

# DEVELOPMENT AND IMPLEMENTATION OF WORK-RELATED MEDICAL REHABILITATION IN CANCER PATIENTS USING ORGANIZATIONAL ETHNOGRAPHY AND ACTION RESEARCH METHODOLOGY

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## Abstract

**Objectives:** To develop a work-related medical rehabilitation (WMR) program for cancer patients based on the best available evidence, the expertise of rehabilitation professionals and the perspective of the patients, to ensure the fidelity of its implementation and to prepare its subsequent outcome evaluation. **Material and Methods:** The implementation study was based on organizational ethnography and action research, and followed a multi-method, participatory and iterative approach to data collection and analysis. The authors carried out observations in 4 rehabilitation centers and conducted focus groups with rehabilitation professionals and patients. The obtained data were subjected to qualitative content analysis. All findings were discussed promptly with the rehabilitation centers at feedback meetings that contributed to the further development of the program. **Results:** The following WMR modules were defined based on the findings: additional work-related diagnostics, multi-professional team meetings, an introductory session, work-related functional capacity training, work-related psychological groups and intensified social counseling. Process descriptions for the subsequent evaluation of the program via a cluster-randomized trial were also developed, containing, e.g., instructions for patient information and recruitment. **Conclusions:** Implementation studies can help to prepare for valid trials as they facilitate ensuring the feasibility, acceptability and fidelity of program implementation and evaluation. Organizational ethnography and action research are suitable methods for carrying out such studies. *Int J Occup Med Environ Health.* 2019;32(2):217–28

## Key words:

qualitative research, cancer, action research, return-to-work, work-related medical rehabilitation, organizational ethnography

## INTRODUCTION

Although the global incidence of cancer has increased and is expected to surpass 20 million new cancer cases per year by 2025, more people than ever before are surviving cancer due to improvements in diagnosis and treatment [1–3]. As the growing group of cancer survivors in-

cludes many people of working age, increasing attention is being paid to their participation in working life [1–6]. Literature reviews on return-to-work (RTW) after cancer have reported average RTW rates of approximately 64% (range 24–94%) [4,7–12]. Yet, these studies have also shown that cancer survivors had a significantly increased

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risk for unemployment and early retirement, and were less likely to be re-employed. A meta-analysis by de Boer et al. [9] concluded that cancer survivors were 1.4 times more likely to be unemployed than healthy controls.

Many Western societies provide rehabilitation programs for cancer patients to improve functioning and promote RTW [2]. A Cochrane review [3] found that only multidisciplinary interventions incorporating physical, psychological and vocational components increased RTW rates relative to care as usual. In Germany, the rehabilitation of chronic work-disabled patients is provided by the German Pension Insurance (GPI). Conventional medical rehabilitation (MR) does little to address work-related problems [13]. This might explain why the evidence of the effects of MR on work-related outcomes is mixed at best. Studies have shown that especially patients with more severe restrictions of their work ability (e.g., long or repeated periods of sick leave, unemployment, poor self-rated RTW prognosis) do not benefit from MR [14,15]. As a consequence rehabilitation programs with a stronger focus on work-related issues have been developed in recent years [16,17]. Randomized controlled trials (RCTs) in patients with musculoskeletal [18,19], cardiac [20] and mental disorders [21,22] have shown that patients who took part in a work-related rehabilitation (WMR) program achieved significantly higher RTW rates than patients who attended MR; however, the development, implementation and evaluation of a successful WMR program for cancer patients is still lacking.

In response to this, the authors planned the development, implementation and subsequent outcome evaluation of a WMR program for cancer patients with severe restrictions of their work ability. This article focuses on the implementation phase, which had 2 objectives. First, it aimed at developing a program based on the best available evidence, the expertise of rehabilitation professionals and the perspective of the patients. Second, it was expected to ensure the acceptability and feasibility of the program and

thus increase the fidelity of its implementation and minimize the risk of implementation failure.

