

Development and evaluation of a strength-based method to promote employment of work- disability benefit recipients with multiple problems



Kor Brongers

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Colophon

This research was conducted within the Research Institute SHARE of the Graduate School of Medical Sciences, University Medical Center Groningen, University of Groningen and under auspices of the research program Public Health Research(PHR).

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Chapter 1

General introduction

Background

Work disability is one of the greatest social and labour market challenges for policy makers in most OECD countries [1]. On average, about 6% of the working-age population have received disability benefits, in 2018 the EU Member States spent approximately € 276 billion on disability benefits [2], and public spending on these benefits has become a serious burden. Moreover, once a disability benefit has been approved, the probability that the recipient will return to work is low [3]. In recent decades several OECD countries have reformed their disability programs and implemented return-to-work interventions to foster labour market integration of people with disabilities [4]. Several activation programs have been introduced to enhance social inclusion and return to work (RTW) of persons receiving work disability benefits [5, 6]. In spite of some promising results in reducing disability inflow [7], the effect of these programs on work participation remains low [8]. Across OECD countries, 44% of persons with disabilities participate in the labour force, compared to 70% for those without disabilities [9]. In the Netherlands, register data of the Social Security Institute for Employee Benefit Schemes (UWV) showed that of all individuals granted a long-term disability benefit and deemed to have sufficient residual work capacity, only 48% actually participate in paid employment [10].

It is well-known that, besides a person's disease, other disease-related, personal and environmental factors influence whether an individual is able to work [11-13]; there is an increasing awareness that in individuals claiming long-term disability benefit the existence of multiple problems may play an important role in low (re)employment rates. In a qualitative study in a population of unemployed persons with multiple barriers to employment in the UK almost all participants mentioned violent, abusive or disrupted family- or personal relations as barriers to employment [14, 15]. Another, quantitative, study on multiple problems and nonemployment found that of a sample of 550,000 individuals (aged 17 to 59) in the UK, nearly 10% were multiply disadvantaged, with at least three problems. Moreover, the more the disadvantages, the greater the likelihood for a person to be unemployed: the risk of those with no disadvantages was just 4 per cent, and the risk among those with six disadvantages as high as 91 per cent. The studies also showed that, besides health-related problems, other issues (such as financial problems, loneliness, disruptive family relationships and substance abuse) may affect (re)employment [16]. An explorative study in a sample of clients dependent on benefits over a long period of time (unemployment and work disability) reported that about 40% had at least two problems. The study also found that different types of underlying problems (low level of education, cultural obstacles, psychological and physical limitations, financial problems) may impact (re)employment of claimants on long-term benefits [17] (see Box 1).

Box 1. Definition of Multiple problems

Studies have varying definitions and descriptions for the concept “multiple problems”: multiple barriers, multiple disadvantages, numerous problems, or just problems [14, 16-20]. For this thesis we have used the following definition:

“There are multiple problems in persons when they have to deal with two or more related and possibly reinforcing problems for a longer period of time, and the person concerned is unable to develop and conduct adequate management to control or solve the problems, resulting in problematic participation in society and labour market” [17].

In 2011 the World Health Organization recommended using interventions that focus on client empowerment, encouraging unemployed people with disabilities to take their own responsibility to find work. This approach is more likely to involve subjects in decisions about the support they receive, therefore giving them more control over their lives [21]. However, the current provision of social assistance, and of employment services by social security administration, municipalities and health services to unemployed persons receiving work disability benefits, is fragmented. Moreover, most programs are supply-oriented, offering off-the-shelf service, instead of being person-centred, meeting clients’ needs and desires [17].

In the Netherlands, labour experts working at the Public Employment Services (Werkbedrijf) provide services and facilities to find work for these disability recipients with residual work capacity (see also Box 2: Description of the Dutch social security system). When needed, private reintegration agencies are contracted. The goal of these services and facilities is to improve the supply of labour by linking the receipt of social security to certain activations programs: activation (‘fit for work’) programs, therapeutic methods (aimed at enhancing self-esteem and self-efficacy) and job-search training (including job-application training, competency inventory, identification of skills and qualifications, and succeeding in a job interview) [22]. The (combination of) offered interventions aim to facilitate the obtaining of employment (job search success) by disability claimants with residual work capacity. However, as many of these disability recipients face severe and intertwined problems in different domains of their lives, these traditional interventions may have limited effectiveness.

A more comprehensive holistic approach, which addresses multiple problems, may be more effective than traditional programs [16] in making a successful transition towards the labour market, especially if it is linked to the specific needs and wishes of disability recipients and activates their social network. Such an approach would also correspond better with modern thinking about reintegrating people receiving disability benefits, as it assumes that people themselves often know the most acceptable solutions for their problems and how to activate their own personal and social resources to solve their problems. These comprehensive holistic approaches are relatively new in the field of work disability and reintegration, but they have been implemented successfully in welfare and mental healthcare settings. This chapter will briefly introduce two examples: the *Family Group Conference* and the *Comprehensive Approach to Rehabilitation*.

