a therapeutic half-time, but we'll talk about it again, it's much too early, first of all let's start the treatment, you need to be on the road to recovery first." (Medical oncologist)

BC specialists' views according to gender and medical specialty

All the respondents expressed an interest in the study and willingly shared their personal limitations regarding RTW in cancer patients during the interviews. None expressed negative feelings about the risk of being judged or stigmatized. No specificities were identified in

terms of respondents' age or type of healthcare facility.

"I think what is interesting about this study is that it raises questions that I think are untypical. In any case untypical (...) for a cancer specialist who is used to (...) being immersed in a cancer research environment. Because precisely (...) the theme (...) is not directly the one we deal with on a daily basis, which is optimizing patient treatment." (Medical oncologist)

Female and male BC specialists sometimes expressed different views. Female specialists said they participated in the study due to a desire to improve their practice, whereas male participants rather expressed their interest in scientific research. Females particularly stressed BC survivors' need for cognitive rehabilitation. Only females mentioned the patients' need to take some time for themselves, to have treatment schedules adapted to their occupational needs, and the fact that they encounter barriers in the workplace due to physical demands or psychological pressure. Males, in contrast, stressed the importance of the patient's personal motivation and temperament in RTW.

BC specialists minimized the side-effects of the treatments they prescribed, ie, medical oncologists understated the side-effects of chemotherapy, whereas radiation oncologists minimized the side-effects of radiotherapy. During feedback with two interviewees, this finding was confirmed and commented on in terms of medical liability.

"Afterwards, what's true, and it's really true, in oncology, it's never your fault, when a patient has a symptom, it's always the other specialist's fault. Always." (Medical oncologist)

"And there, I think, there's also a forensic problem. You can't be responsible for a problem, uh, the patient has... because in the last analysis, there's the insurance, you know." (Medical oncologist)

Discussion

Main findings

While there is a growing body of studies on RTW issues in cancer patients, the present study is to the best of our knowledge the first specifically to examine BC specialists' perspective on their role in BC survivors' RTW. This qualitative study revealed varying attitudes and practices in BC specialists regarding the relevance of work and return to work issues in the doctor-patient relationship and their role in the patients RTW process. Overall, the BC specialists perceived their role as limited and mainly restricted to management of disease and treatment-related side effects. Participants unanimously expressed difficulties in supporting BC survivors in their RTW in

collaboration with GP and OP. The participants consistently identified the following main obstacles: lack of time and awareness of the importance of work for their patients, lack of skills and personal efficacy, as well as professional practices centered on treatment and cure, leaving little room for psychological and occupational issues. Despite these recognized difficulties, specialists also stressed that BC survivors frequently asked them for advice before returning to work.

Barriers and facilitators in the RTW process

Certain participants mentioned treatment side-effects and sequelae as obstacles to RTW, in agreement with the literature (14, 32). Others, however, minimized this and in their consultations did not assess the occupational impact of cancer and treatment, consistent with other reports (33). The majority, on the other hand, cited the determining role of the patient's personality in the RTW process. Factors relating to the workplace environment were rarely mentioned, despite the scientific evidence, especially in case of cognitive disorder or lymphedema limiting work ability (32).

BC specialists' working environment, training, and professional role

The present study found a mismatch between BC specialists' practices and their patients' expectations in terms of support needed in the RTW process following BC (34). This is in line with other reports stating that BC specialists fail to take account of a variety of cancer survivors' needs including, their occupational concerns (5, 28, 35–40). This may be related to factors concerning BC specialists' working environment and medical training. It also raises the question of whether BC specialists should take on a more supportive role in the RTW process.

The working environment of BC survivors is characterized by an insufficient number of professionals to manage an increasing number of complex patients requiring individualized treatments (41). Treatments are so heavy that RTW may seem to be a secondary consideration. At the same time, patient information requires more time and attention, resulting in severe time limits, with an average consultation time that is too short to deal with anything unrelated to diagnosis, disease, prognosis, treatment and treatment options, and side-effects. Moreover, current guidelines and personalized post-cancer plans make no mention of occupational factors among the various fields the BC specialist is supposed to deal with, even though the guidelines do acknowledge maintenance of employment as a major post-cancer issue (42, 43). Finally, mean age at BC diagnosis is around 61 years, so that many patients are

not concerned by occupational questions (6, 44). It would thus seem that BC specialists' practices depend on aspects of their working environment and patient characteristics. Yet, the increase of younger women with BC, increased BC survival as well as growing female employment rates and raising retirement age in many countries is leading to a change in BC patient profile with an increasing number of BC survivors concerned by RTW issues (5, 45, 46).

BC specialists' initial and continuous training focuses on diagnosis, prognosis, and treatment, with ever increasing technicity, especially in the fields of imaging, biology, and precision medicine. The psychological, social and occupational impact of cancer is little dealt with. This results in lack of knowledge of conditions and legislation regarding work and the various actors and provisions that can be brought into play to facilitate RTW. It also results in a lack of competence to deal with patients' occupational issues, and a perceived lack of self efficacy in this regard, which could explain why participants did not mention factors related to their patients' working environment as barriers to RTW. Hence, the lack of consideration of RTW issues may be related more to the general barriers in the delivery of psychosocial care to cancer survivors as well as the lack of consideration for psychosocial issues by the healthcare system (28, 40). The lack of RTW help was among the numerous unmet psychological needs identified by cancer patients (22, 39, 40), and inter-relationships exists among poor psychosocial well-being and lower rates of return to work and/or impaired ability to work in cancer survivors (9, 22).