Implementation failure is defined as failure to deliver a program as intended [23–26] and thus goes along with low fidelity and may result in failure to achieve the intended intervention effects. The main reasons for implementation failure are lack of acceptance of the program or its infeasibility in a given context. Both the acceptance and feasibility of a program may be additionally affected by outcome evaluation procedures that lack acceptability, e.g., prescribe randomized assignment to different treatments (especially if one is assumed to be “better”) or feasibility, e.g., require additional effort on the part of staff delivering the program.

## MATERIAL AND METHODS

The study was carried out in cooperation with 4 inpatient rehabilitation centers (centers A–D) specializing in the rehabilitation of cancer patients on behalf of the GPI. Together, the 4 centers cover the full spectrum of cancer types and sites (ICD–10 [International Statistical Classification of Diseases and Related Health Problems, 10th Revision]: C00–D48). The participating centers had already attempted to develop and implement work-related diagnostic and therapeutic modules before they agreed to participate in this study. The implementation phase of this study started in January 2015 and ended in June 2015, when program evaluation via a cluster-randomized trial began (The intervention group received the newly developed WMR program and the control group received conventional MR. Patients in all centres were randomized in clusters to both groups. The clusters were defined by rehabilitation start date. Randomization was stratified by center.) [27].

The study (its implementation and evaluation phases) was approved by the ethics committee of the University of Lübeck, Germany (ethical approval no. 14–289) and the data protection commissioner of the GPI. All procedures per-

formed in this study involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration, including its subsequent amendments, or comparable ethical standards. All participating centers were fully informed about the study and signed cooperation agreements before the study started. Team members and patients who were involved in focus groups were additionally informed orally and by written information sheets, and had to sign consent forms.

### **Methodological approach**

The implementation phase of this study was based on organizational ethnography (OE) and action research (AR). Organizational ethnography examines organizations and their everyday practices through fieldwork, using a multi-method approach to data collection and analysis [28]. Its overall aim is to generate a rich and holistic picture to facilitate the understanding of the object of investigation. The key method of data collection is participant observation that is combined and triangulated with other methods, such as conducting interviews and focus groups or collecting documents and artefacts [28–30]. In addition to video and audio recordings, transcripts and records, as well as compilations of documents and artefacts, field notes, memos and diaries, are the commonly used forms of documenting data. Like data collection, data analysis is accomplished primarily via qualitative methods. While the particular methods chosen depend on the specific research question, OE typically employs an inductive approach to data analysis, in which meanings, generalizations, hypotheses and theories are generated from and grounded in the data.

Action research is an approach to inquiry that is characterized by collaboration between researchers and practitioners or lay persons, and its primary objective is to bring about improvements in practices through joint action [31–33]. It therefore generates both practical and scientific knowledge; changes in practice and development of theory. Action re-

search is typically an iterative process. The “action research cycle” comprises 4 main stages: planning (defining goals and strategies), acting (putting strategies into practice), observing (documenting the actions taken) and reflecting (considering whether the goals were achieved) [33,34]. If the goals were not fully achieved, the cycle begins again with a revised plan. Successive cycles make up what is referred to as an “action research spiral.”

Both OE and AR are context-sensitive approaches to inquiry – realized through multi-method fieldwork and participation of relevant actors, respectively. This helps to ensure that the research generates an appropriate holistic and ecologically valid understanding of the topic being investigated, and in the case of AR, that feasible, acceptable plans for actions and change are developed and implemented. By combining OE and AR, the authors thus followed a multi-method, context-sensitive, participatory and iterative strategy of program development and implementation.

### **Data collection and analysis**

Since the 4 participating rehabilitation centers had already attempted to develop (plan) and implement (act) work-related modules, the AR spiral of the implementation study actually started at step 3, i.e., the observation of these actions using OE methodology. The specific objectives during this step were to:

- get to know the centers, their organizational structures, processes and proceedings;
- get to know the existing work-related modules, their aims, content and doses, and also the structural and personnel resources required for their delivery;
- get to know the rehabilitation teams, their duties and responsibilities, and their attitudes toward WMR and the planned cluster-randomized trial;
- build a relationship of trust with all centers and teams, and encourage them to participate actively in the implementation phase;

- get to know the target patient group (cancer patients with severe restrictions of their work ability), their specific disease and work-related situations;
- document the experiences, perceptions and evaluations of rehabilitation teams and patients with regard to the existing work-related modules;
- derive input for the intended WMR program, plan the cluster-randomized trial and outline the appropriate evaluation procedures.

