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# Building a novel occupational rehabilitation program to support cancer survivors to return to health, wellness, and work in Australia

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## Abstract

**Purpose** With a substantial increase in the population of cancer survivors of working age, issues concerning sustainable employment must be addressed. The health benefits of work are well established; however, the lack of support to transition back to work is a gap in survivorship care. Researchers, occupational rehabilitation and insurance sectors, cancer support services, and consumers have collaborated to develop a tailored, multimodal occupational rehabilitation program to support resumption of meaningful work for cancer survivors. This paper describes intervention development and refinement based on pilot results and expert- and consumer-recommendations.

**Methods** The pilot was conducted within the life insurance sector, a collaboration fostered by global reinsurance company Swiss Re, with cancer survivors referred to an Australian provider of occupational rehabilitation services.

**Results** Preliminary outcomes from 15 of 72 cancer survivors following adequate engagement (excluding those who withdrew or were still actively engaged) showed 10 (67%) with improved certified capacity to work, translating to 13 (87%) with improved work status. Consultant survey results indicated barriers to participation in and engagement with the program, including referral delays, health concerns, and cancer recurrence. Expert panel recommendations were used to refine the intervention and tailor to breast cancer survivors for the feasibility stage.

**Conclusions** Strengths include an innovative model of referral and funding, through a life insurance provider, the involvement of a multidisciplinary collaborative team to design, develop and implement the pilot, and considerable consumer involvement.

**Implications for Cancer Survivors** The refined intervention will address a critical gap to improve reintegration into work and society, contributing to improved quality of life for cancer survivors in Australia. Models of referral through insurers to rehabilitation services could be adopted in other jurisdictions.

**Keywords** Cancer survivors · Return to work · Rehabilitation · Vocational

## Introduction

Approximately 40–55% of cancer cases occur in people of working age, 45% in the USA (2012-2016) [1]. Increased work absence, unemployment, lower income, and early retirement occur following cancer [2]. We need to prioritize research addressing issues of sustainable employment for cancer survivors. Sustaining or returning to work aids social recovery and a sense of normality for cancer survivors, and benefits society and employers economically [3, 4].

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The transition back to work for cancer survivors is influenced by the individual and workplace [5, 6]. Discrimination and poor accommodations are associated with a reduced work ability, and losing or leaving a job [7]. Common experiences affecting work ability include physical and mental fatigue, pain, and psychological distress [8].

Tackling sickness absence and work disability requires rehabilitation professionals working with individuals and employers. A common barrier is employer concerns about fulfilling job demands, and uncertainty about communication with the cancer survivor [6].

There is a need for targeted support while transitioning back to work following cancer. The 2017 National Cancer Policy Forum recommendations highlighted the need for holistic initiatives that address psychosocial needs as well as physical [9]. In Australia, there is rudimentary RTW assistance through occupational therapists within public hospitals. This role needs to be embraced by other suitably trained professionals, such as occupational rehabilitation (OR) consultants.

This paper describes the development of a tailored, multimodal OR intervention to support transition back to sustainable work for cancer survivors. A pilot was conducted to demonstrate feasibility of intervention delivery within the life insurance sector, prompted by cancer being recognized as the third most common illness relating to life insurance claims and sickness absence in Australia. Once a claim is approved, the majority receive income replacement benefits, a potential financial disincentive to RTW. People are often unaware that benefits also cover "rehabilitation expenses," including occupational rehabilitation.

## Methods

In Australia and the UK, it is standard OR practice to provide services for returning to suitable, sustainable work following injury or chronic health concerns, including workplace assessments, modifications, employer discussions, RTW guidance (RTW plans and monitoring progress), and referral to services (e.g., psychology, exercise physiology).

Referral to OR services by life insurers is not standard practice. The multimodal OR intervention [10] was developed to support the transition to sustainable work and wellness for cancer survivors, and included services beyond standard OR practices (see below). Pilot implementation required a collaborative partnership between life insurance (referral base) and OR providers (service providers). Senior OR and life insurance industry rehabilitation staff developed an implementation plan and delivery model that used a stepped care approach (assessment determines level and type of intervention required) to service provision to meet the unique needs of each cancer survivor.