Box 2. Description of the social security setting in the Netherlands

During the first two years of sickness absence, employers are obliged to continue paying wages to their workers. In addition, they share the responsibility to strive for the RTW of the sick-listed worker. These responsibilities are described in the Gatekeeper Improvement Act (GIA, In Dutch: “Wet Verbetering Poortwachter”). After two years of sick leave, workers who do not fully reintegrate into work can apply for a disability benefit based on the so-called Work and Income Law (in Dutch: WIA). Young adults with disabilities either congenital or originating during childhood, can apply for disability benefits at the age of 18, based on the Invalidity Insurance Act for Young Disabled Persons (in Dutch: Wajong). The disability claim assessment includes a medical examination to assess functional limitations, conducted by an insurance physician, as well as assessment of earning capacity, conducted by a labour expert. Both are professionals working at the Dutch Social Security Institute for Employee Benefit Schemes (in Dutch: Uitvoeringsinstituut WerknemersVerzekeringen (UWV)). Individuals can have either full work disability or a partial work disability. Individuals in the latter group are deemed to have sufficient residual work capacity and are considered able to work (partially). However, many recipients have either lost their job and/or need support to find a new job. In such cases, labour experts from the Public Employment Service (in Dutch: Werkbedrijf) play a key role in supporting clients on work-disability benefits to (re)enter paid work.

The Family Group Conference (FGC) originates from Maori cultural practice in New Zealand, and has been further developed for child and youth welfare situations. It aims at involving the social environment of persons who need support. Through a standardized procedure, both the person affected by a specific situation and his or her familiar and social network, are enabled to develop mutually accepted and supported solutions, thus leading to sustainable changes. The procedure aims to promote resources and it enables subsidiary assistance, thereby reducing the need for official measures [23]. These principles of client empowerment and self-management correspond well with current activation strategies for clients on disability benefits who face multiple problems in returning to work. The FGC meeting is organized by a facilitator who uses private sessions with client and their families to create conditions for the family to work and find solutions together [24-26]. Although there is limited evidence regarding the effectiveness of FGC, these principles of family involvement seem to apply well to the RTW context, as there is a growing awareness in clinical and occupational health care that social context plays an important role in return-to-work processes, and that interventions involving significant others (partner, parents, other family members or friends) are more effective than care as usual, where they are not involved [27]. The FGC may therefore be an effective approach to support unemployed persons on disability benefits in their return-to-work process.

The second example that incorporates a comprehensive holistic approach is the Strengths model developed by Charles Rapp [28]. The Strengths model focuses on the personal qualities, talents, and strengths of persons with psychiatric disabilities, and on their environment [28]. The model includes six principles: 1. belief that these people can

recover, reclaim and transform their lives; 2. focus on the strengths rather than deficits of the individual; 3. view of the community as an oasis of resources; 4. regarding the client as director of the helping process; 5. emphasis on the case manager/client relationship as primary and essential; 6. recognition of the community as the primary setting. In the Netherlands, the Strengths model has been incorporated by mental health professionals into the Comprehensive Approach to Rehabilitation (CARE) [29, 30]. CARE is based on equality, and aims to improve the quality of life of persons with psychological or social vulnerabilities. The method focuses on strengths, helping subjects to realize their wishes and goals, and obtaining access to the living environment and social networks. Although developed for use in mental healthcare settings, the CARE method may also be suitable for disability and return-to-work settings, as it contains many elements (e.g. being strength-based, focused on clients' wishes and goals, and involving activation of the environment) that may improve chances for re-employment by persons with multiple problems.

Aim of this thesis

Disability recipients with residual work capacity should have the opportunity to be active in the labour market, as having a paid job is one of the best ways to ensure independence and social inclusion. To offer them appropriate return-to-work guidance, the overall aim of this thesis is thus to examine how a more comprehensive, holistic approach to return-to-work guidance can benefit disability recipients who have multiple problems.

The following three research objectives were formulated:

1. Explore the feasibility of the Family Group Conference and the Comprehensive Approach to Reintegrate persons with multiple problems (CARm, adapted from the CARE method) for use in return-to-work guidance of long-term unemployed disability recipients with multiple problems;
2. Study the concept of 'multiple problems' in the context of work disability and return to work, and explore the prevalence, types, number and combinations of perceived problems, as well as associated characteristics;
3. Evaluate process outcomes and the effectiveness of the CARm intervention in helping long-term unemployed disability recipients with multiple problems towards having paid work.

Outline of this thesis

Chapter 2 describes the findings of a feasibility study on the Family Group Conference. Chapter 3 presents the findings of the development and feasibility study of the CARm intervention. Chapter 4 describes the results of a study on the prevalence, types and combinations of multiple problems among disability recipients. Chapter 5 presents the effectiveness of the CARm intervention, followed by a process evaluation in Chapter 6. Finally, Chapter 7 summarizes and discusses the main findings of this thesis. It addresses methodological considerations, and presents recommendations for future use of the intervention.

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Chapter 2

Feasibility of Family Group Conference to promote return-to-work of persons receiving work disability benefit

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Abstract

Purpose: To investigate the feasibility of Family Group Conference for promoting return to work by clients receiving work disability benefits from the Social Security Institute in the Netherlands.