To collect the required information, the authors visited each center several times, staying up to 5 days on each visit. During these visits, they accompanied rehabilitation professionals (members of the multi-professional rehabilitation teams) and patients throughout their days. The authors carried out observations whilst attending conventional and

work-related diagnostic and therapeutic modules and team meetings. They tracked the patient admission process and obtained insight into the organizational and technical procedures involved in therapy planning. They also conducted focus groups with the rehabilitation teams and patients (topics in Table 1) and, furthermore, engaged in a large number of more informal conversations with them.

The authors documented their observations and conversations in field memos and records; focus groups were audio recorded and the recordings were subsequently transcribed verbatim. They enriched the database with documents used by the centers in the planning and carrying out of treatment and daily routines (e.g., screening and assessment instruments; concepts, curricula and manuals for therapeutic modules; worksheets and sets of slides).

**Table 1.** Topics covered in focus groups with team members and patients in 4 rehabilitation centers in Germany

Focus groups with team members	Focus groups with patients
<ul style="list-style-type: none"> <li>● Round of introductions: name, profession, duties and responsibilities</li> <li>● Significance of work and participation in working life after cancer</li> <li>● Typical restrictions on cancer patients' work-related activities and participation</li> <li>● Reasons and motives for developing and implementing work-related modules</li> <li>● Description of these modules (content, aims, time frame, settings, professional domain, required structural and personnel resources)</li> <li>● Experience of implementing these modules (strengths, challenges, reactions and feedback from patients)</li> <li>● Significance of multi-professional teamwork</li> <li>● Ingredients of a successful WMR program for cancer patients, suggestions for the planned WMR program (with special regard for 1, the specific needs of cancer patients, 2, the acceptability and feasibility of the program)</li> <li>● Facilitators and barriers to successful implementation of work-related modules as part of cancer rehabilitation</li> <li>● Organization of the trial and evaluation procedures (with special regard for the acceptability and feasibility of the outcome evaluation)</li> <li>● Open questions and further remarks</li> </ul>	<ul style="list-style-type: none"> <li>● Round of introductions: name, age, family status, occupation, medical history and access to rehabilitation</li> <li>● Expectations of rehabilitation and rehabilitation goals</li> <li>● Significance of work and participation in working life (before and after cancer)</li> <li>● Vocational future (expectations; hopes; wishes; fears; potential pitfalls), RTW prognoses, RTW plans</li> <li>● Perceived/anticipated restrictions on work-related activities and participation</li> <li>● Experiences of the existing rehabilitation program: pros and cons, strengths, weaknesses and shortcomings</li> <li>● Perception and evaluation of work-related modules</li> <li>● Suggestions for the planned WMR program</li> <li>● Open questions and further remarks</li> </ul>

RTW – return-to-work; WMR – work-related medical rehabilitation.

MAXQDA software was used to support qualitative content analysis [35] of all data as part of the next step in the AR spiral, i.e., reflection on the actions observed. First, the authors analyzed data from individual centers separately, and then compared the centers to enhance their understanding of center-specificity. If they came across any open question, unclear or contradictory aspects, they contacted the centers via phone or mail to request clarification. This analysis generated useful information with respect to planning the WMR program while also providing a rich and holistic picture of the centers that would be the settings for the intervention and its evaluation.