The program elements were delivered in a tailored fashion, predominantly face-to-face, at consultant offices by a trained OR consultant. The standard OR RTW planning and monitoring services (above) were complemented by:

1. A comprehensive, evidence-based biopsychosocial assessment to identify barriers and facilitators to work and wellness. Results were used to tailor service delivery.
2. Health Coaching: 6–8 1-h sessions delivered flexibly to suit the circumstances of the individual, delivered over an 8–12 week period.

The novel health coaching program aimed to reduce the impact of existing negative beliefs and perceptions about work and health, and other biopsychosocial factors that could hinder work readiness for cancer survivors. The modules build health literacy and self-management, covering problem solving around managing cancer symptoms and treatment side-effects in the workplace, and the importance of lifestyle factors such as graded exercise and social support.

## Expert panel stakeholder workshop

The post-pilot stakeholder workshop included senior representatives from the OR sector, life insurance and cancer support sectors, a cancer survivor with experience transitioning back to work, a medical oncologist, an employer representative, an occupational physician, and research academics with expertise in cancer survivorship and factors influencing RTW. The workshop was scheduled 12 months after the pilot had started receiving referrals.

## Measures

To establish implementation feasibility, rates of referral and program completion over the first 12 months of the pilot were obtained. Preliminary indications of effectiveness were obtained using primary RTW outcomes. Upon completion of the program, the OR consultant recorded RTW status and work capacity (relative to referral) for each program participant, as defined:

RTW status—no RTW, RTW with modified hours/duties/role, or RTW as pre-diagnosis
Work capacity—the current capacity to "work" stated in hours, type of work, and duties

## Results

### Pilot participants

IPAR Rehabilitation received 72 cancer survivor referrals to the multimodal OR program over 12 months identified as eligible by life insurer partner, AIA Australia who met inclusion criteria of working age (18–65 years), working prior to diagnosis, and unable to work in their regular (pre-diagnosis) capacity for at least 3 months due to cancer and/or its treatments. Breast cancer, lymphoma, colorectal/bowel cancers, and leukemia were most common. Screening by health insurance case managers confirmed that individuals were not yet working at full capacity, but were ready to participate in the context of general health and circumstances. Time since last work (at referral) was reasonably similar across subgroups (mean = 13.6 months final sample, 11.7 months for those who dropped out, and 9.1 months for those actively participating). Participants who dropped out ($n$ = 22) differed from those in the final completed sample (n = 15) and those still actively participating ($n$ = 35) in terms of:

- Cancer diagnoses: fewer breast cancer (41% compared with 60% in active/final group), more leukemia (14% compared with 6% in active/final group) and lymphoma (23% compared with 10% in active/final group) in those who dropped out, and more recurrences (23% compared with 7–9% in other groups)
- Time since diagnosis (at referral). This varied greatly, and was greatest for those in the final pilot sample (mean = 21.2 months, SD = 19.8) followed by those who dropped out (16.8 months, SD = 17.8), and shortest for those still actively participating (13.2 months, SD = 8.6)
- Percentage certified as "unfit" for work at referral. This was highest for those who dropped out (86%), followed by 60% in the actively participating, and 40% in the final pilot sample

### Referral and program participation

At the end of 12 months, the pilot OR database indicated that of the 72 referrals:

- 15 had completed their final assessment (outcome measures obtained)
- 22 dropped out following limited (if any) progress in the intervention
- 35 were still actively involved in the program

The subgroup ($n$ = 15) who engaged with and completed their participation in the intervention did so in 26 weeks on average (range 15–31 weeks). All 15 participated in the biopsychosocial assessment at referral, and the majority (13 of 15) completed the health coaching as recommended. All 15 participants engaged in at least one other standard element of OR service provision (e.g., referral to other services, RTW planning and monitoring).