Methods: We conducted a mixed-method pre- post-intervention feasibility study, using questionnaires, semi-structured interviews and return to work plans drafted in Family Group Conferences. A convenient sample of Labour experts, Clients, and Facilitators was followed for a period of six months. Feasibility outcomes were demand, acceptability, implementation and limited efficacy of perceived mental health and level of participation.

Results: Fourteen labour experts and sixteen facilitators enrolled in the study. Of 28 eligible clients, nine (32%) participated in a Family Group Conference. About 78% of the Family Group Conferences were implemented as planned. Participant satisfaction about Family Group Conference was good (mean score 7). Perceived mental health and level of participation improved slightly during follow-up. Most actions in the return to work plans were work related. Most frequently chosen to take action was the participating client himself, supported by significant others in his or her social network. Six months after the Family Group Conference five participating clients returned to paid or voluntary work.

Conclusions: Family Group Conference seems a feasible intervention to promote return to work by clients on work disability benefit. Involvement of the social network may have added value to support the clients in this process. An effectiveness study to further develop and test Family Group Conferences is recommended.

Introduction

In many western welfare states, activation programs have been introduced to enhance social inclusion and return to work of persons receiving work disability benefits [1,2]. However, effectiveness of such activation programs is limited and labour force participation among people with disabilities remains low [3].

Long-term unemployment and work disability is an important social determinant of health inequalities across European Countries [4]. Unemployed individuals often report worse health status, experience more depressive symptoms, and are at a higher risk of mortality [5]. Re-employment improves mental and physical health, and generally increases quality of life [6].

In 2011 The World Health Organization recommended a person-centred and community-based service aimed at return to work, relying on client empowerment and encouraging unemployed people with disabilities to take their own responsibility to find work. Such an approach would more likely involve the unemployed in decisions about the support they receive and therefore give them more control over their lives [7]. Until recently, unemployed persons receiving work disability benefit have often obtained only fragmented provision of social assistance and employment services by social security administration, municipalities and health services. Moreover, most programs have still been supply-oriented, offering off-the-shelf service, instead of being person-centred, meeting clients' needs and desires [8].

Previous studies have pointed to the importance of the role of family and friends in supporting people with chronic diseases in their return to work process [9–11]. Such social support increases, for example, the likelihood that breast cancer survivors [12] and patients with chronic low back pain will return to work [13]. Studies have also reported that social support enhances the participation rate of unemployed people and gives them a stronger position in the labour market [14,15]. According to Furlong and Cartmel [16] the presence of social and cultural capital, e.g., education, skills, supportive family and effective social networks, gives starters at the labour market strong advantages. Their study shows family and social networks to be important sources of support, able to inspire better patterns of recruitment. In a qualitative British study in a population of unemployed persons with multiple barriers to employment almost all participants mentioned violent, abusive or disrupted family or personal relations as barriers to employment [17,18].

A well-known person-centred and community-based intervention is the Family Group Conference [19–22]. Family Group Conference is a network intervention by which the client, his or her family, and professionals together develop a plan to solve a problem of the client. Although Family Group Conference in its original form is mainly practice based, it is linked with several theories, such as empowerment, strength, and social network theory [20]. These theories fit well with the Family Group Conference assumptions of collective responsibility, mutual obligation and shared interest, self-reliance and client-control. The Family Group Conference meeting is organized by a facilitator who, during a

private session with the client and his family, creates conditions for them to work together and find solutions. Facilitators are not present during the actual conference [21,23,24].

Family Group Conference originated from Maori cultural practice in New Zealand and was further developed for child welfare services in the late 1980s. It aims to support client empowerment by mobilizing the client's social network, i.e., families and significant others outside the family [25,26]. Family Group Conference principles include collective responsibility, mutual obligation and shared interest. Self-reliance and client-control are also key concepts. The emphasis of Family Group Conference on client empowerment and self-management corresponds well with current activation strategies encouraging unemployed persons to take their own responsibility to find work. Another important pillar of Family Group Conference is family involvement. Family and other significant others are considered better able to consider all relevant problems in order to make well-informed decisions. Families are believed to have a right to participate in decisions that affect them, and to be competent to make decisions if properly engaged, prepared and provided with necessary information [21,24]. These principles of family involvement seem to apply to vocational rehabilitation, since the literature shows a positive association between positive social support and return to work [27–29]. Family Group Conference may thus be an effective approach to support unemployed persons receiving work disability benefit in the return to work process.

The Family Group Conference concept has spread to many Western countries [30–32], including the Netherlands [23,33]. This approach has been used in diverse settings with vulnerable groups, e.g., minority groups [34,35], juvenile crime recidivists [36] and longer-term social assistance recipients [25,26]. However, we found only one study which evaluated Family Group Conference in a setting of young adults with disabilities, about to leave school and enter the labour market [37]. In that study, although the process and the plan resulting from the Family Group Conference were evaluated positively, health and participation outcomes were not reported.