This preliminary phase was vital to the development of a feasible, accepted program and feasible, accepted outcome evaluation procedures for the cluster-randomized trial. After the communicative validation [36] of center-related findings, interpretations and conclusions via bilateral talks, the authors presented and discussed their findings (including a first draft of the planned WMR program and evaluation procedures) at a meeting attended by representatives of all 4 centers. This meeting took place at the end of the fourth month of the implementation phase (April 2015) and enabled all centers to engage in a direct and intensive dialogue. Especially the mutual exchange about their individual strengths and solutions of practical problems was of great importance and provided further significant input for the development of the program.

The authors, as researchers, added input on the available evidence regarding WMR. This served as the basis for revising the authors' proposals for the WMR program and the evaluation procedures (revised plan) jointly with the participating centers. The development needs of each center were identified (i.e., what each center would need to do to be able to implement the WMR program as designed) and the actions that the authors, as the research team, needed to take to ensure that their outcome evaluation procedures were integrated into the processes and daily routines of each center as effectively as possible. Whilst

the centers were putting the WMR program into practice (acting), the authors finalized the description of the program and completed the evaluation procedures (process descriptions containing instructions for patient information, recruitment, randomization and the patient survey at the beginning and end of rehabilitation; electronic data files for documenting the recruitment, randomization and survey; randomization lists; instructions and codes for electronic documentation of the single modules of the WMR program), and provided all materials to the centers.

During this period, the authors remained in regular contact with participating centers to track and discuss (observe and reflect) the implementation of the program, and the utility and practicality of the evaluation procedures. On this basis, they finally decided bilaterally on the exact launching point for the outcome evaluation phase in each center. Centers A and C started at the beginning of June 2015, center B in the middle of June and center D at the end of June. In terms of AR, the final acting (i.e., formal implementation of the WMR program by all participating centers) and observation of it (via patient surveys and an analysis of administrative data) started on these dates. Reflection on the findings at the end of the outcome evaluation phase marks the end of the AR spiral.

## RESULTS

### WMR program

Table 2 summarizes the developed WMR program, which comprises 6 modules:

- additional work-related diagnostics,
- multi-professional team meetings,
- an introductory session,
- work-related functional capacity training,
- work-related psychological groups,
- intensified social counseling.

The program protocol specifies the minimum duration, setting, delivery personnel and main contents of all modules. It provides a framework and sets minimum standards

**Table 2.** Overview of the developed work-related medical rehabilitation (WMR) program [27]

Module	Time	Setting	Professions	Content
Additional work-related diagnostics	<ul style="list-style-type: none"> <li>during admission to rehabilitation</li> <li>total: at least 60 min</li> <li>– medical assessment: 15 min</li> <li>– psychological assessment: 15 min</li> <li>– test of functional capacity and performance: 30 min</li> </ul>	personal interaction with the patient	<ul style="list-style-type: none"> <li>physician</li> <li>psychologist, psychotherapist</li> <li>occupational therapist, physiotherapist</li> </ul>	<ul style="list-style-type: none"> <li>assessment of work functioning and its restrictions related to body functions and structures, as well as activities and participation</li> <li>assessment of environmental and personal factors that impact on work functioning positively as resources and skills or negatively as barriers</li> <li>use of structured patient interviews and/or standardized assessment instruments as well as standardized tests of functional capacity evaluation, structured observations of non-standardized job tasks</li> </ul>
Multi-professional team meetings	<ul style="list-style-type: none"> <li>after admission</li> <li>during the course of rehabilitation</li> <li>before discharge</li> </ul>	not applicable	all professions associated with the WMR program	<ul style="list-style-type: none"> <li>individual case conference for each patient</li> <li>after admission: results of the work-related diagnostics, joint development of a treatment plan</li> <li>during the course of rehabilitation: development of the patient, adjustment of the treatment plan if needed</li> <li>before discharge: evaluation of rehabilitation outcomes, RTW prognosis, additional measures to support RTW if needed</li> </ul>
Introductory session	after admission	presentation in front of all WMR patients	physician	<ul style="list-style-type: none"> <li>description of the aims of WMR, explanation of the program structure and each module, introduction of the rehabilitation team</li> <li>information, motivation and preparation of the patient for the subsequent program</li> <li>establishing of treatment collaboration</li> </ul>
Work-related functional capacity training	at least 360 min	training in small groups or personal training	<ul style="list-style-type: none"> <li>occupational therapist</li> <li>physiotherapist</li> </ul>	<ul style="list-style-type: none"> <li>complex and multidimensional tasks to simulate realistic work-related demands and situations</li> <li>integrated ergonomic and cognitive training</li> </ul>
Work-related psychological groups	at least 240 min	seminars with small groups	<ul style="list-style-type: none"> <li>psychologist</li> <li>psychotherapist</li> </ul>	<ul style="list-style-type: none"> <li>seminars focusing on work-related stress and coping, work-related social competencies in communication, and planning the concrete RTW</li> </ul>
Intensified social counseling	at least 90 min: <ul style="list-style-type: none"> <li>60 min seminars</li> <li>30 min personal counseling</li> </ul>	seminars with small groups or personal counseling	<ul style="list-style-type: none"> <li>social worker</li> </ul>	<ul style="list-style-type: none"> <li>clarification of the problematic work-related situations and perspectives</li> <li>information and consultation on social law-related topics as well as measures and benefits to support RTW, establish contact with employer and request further measures and benefits from the social or health services agencies if needed</li> </ul>