### Preliminary outcomes

Work capacity and work status outcomes:

- 10 of the 15 (67%) showed improved certified capacity relative to referral; 5 (36%) showed no change in certified capacity
- 13 (86%) showed improved work status and RTW relative to referral, 1 was job seeking, and 1 had not yet returned to work

The group ($n$ = 22) who made limited progress in the intervention included four individuals who made some progress (average active participation 20.5 weeks). The remaining 18 (82%) of the 22 made minimal progress, some choosing not to proceed after the initial assessment. The reasons for dropping

**Table 1** Expert panel recommendations

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| OR consultant training recommendations |
| Refine training materials:<br>- Tailor content to breast cancer for the funded feasibility study<br>- More focus on survivorship issues, including RTW<br>- Consumer representation<br>- Consultant resource package, including pilot case studies<br>- Feasible and effective mode of delivery |
| Intervention delivery recommendations (for OR consultants)<br>- Regular debriefing sessions and support mechanisms for rehabilitation consultants<br>- Promote understanding of the insurance system and awareness of potential distrust of program provision within life insurance context<br>- Demonstrate evidence-base, academic, & cancer support agency partnerships<br>- Clearly communicate main goal of gradual RTW readiness<br>- Use flow chart to demonstrate pathway (see Fig. 1)<br>- Do not exclude those with advanced disease wishing to transition to work |
| Employer/workplace education recommendations<br>- Formal employer/workplace education<br>- Consider timing of initial employer contact; consent from cancer survivor<br>- Promote provision of "reasonable adjustments" to facilitate transition back to work<br>- Encourage initiating and maintaining communication with workplace<br>- Educate about:<br>o Cancer survivorship and journey<br>o Communication with survivor and staff<br>o Privacy<br>o Benefits of RTW<br>- Tailor to organizational context (size, type) |