The aim of the present study is to evaluate the feasibility of Family Group Conference to promote return to work among unemployed persons receiving disability benefit, using Bowen's Feasibility Framework [38].

Method

Study design

To study the feasibility of the Family Group Conference for promoting return to work we conducted a pre-post-intervention mixed-method design, using Bowen's Feasibility Framework [38] to analyse relevant domains. The Medical Ethical Board of the University Medical Center of Groningen declared, in accordance with the Dutch Medical Research Involving Human Subjects Act [39], the study to be exempt from a medical ethical review (M12.117154). This study complies with The Netherlands Code of Conduct for Scientific Practice, from the Association of Universities in the Netherlands [40].

Setting

The Dutch Social Security Institute for Employee Benefits Schemes (UWV), servicing the northern region of the Netherlands, facilitated the present study in collaboration with the regional Family Group Conference organization. The Social Security Institute offers social assistance and employment services to clients receiving work disability benefits.

Participants

Participants in this study were clients, their Labour Experts from the Social Security Institute involved in guiding the clients back to work, and Family Group Conference facilitators. Participating clients enrolled after providing informed consent. Participation in the study was voluntary and participants could withdraw at any time.

Eligible clients were aged 17–65 years, receiving work disability benefit, had (partial) capacity to reintegrate into paid work according to their Labour Expert, but were not self-reliant in finding work, and mastering the Dutch language.

Since the budget for Family Group Conferences was limited and our aim was to study feasibility, we settled for a convenient sample.

Family Group Conference intervention

Facilitators were independent, trained and certified for their function by the Dutch Family Group Conference organisation. The Family Group Conferences took place in a neutral community building, from July 2012 to March 2013. A facilitator of the regional Family Group Conference organization and a staff Labour Expert at the local Social Security Institute office organised an instructional meeting for interested Labour Experts from the Social Security Institute. The Labour Experts present were provided with an instruction letter for their clients, an informed consent form, and a short written instruction. The Labour Experts introduced the Family Group Conference method to their clients and asked them to participate. Those willing to participate were then interviewed by the Family Group Conference facilitator. Interviewees willing to participate in a Family Group Conference then indicated persons in their social network who could also be invited. The facilitator then organised the invitations, a neutral location and the start-up of the Family Group Conference. The Family Group Conferences were carried out by the clients, their families, the Labour Experts from the Social Security Institute involved in the vocational rehabilitation of these clients, and the Family Group Conference facilitator. During the actual conference the facilitator was present at the location, but did not personally participate in the conference itself, nor did the Labour Expert. The Family Group Conference facilitator drafted a Return to Work Plan for each individual Family Group Conference participant. The Return to Work Plans included the following items: the main question(s) formulated in the Family Group Conference about a problem perceived by the client, the action(s) to be taken to address this problem, and the Family Group Conference participant(s) assigned to execute the action(s).

Data collection

We collected data from July 2012 to October 2013. To add strength and credibility to the findings we used information from multiple data sources [41]: questionnaires for participating clients, Labour Experts and Family Group Conference facilitators, semi-structured telephone interviews, and Return to Work Plans (Return to Work Plans) drafted during the Family Group Conferences. All data were anonymised.

Using standard questionnaires from the Family Group Conference organisation, the Family Group Conferences were evaluated according to four applicable domains of the Bowen Feasibility Framework [38]. These domains were: (1) demand, i.e., to what extent is Family Group Conference likely to be used, (2) acceptability, i.e., to what extent is Family Group Conference judged as satisfactory by Family Group Conference deliverers and recipients, (3) implementation, i.e., to what extent can Family Group Conference be successfully delivered to intended participants, and (4) limited Efficacy, i.e., does Family Group Conference promise to have the intended effects on health and participation. Definitions of the four domains are presented in Table 1.

Clients filled out the questionnaire in the presence of the facilitator directly before (T0) and directly after (T1) the Family Group Conference. Furthermore, a short survey was sent to the Labour Experts. Three months after the Family Group Conference (T2) the researcher (KB) interviewed the Labour Experts and clients by telephone, and sent the facilitators a short survey to collect information they had received from participating clients, their satisfaction with the Family Group Conference and Return to Work Plan, their cooperation with the Labour Expert, and some remarks and suggestions. The qualitative semi-structured telephone interviews were summarised during the interview and verified directly with the participants. Six months after the Family Group Conference (T3) the researcher (KB) again interviewed the clients by telephone. See also the flow-diagram (Figure 1).

Table 1. Key areas of focus, outcome of interest and data source.