Abbreviations as in Table 1.

Reprinted from Wienert J, Schwarz B, Bethge M. Effectiveness of work-related medical rehabilitation in cancer patients: Study protocol of a cluster-randomized multicenter trial. *BMC Cancer*. 2016;16:544, <https://doi.org/10.1186/s12885-016-2563-z> distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>). No changes in the content were made.

rather than being rigid and prescriptive; this means that the exact content and delivery format can be tailored to the specific clinical context. This approach was intended to enhance the feasibility and acceptability of the program. The way in which the work-related functional capacity training dealt explicitly with cognitive functions illustrates how the authors integrated the findings of the center visits into the program. Both rehabilitation professionals and patients described how the disease or its treatment had led to cognitive impairments that could constrain work-related activities and restrict participation in working life.

“I submitted an application for rehabilitation because I did not feel fit enough in my private and working life. I had some concentration problems and was making a lot of mistakes ... I want to improve that ... my tiredness, being exhausted ...” (the focus group with patients).

“In general, fatigue and exhaustion of non-depressive origin play a much stronger role in oncology than in orthopedics ... problems with concentration and memory are typical in cancer patients” (the focus group with rehabilitation professionals).

“... and of course cognitive training, which is given minor importance in musculoskeletal disorders, where the focus is more on the physical aspects ... in oncology cognitive training has to be an integral part of the treatment” (the focus group with rehabilitation professionals).

#### **Process descriptions for the cluster-randomized trial**

The process descriptions that were developed to support the outcome evaluation of the WMR program via a cluster-randomized trial in participating centers consist of instructions for the following: identification of eligible patients (screening to assess the need for WMR, application of inclusion and exclusion criteria), information and recruitment of eligible patients, randomization of patients, patient survey at the beginning and end of rehabilitation, extraction of additional data from discharge letters, docu-

mentation of all activities in a prepared electronic data file and delivery of all relevant data to the researchers. The process descriptions were tailored to the specific organizational structure, processes and procedures of each center to enhance acceptance and feasibility of the outcome evaluation. Table 3 shows an extract from the process descriptions.