The present findings also point to a lack of communication between BC specialists and other professionals, such as GP, OP and social workers, regarding BC survivors' RTW. This is doubtless multifactorial, involving a lack of time on all sides and insufficient training, habits, and value attached to multidisciplinary teamwork beyond cancer treatment (47). While the communication among healthcare professionals for cancer survivor follow-up, as well as the role of communication between occupational health, employers and colleagues to managing RTW has been identified as key in the cancer survivor in the literature (28, 37, 48, 49), the communication between BC specialists and other professionals regarding RTW has not received much attention. The follow-up of cancer survivors involves different healthcare professionals and the transition from hospital to primary care faces various barriers, including communication but also sometimes patient preference (50). Consistent with the results from our study, GPs have identified the lack of communication and information from BC specialists in the hospital as a barrier to appropriately advice patients on RTW, resulting in sometimes conflicting guidance (28). In the

specific field of occupational rehabilitation after cancer, the gap between hospital and community physicians is accentuated by the lack of guidelines as to respective professional roles and the articulation with occupational health services in facilitating RTW (28, 37, 49). These findings are applicable across numerous developed countries, leading to the need of improving collaboration and communication between hospital, community, and occupational professionals to improve continuity of care and adequate RTW guidance for cancer patients (28, 37, 50–53). In accordance with what has been suggested for cancer survivor care more generally, this role should be played by (health) professionals other than BC specialists (37, 49–51, 54) as has been suggested, BC specialists' training and working environment are combined to place them in a difficult position to advise patients on RTW. Despite their patients' expectations (14), they are neither sufficiently trained nor well placed to provide RTW advice themselves. Their professional role focusses the priority on cure and prevention of recurrence, in the context of high demand to keep their knowledge up to date and keep patients informed despite severe lack of time and increasing workload (41, 43).

Implications for healthcare practice and organization

The barriers identified do not seem to be specifically related to the French healthcare system and are in line with findings from other countries (28, 37, 52–54). Lack of communication among healthcare professionals, insufficient knowledge about work-related concerns, and limited resources were recurring themes in these studies.

Better integration of RTW issues in the management of BC patients requires better definitions of healthcare professionals' respective roles. Overcoming the barriers between hospital, community medicine, and occupational health requires improving communication and collaboration so as to improve continuity of care, rehabilitation, and RTW. While the role of BC specialists is limited by the many demands and workload related to cancer care, they should have a determining role in informing their patients of the importance of work in the recovery process and the persons and resources available to help them with this, as well as transmitting the relevant information to other healthcare providers, such as the patient's GP (28), to ensure continuity of care.

The present study's results suggest several means of improving BC specialists' practices in the support to RTW. Our results point out the need to enhance BC specialists' awareness and knowledge by means of targeted information on the importance of work for their patients and of the roles of the different professionals (52, 53); this in turn will enhance their self-efficacy and may lead to a change in behavior. As regards their working environment, finding more time to address

RTW may be unrealistic, but guidelines and tools as a support to inform patients and enhance liaison with other professionals could usefully be developed. Also, means of remuneration for collaboration between the different professionals of this orphan issue in the current cancer care process should be explored.

Perspectives for integration in FASTRACS

The results from this study contributed to designing the FASTRACS RTW multicomponent intervention, in particular the steps of intervention mapping and setting up behavioral change matrices by helping to formulate performance objectives for behaviors to be encouraged in BC specialists (55). The first target for the BC specialists is to provide a minimum of advice to patients regarding the importance of RTW for recovery from cancer, relevant resource persons and the usefulness of calling upon these resource persons (GP, OP, social worker, and RTW counsellors). The second is to refer the patient at the end of radiation therapy to a transitional consultation with their GP with a specific liaison letter. According to the logic model of the problem (55), the next step is for the GP to refer the patient to a pre-RTW consultation with an OP to assess work ability and adapt working conditions and time so as to facilitate RTW.

Study strengths and limitations

The strong point of the study lies in the measures taken to ensure validity according to the criteria implemented in qualitative research (56). Sampling enabled the research topic to be explored by varying participant characteristics and work contexts. Triangulation of researchers' disciplines (medicine, psychology, public health) was implemented at the design stage of the study topic, in drawing up the interview guide, and in analyzing and interpreting the results. Qualitative analysis software ensured the traceability of the analysis process and facilitated triangulation. Feedback from two participants corroborated and completed the researchers' interpretation. Data saturation was achieved progressively, with no significant new input during the last interviews. A logbook was updated by the two researchers who collected the data, enabling the non-verbal dimension and context to be included in analysis.

The qualitative approach does not allow the present results to be considered representative of the practices of BC specialists as a whole. For them to be extrapolated, surveys of practice in larger representative samples will be needed, notably to confirm whether differences according to gender are real.

That interviews were conducted by two junior investigators may have impaired the richness of the data. This risk was limited by close supervision by one senior

investigator. This particularity also had the advantage of reducing social desirability bias and perceived risk of being judged by a peer or senior researcher.

Extrapolation to contexts other than the French health system can only be made in the light of the specificities of the various systems. Barriers and facilitators to RTW after BC and the characteristics of cancer specialists' working environment are similar in many health systems; some countries, however, may have developed specific measures and organizational features to enhance specialists' involvement in accompanying RTW after cancer (57, 58).

Concluding remarks

The present qualitative survey of 20 BC specialist identified several limitations in their practice regarding accompaniment of RTW. These concerned individual characteristics but also medical training and restrictions in their working environment. Larger-scale surveys will be needed in order to describe more precisely BC specialists' RTW-related practices, their determining factors, and possible means of improvement. Any improvements must be integrated in the organization of healthcare so as to benefit all patients. This is the aim of the FASTRACS project: to develop an intervention to facilitate RTW after BC at the level of the Auvergne-Rhône-Alpes region of France.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional review board (n°IRB 00009118) and the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed consent was obtained from all individual participants included in the study, before taking part of the study.

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