Area of focus	Description	Study question	Outcome	Data source(s)
Demand	Actual use	Who of the targeted population participated in Family Group Conference?	<ul style="list-style-type: none"> Participant response Participant sociodemography 	<ul style="list-style-type: none"> Questionnaire participant Questionnaire labour expert
Acceptability	Reactions of participants, labour experts and facilitators to Family Group Conference	Is a Family Group Conference suitable to implement reintegration?	<ul style="list-style-type: none"> Perceived satisfaction Appropriateness 	<ul style="list-style-type: none"> Questionnaire participant Telephone interview participant
Implementation	Likelihood that Family Group Conference can be implemented as planned, and delivered when resources and commitment are constrained.	To what extent can Family Group Conference be successfully implemented among participants?	<ul style="list-style-type: none"> Number of executed Return to Work Plans Effect on participant 	<ul style="list-style-type: none"> Questionnaire participant, labour expert, Family Group Conference facilitator Telephone interview participant, labour expert
Limited efficacy	Reactions of participants to the use of Family Group Conference	To what extent does Family Group Conference show positive effects on key intermediate variables? What is the content of the Return to Work Plans?	<ul style="list-style-type: none"> Perceived health Level of participation Work status Main question, action, actor in Return to Work Plan 	<ul style="list-style-type: none"> Questionnaire Participation ladder Telephone interview participant Return to Work Plan

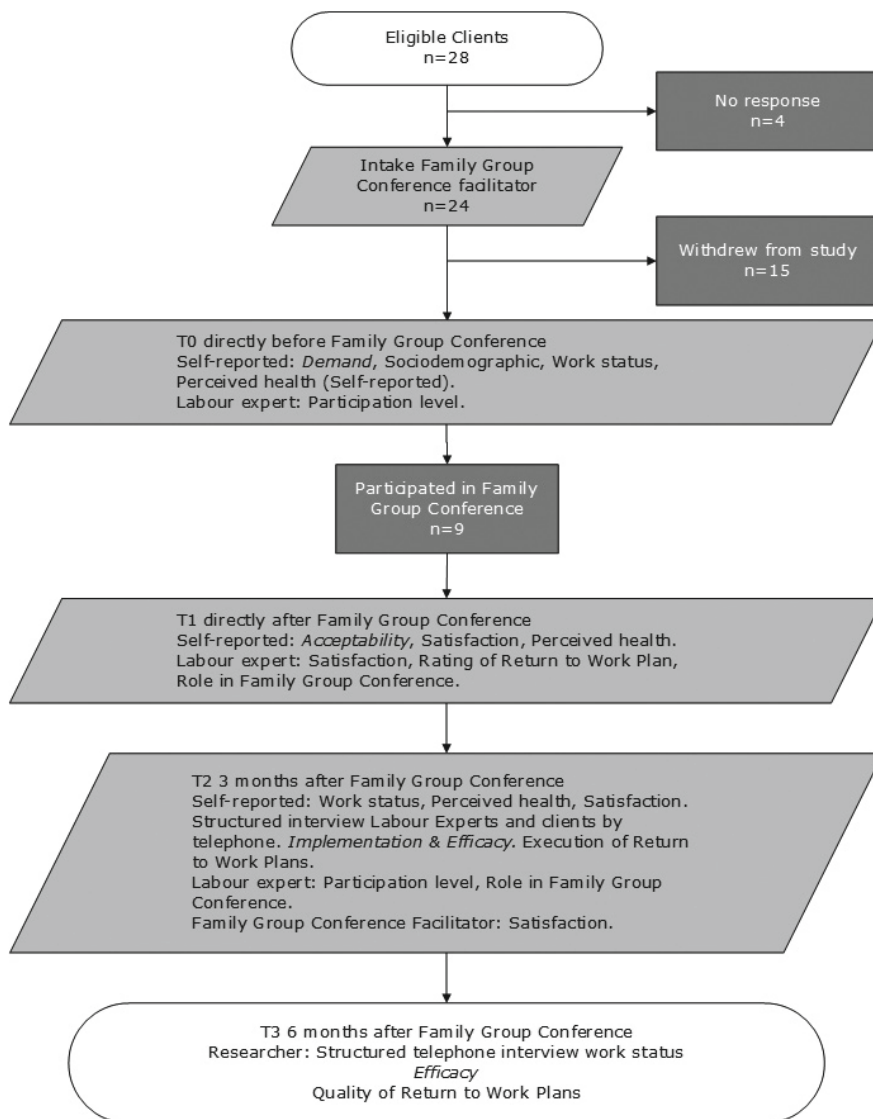


Figure 1. Flow-diagram and measures.

Demand

To describe *demand*, we collected sociodemographic data (i.e., gender, age, educational level, urbanisation, work status, marital status, having children) of participating clients at T0. There might be sociodemographic influence on participation in a Family Group Conference. We categorised educational level into low (elementary, preparatory middle-level), intermediate (middle-level applied; higher general continued) and high (university

applied sciences; research university). We categorised urbanisation into rural (<10.000 inhabitants), midsize urban (10.000–100.000 inhabitants) and urban (>100.000) inhabitants). We also asked Labour Experts at T2 for the reason(s) why clients who initially agreed to participate later decided to withdraw from the study. If they did not know, we asked the facilitators.