#### **Success of the implementation**

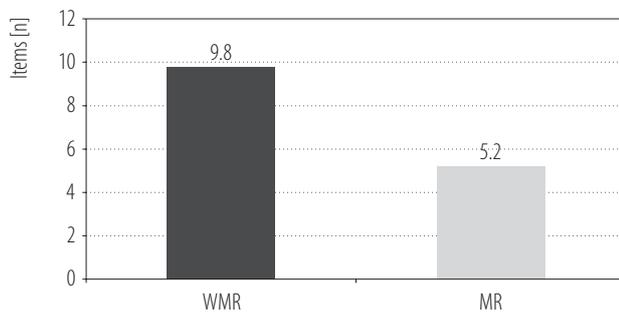
Figure 1 shows the first result from the effectiveness study. At the end of the rehabilitation, all patients were asked 12 dichotomized questions assessing whether their rehabilitation program had covered work-related modules and contents (e.g., “Have you participated in work-related functional training?”). The scores of each item were summed to obtain a total score ranging 0–12 pts. As the figure shows, WMR patients experienced more work-related modules and contents than MR patients (+4.7 pts,  $p < 0.001$ ). Analyses were adjusted for rehabilitation centers as a fixed factor, and clusters as a random factor. This result provides the first evidence that the program was implemented successfully as it indicates that work-related modules and contents were not only delivered by the rehabilitation centers but also consciously received by the patients. Further evidence will be derived, e.g., by the analysis of documented treatment modules.

#### **DISCUSSION**

The presented results of this outcome evaluation suggest that the implementation study objectives were achieved. The authors successfully developed and implemented a WMR program for cancer patients based on the best available evidence, the expertise of rehabilitation professionals and the perspectives of cancer patients, as well as procedures, instructions and materials for its subsequent outcome evaluation via a cluster-randomized trial. The authors ensured the acceptability and feasibility of the program and its outcome evaluation, and enhanced fidel-

**Table 3.** Samples of the process descriptions for the evaluation phase: identification, information and recruitment of eligible patients in 4 rehabilitation centers in Germany

Centre A	Centre B	Centre C	Centre D
<ul style="list-style-type: none"> <li>• The screening instrument used in the study to identify patients at a higher risk of not returning to work is sent to patients with the center's invitation letter before the rehabilitation starts.</li> <li>• Completed screenings and the predefined inclusion criteria for the study are appraised by the supervising physician as part of the admission and diagnostic procedure; the decision about inclusion is documented by him/her in the prepared data file.</li> <li>• The study nurse gives the group of eligible patients information about the study (orally and via information sheets), asks them if they are willing to participate, and distributes and collects written consent forms.</li> <li>• The study nurse distributes the baseline questionnaires, on which she has marked the patients' study numbers, and collects them once they are completed.</li> <li>• The study nurse records in the prepared data file whether eligible patients have or have not consented to participate, and whether they submitted a completed questionnaire or not.</li> </ul>	<ul style="list-style-type: none"> <li>• The screening instrument used in the study to identify patients at a higher risk of not returning to work is handed out to all arriving patients and has to be completed by them immediately.</li> <li>• Completed screenings are appraised by the supervising psychologist as part of the admission and diagnostic procedure; the appraisal is documented by him/her in the prepared data file.</li> <li>• The supervising physician considers whether the patient meets the other predefined inclusion criteria for the study and documents the decision in the prepared data file.</li> <li>• The supervising physician tells eligible patients about the study individually (orally and via information sheets), asks if they are willing to participate and hands out the written consent form and baseline questionnaire.</li> <li>• Completed consent forms and baseline questionnaires are collected by the study nurse, who writes the patients' study numbers on the questionnaires.</li> <li>• The study nurse records in the prepared data file whether eligible patients have or have not consented to participate, and whether they submitted a completed questionnaire or not.</li> </ul>	<ul style="list-style-type: none"> <li>• The screening instrument used in the study to identify patients at a higher risk of not returning to work is handed out by the study nurse to all patients after the multi-professional diagnostic procedure on day 1 and has to be completed by them immediately.</li> <li>• Completed screenings are appraised by the study nurse; the appraisal is documented by her in the prepared data file.</li> <li>• The other predefined inclusion criteria for the study are appraised subsequently by the supervising physician, who documents the appraisal and inclusion decision in the prepared data file.</li> <li>• The study nurse informs all eligible patients about the study (orally and via information sheets), asks them if they are willing to participate, and distributes and collects written consent forms; she announces a collective appointment for the next day at which patients will complete the baseline questionnaire.</li> <li>• The study nurse marks the patients' study numbers on the questionnaires before distribution and collects them once they are completed.</li> <li>• The study nurse records in the prepared data file whether eligible patients have or have not consented to participate, and whether they submitted a completed questionnaire or not.</li> </ul>	<ul style="list-style-type: none"> <li>• The screening instrument used in the study to identify patients at a higher risk of not returning to work is handed out to all arriving patients and has to be completed by them immediately.</li> <li>• Completed screenings and predefined inclusion criteria for the study are appraised by the supervising physician as part of the admission and diagnostic procedure; the decision about inclusion is documented by him/her in the prepared data file.</li> <li>• The supervising physician gives eligible patients brief information about the study; his/her medical assistant distributes the information sheet and the written consent form to them, and announces an appointment with the study nurse on the next day.</li> <li>• The study nurse gives eligible patients full information about the study (orally and via information sheets), collects the consent forms and distributes the baseline questionnaires, which have been marked with the patients' study numbers. Patients have to return completed questionnaires to the medical assistant until the following day.</li> <li>• The study nurse records in the prepared data file whether eligible patients have or have not consented to participate, and whether they submitted a completed questionnaire or not.</li> </ul>