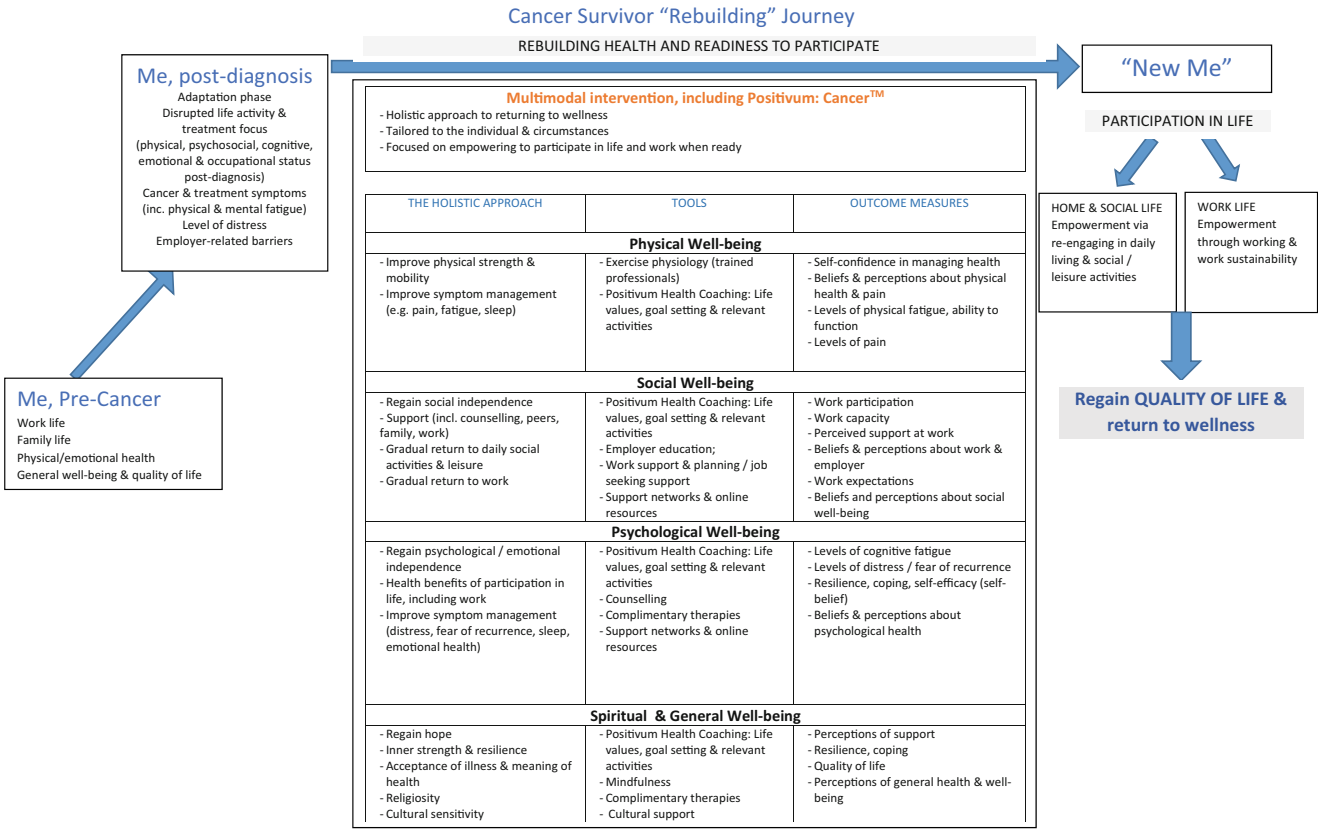


**Fig. 1** Guiding framework embedding the approach used to address each aspect of well-being, program tools and outcome measures within the Cancer Survivor "Rebuilding" journey

out were either health/prognosis related (i.e., more recurrences, less favorable cancer diagnoses, reduced work capacity at referral), or lack of engagement.

## Pilot follow-up

A survey was administered to the OR consultants delivering the program to identify challenges with engagement and follow-up with the cohort, as well as gaps in their knowledge and expertise that might be addressed by further training. The results of this survey, completed by 18 OR consultants, indicated barriers to participation in and engagement with the program, including referral delays typical within life insurance (average 15.8 months), health concerns, and cancer recurrence.

The expert panel stakeholder workshop was held to discuss preliminary pilot results and OR consultant survey findings to develop a set of recommendations to further refine the intervention for the feasibility stage which had funding from the National Breast Cancer Foundation (NBCF). The panel's combined expertise and experiences alongside the emerging academic literature on RTW determinants for cancer survivors enabled the following recommendations (Table 1).

Figure 1 represents the guiding framework demonstrating how program elements foster transitioning to work readiness/life participation. A simplified version is used by OR consultants with cancer survivors.

## Discussion

Early indicators from the pilot are positive despite the small sample size with 10 of 15 showing improved certified capacity to work, translating to 13 of 15 (87%) improved work status and RTW relative to referral following an average 25 weeks active program duration. These participants were actively engaged in the program, all completing the biopsychosocial assessment, most participating in the health coaching and at least 2 other program elements. Further improvements in engagement and reducing drop-outs should be achieved by implementing recommendations (Table 1) including tailoring to specific survivor populations, and focusing on "attaining work readiness" instead of RTW. Earlier intervention post-diagnosis would be preferable.

Pilot results and expert panel recommendations will advance the provision of high quality cancer survivorship care in Australia by enabling the refinement a multimodal OR program that:

– Addresses a known gap in the continuum of cancer survivorship care

- Offers a formal "workplace education component" to directly address work-related barriers to RTW
- Provides resources and information to a variety of workplaces to support continued employment/RTW for cancer survivors
- Has the potential to be offered nation-wide with appropriate support and funding
- Brings together life insurance, OR, and cancer support sectors

The next stage feasibility study will implement and evaluate 'Beyond Cancer', a rehabilitation program to support breast cancer survivors to return to health, wellness and work. This will further aid our understanding of factors that contribute to the transition to meaningful and sustainable work for cancer survivors.

Limitations included small sample size and high drop-out rate. Moreover, recruiting through life insurance increased time since diagnosis and delayed intervention relative to other recruitment methods.

## Conclusion

This project works toward improved work, health, and quality of life outcomes for cancer survivors, and improvements in service offerings within life insurance and rehabilitation provider sectors in Australia. More broadly, models of referral through insurers to rehabilitation services could be adopted in other jurisdictions.

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## Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

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