Acceptability

Acceptability was measured by asking participating clients in the survey to assess at T1, on a 1–10 response scale, their overall satisfaction about the facilitator, the Labour Expert, the Family Group Conference, the Return to Work Plan and the Family Group Conference method. Furthermore, they were asked to rate the role of the facilitator, the Labour Expert, the Family Group Conference and the Return to Work Plan by indicating (dis)agreement with certain statements on a five-point Likert scale: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), strongly agree (5). Examples of statements were: ‘the facilitator was neutral’; ‘the information from the Labour Expert was clear’; ‘I felt at ease during the Family Group Conference’; ‘the Return to Work Plan will improve my situation’. At T2, again using a 1–10 response scale, we asked the participating clients again about their overall satisfaction with the conference and the Return to Work Plan. Acceptability for both Labour Expert and facilitator was measured according to level of satisfaction and appropriateness; they were asked on a 1–10 response scale to describe their satisfaction with their mutual collaboration during the Family Group Conference. We also asked Labour Experts and facilitators about their satisfaction with the conference and the Return to Work Plan (1–10 scale). We asked Labour Experts whether during a Family Group Conference they had received sufficient information from the facilitator on the process, content and goals of the Family Group Conference, as well as their own roles in the process. Facilitators were asked if they had received sufficient information from the Social Security Institute, whether the questions for a Family Group Conference were clear, whether the involvement of the Labour Expert in the preparation stage was sufficient, and whether the client was well informed about the Family Group Conference. The answers were assessed using a five point Likert scale from totally disagree to totally agree. Furthermore the facilitators were asked to rate on a scale from 1 to 10 the Family Group Conference, the cooperation with the Labour Expert/Social Security Institute and the Family Group Conference plan.

Implementation

Regarding *implementation*, by means of telephone interviews at T2, data were gathered as to whether or not the Return to Work Plan had been executed and whether any adjustments in the Return to Work Plan had been made. Execution was assessed by asking ‘Did you execute the plan?’ Five answer categories were given: I don’t know (1), the whole plan has been executed (2), the plan has not been executed at all (3), the plan has been executed to some extent (4), I don’t understand the question (5). The extent of execution of the Return to Work Plan was assessed by asking ‘How many of the actions

of the plan were executed?’ Six answer options were given: more than half (1), half (2), less than half (3), I don’t know (4), other (5), I don’t understand the question (6). To assess the success of the implementation of the Return to Work Plan, clients were asked whether it had resulted in any changes. We presented participating clients with 10 statements, asking (dis)agreement on a five-point Likert scale: strongly disagree (1), disagree (2), neither agree or disagree (3), agree (4), strongly agree (5) and one answer option (I don’t understand the question (6). Implementation at the Labour Expert level was measured both at T1 and T2 by asking the experts to rate the Return to Work Plan and their own role during the Family Group Conference, also by indicating (dis)agreement with statements on a 1–5 point Likert scale: strongly disagree (1), disagree (2), neither agree or disagree (3), agree (4), strongly agree (5). Examples of statements were: ‘I have more faith in my clients’ future’, ‘the plan will work’ and ‘I am satisfied about my part in the Family Group Conference’.

Efficacy

Efficacy was measured by means of changes in perceived health and/or work status, and by analysing the Return to Work Plans during follow-up.

Perceived health was measured at T0 and T1, using the 12item Short Form health survey (SF-12) [42], a practical, reliable, valid and brief inventory of physical and mental health. SF-12 scores were recoded, standardised to a 0–100 scale and, using a syntax included in the SF-12 manual, summarised into two summary scores [42]: Physical Health Composite Scores (PCS) and Mental Health Composite Scores (MCS). Higher scores indicate better health. A PCS score 50 is indicative of lower physical health and a MCS 42 indicates lower mental health.

At T3 work status was assessed in a telephone interview with the following questions: ‘Do you work?’ (yes/no); ‘If yes, for how many hours?’; ‘Is the work temporary?’ (yes/no); ‘If yes, for how long?’; ‘Is it voluntary or paid work?’; ‘Do you think that it is because of the Family Group Conference that you are working?’ (yes/no); ‘Are you still working on the Return to Work Plan?’ (yes/ no); ‘When you are not working, what activities are you doing, for how many hours per day/week, and are these a result of the Return to Work Plan?’

To further evaluate *efficacy* the researchers (KB, JH) independently read and coded the Return to Work Plans drafted by the Family Group Conference facilitators on the following items: the main question(s) formulated by Family Group Conference participating clients, the necessary action(s) to take, and the Family Group Conference participant(s) assigned to perform these action(s). Questions formulated in the Return to Work Plans were categorized as health-, person- and environment-related, according to the International Classification of Functioning, Disability and Health (ICF) model [43].

Further for *Efficacy*, at T0 and T2 Labour Experts filled out the Participation Ladder [44], a Dutch scale for grading the level of client participation [44]. This measure, widely used by social services of municipalities in the Netherlands, rates participation on six levels: social exclusion (step 1), some social participation (step 2), participation in

organised activities (step 3), unpaid work (step 4), paid work with support (step 5) and regular paid work (step 6).

Data analysis

Quantitative data analysis

To describe outcomes on demand, acceptability, implementation and limited efficacy testing, we performed simple descriptive statistics (percentages, mean, standard deviation and range), using SPSS version 20.0 (IBM Corp. Released 2011. IBM SPSS statistics, Armonk, NY). Agreement of participants with statements was dichotomized into agree (scores 4 and 5) and disagree (scores 1–3).