**Figure 1.** Estimated marginal means of work-related modules and contents covered during conventional medical rehabilitation (MR) and work-related medical rehabilitation (WMR), comprising 12 items in a study conducted in 4 rehabilitation centers in Germany

ity to both the developed WMR framework (i.e., the intended implementation of the program) and the outlined evaluation procedures (i.e., the planned realization of the cluster-randomized trial), thus minimizing the risk of an implementation failure.

The selected design and methods contributed substantially to the successful development and implementation of the program. Unlike the implementation studies that run in parallel with an evaluation of the outcomes of an intervention (process evaluations), and hence can only help to explain implementation failures after they have occurred, this implementation study preceded the outcome evaluation and therefore enabled the authors to prevent an implementation failure [37]. Organizational ethnography and AR were combined using a context-sensitive, participatory approach to research (participating centers were explored as settings for the intervention and outcome evaluation; rehabilitation professionals working in the centers were actively involved in developing and implementing the program and designing the outcome evaluation procedures), and thus it was possible to avoid the main causes of implementation failure: infeasibility and the lack of acceptance.

The study nevertheless had some limitations. The first limitation is that the acceptance of the program and feasibility was not measured in a standardized way. Since the authors

developed the program and outcome evaluation procedures together with the participating rehabilitation centers, they rather relied on the centers' continuous feedback as a guide to feasibility and acceptance. Fidelity was assessed in a standardized way, but only after the implementation as part of the outcome evaluation (the analysis of documented treatment modules and patient-reported data).

There is also a question mark over the transferability of the program. Would it be accepted and feasible in other rehabilitation centers? There are arguments for and against good transferability. The program takes the form of a framework of minimum standards and is thus amenable to clinic-specific adaptation. The standards were developed based on the experiences of 4 rehabilitation centers varying in size and financial, structural and personnel resources. The framework thus accommodates diverse implementation contexts. Moreover, the framework was developed with additional efforts in mind, arising in the course of an outcome evaluation (e.g., patient information, recruitment and randomization). This additional work would not be required in other centers, but they will not have the ongoing support of researchers as they implement the program, nor will they be able to exchange ideas, information and experiences with other centers. It is also the case that although the framework allows the program to be tailored to the needs and resources of a particular clinic, it remains a framework developed by others. Identification with the goals of the program and motivation to implement it might therefore be lower. Last but not least, the authors did not measure the monetary costs arising in the course of the implementation of WMR. These costs are unquestionably another important factor for clinics when considering the implementation of a WMR program.

## CONCLUSIONS

The authors developed and implemented a WMR program for cancer patients in collaboration with 4 inpatient rehabilitation centers, ensuring its acceptability and feasibility in the participating centers, as well as its transferabil-

ity and dissemination to other rehabilitation centers. The design and methodological approach of this implementation study minimized the risk of an implementation failure and thus prepared a valid cluster-randomized trial.

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