Qualitative data analysis

The Return to Work Plans and interview data were analysed according to the principles of thematic analysis [45]. Return to Work Plans were coded by a mixed team of two researchers: researcher and first author KB, a male PhD student, psychologist and experienced Labour Expert; and JH, a female sociologist, research assistant and marketing researcher. The interviews were analysed by KB and PR, the latter a male health scientist with a PhD in the field of work and health, and with experience in qualitative research. Individual coders used open coding with comment functions in word processing software. Coded texts and emerging relationships between codes were discussed among the authors. Individual coding was discussed to reach consensus about the codes and emerging themes. No final member check of themes took place.

Results

Demand

The Labour Experts selected a total of twenty-eight clients eligible for a Family Group Conference. All were approached by a Family Group Conference facilitator for an intake interview and a consecutive Family Group Conference. Facilitators were unable to contact four clients. Of the twenty-eight eligible clients nine (32.1%) clients recruited by seven Labour Experts participated in an actual Family Group Conference led by a total of six Family Group Conference facilitators; see Figure 1.

The socio-demographic characteristics of the recruited clients participating and non-participating in a Family Group Conference are presented in Table 2. Participants were slightly older than non-participants (34.7 versus 32.6 years), more often female (55.6 versus 42.1%), more highly educated (intermediate education 55.6 versus 36.9%), and living more often in rural and urban settings. The participation level, as assessed by the Labour Experts, differs slightly between the two groups (2.6 versus 2.9, not in table).

Table 2. Baseline demographic characteristics of participants and non-participants in Family Group Conference.

	Participants (N = 9)	Non-participants (N = 19)
Mean age in years (SD, range)	34.7 (12.7; 19-53)	32.6 (10.2; 20-48)
Female (N, %)	5 (55.6)	8 (42.1)
Educational level		
Low	4 (44.4)	10 (52.7)
Intermediate	5 (55.6)	7 (36.9)
High	0	1 (5.2)
Urbanisation		
Rural (<10.000)	3 (33.3)	4 (21.1)
Midsize urban (10.000–100.000)	2 (22.2)	8 (42.1)
Urban (>100.000)	4 (44.4)	7 (36.8)

The Family Group Conference facilitators and Labour Experts were asked to give reason(s) why 19 clients who initially agreed to participate later decided to withdraw from the study. The reasons were diverse: six clients could not be contacted; three clients stated that their social network was too small for a Family Group Conference; facilitator 5 stated “very small social network and client refused”; facilitator 13 stated “client wanted support from the Social Security Institute but did not want to involve his own network”; three clients declined to participate due to health problems; three clients gave other activities as reasons not to participate; two clients had no trust in institutions. In the remaining two cases, the reasons for withdrawal were unknown. According to the facilitators, the main reasons for rejection of a Family Group Conference were unclear goals and expectations, resistance to network involvement, and target client’s doubt about its applicability for themselves.

Acceptability

The overall satisfaction score of participating clients about the Family Group Conference facilitator was on average 6.6 (SD 2.2; range 3–10). They all considered the facilitator to be neutral and independent. Client 15 stated: “pleasant experience. Plan is a step in the right direction,” client 19 stated: “in general positive” but also client 27 stated: “the coordinator nags too much” and client 9 stated: “coordinator has no fit with the clients.” The overall satisfaction score about the Labour Expert was on average 7.4 (SD 1.2; range 5–9). Most participating clients considered the information given by the Labour Expert to be relevant and clear. At T1 the mean overall rating by all participating clients of the Family Group Conference was 7.1 (SD 1.6; range 4–9), and at T2 the mean overall rating was 7.0 (SD 1.9; range 3–9). Eight participating clients evaluated the acceptability of the Family Group Conferences based on nine positively formulated statements (Table 3). At T1, most participating clients agreed with the 16 statements about the Return to Work Plan. The mean overall rating of the Return to Work Plan at T1 was 6.9, (SD 1.8; range 3–8), and the mean overall rating at T2 was 7.7 (SD 0.8; range 7–9).

The Labour Experts rated their satisfaction about the collaboration with the Family Group Conference facilitator with a 6.8 (SD 2.1; range 4–9). The Family Group Conference facilitators rated their satisfaction with the Labour Expert with a 6.3 (SD 2.5; range 1–10), the Return to Work Plan with a 7.1 (SD 1.4; range 6–9) and the Family Group Conference with a 7.2 (SD 1.6; range 4–9). At T1 the Labour Experts rated their satisfaction with the Return to Work Plans with a 6.6 (SD 1.68; range 3–8) and at T2 with a 6.3 (SD 2.49; range 1–8). At T1 they rated the Family Group Conference with a 7.4 (SD 0.78; range 6–8) and at T2 with a 7 (SD 1.91; range 3–9).

Implementation

In all nine Family Group Conferences, a Return to Work Plan was drafted. Three months after the Family Group Conference, six (77.8%) participating clients reported that the Return to Work Plan made in the Family Group Conference had been executed in full ($n = 3$) or to some extent ($n = 3$). One client did not know whether the Return to Work Plan had been executed and information of two clients is missing. Of the six clients who reported that the Return to Work Plan had been (partially) executed, five clients reported that half or more of the actions of the plan had been executed and one client reported that fewer than half of the plan actions had been executed. Four of six clients indicated that the Return to Work Plan made in the Family Group Conference was not later adjusted. All six clients stated that the Return to Work Plan had improved their situation. Four clients reported having more confidence in the future, asking sooner for help from their social network, having more self-confidence, and being better able to cope with their situation; see Table 4.

Some clients felt a mismatch between the approach/knowledge of the facilitator and their own situation. ‘The facilitator has no insight into the target population’, Client 3. ‘The facilitator did not connect with the target population’; ‘the approach must be more pragmatic’ Client 9.

Table 3. Participants' (n = 8) evaluation of labour experts, Family Group Conference, and Return to Work Plan directly after Family Group Conference (T1).

Statement	Disagree ^a	Agree ^b
Labour experts		
The labour expert told me what went well	3	5
The labour expert informed me of his/her concerns	3	5
The labour expert informed me of consequences if a rehabilitation plan was not made	6	2
The labour expert gave me information about possible solutions	2	6
The information given by the labour expert was important	1	7
The information given by the labour expert was clear	1	7
Family Group Conference		
I felt understood by the Family Group Conference participants	1	7
I could say and ask what I wanted	1	7
I could express my worries	1	7
I could say what I thought went well	1	7
I could work on a solution	1	7
Many new ideas were discussed	3	5
I felt at ease during the Family Group Conference	1	7
I did what I could do during the Family Group Conference	0	8
I am satisfied about the contributions of all participants ^c	0	7
Return To Work Plan		
Through the Return to Work Plan:		
I have more confidence for the future	1	7
I will be able to better cope with my situation	2	6
My situation will improve	3	5
The appointments in the Return to Work Plan:		
Are good	0	8
Are feasible	1	7
Are surprising	3	5
Are likely to improve my situation	3	5
Will help me make decisions in the future	2	6
About the Return to Work Plan:		
I will adhere to the agreements in the plan	0	8
I think others will adhere to the agreements in the plan ^c	0	7
I agree with the plan	1	7
I think it is good that the plan was made by all of us	1	7
It makes me ask sooner for help from the other participants	2	6
It made me more capable of making the right decisions	3	5
It improved my contacts with the other participants	4	4
It gave me more self-confidence	4	4

^aStrongly disagree/disagree/neutral.

^bAgree/strongly agree.

^c1 case missing.

Table 4. Participants' (n=6) opinions on changes due to Return to Work Plan, three months (T2) after Family Group Conference.

Statement	Disagree ^a	Agree ^b
Through the Return to Work Plan:		
I have more confidence for the future	2	4
I ask sooner for help from family and friends	2	4
I have more self-confidence	2	4
I'm doing better	4	2
I give help sooner to family and friends	3	3
I'm better able to make the right decisions	5	1
I have better contact with other participants in the Family Group Conference	3	3
I more often have contact with other participants in the Family Group Conference	4	2
My situation has improved	0	6
I'm better able to cope with my situation	2	4

^aStrongly disagree/disagree/neutral.

^bAgree/strongly agree.

Limited efficacy testing

Perceived health

At baseline (T0), the mean PCS was 42.1 (SD 5.9; range 36.1–50.5) and the mean MCS was 40.9 (SD 6.9; range 28.9–51.9). At T1, the mean PCS was 41.9 (SD 10.3; range 24.9–54.8) and the mean MCS was 42.9 (SD 9.1; range 31.9–56.5).

Level of participation

At T0 the mean Participation Ladder level was 2.6 for nine participating clients (SD 0.7; range 1–3). At T1, the mean Participation Ladder level was 3 for all four reported clients.

Work status

Eight participating clients were available for follow-up questions on work status six months after the Family Group Conference. A total of five out of eight had entered (voluntary) work. One client had a full time job, one client started a company of his/her own, three clients started voluntary work, one client returned to school, and one was engaged full-time in household activities. The person who started a company and the two who started voluntary work reported that their employment was due to the Family Group Conference. One client reported not being able to do any regular work.

Results from the Return to Work Plans

In all nine Family Group Conferences, a Return to Work Plan was drafted, to which in total 57 persons (on average 6.3 per Family Group Conference) from the social network of the participating client contributed. Most of the main questions formulated during the Family Group Conference were work related, for instance: 'What do I need to find suitable work?'; 'How can I use my creative talents in paid work?' In one Family Group Conference the main question was related to a personal problem: 'How can I better manage my life and make better choices?' In all Family Group Conferences actions were drawn up in response to these questions. Most actions were work related, for instance: monitor job opportunities, apply for jobs, find a relevant course, and find professional support. In two Family Group Conferences actions were both person and environment related, for instance: structure household, find transportation support, enhance self-confidence, and travel alone. In total, 43 persons (on average 4.8 per Family Group Conference) participating in the Family Group Conference, in most cases including the participant himself, were chosen to take some action. Other actors frequently assigned to take action were: partner, parents, other blood relatives, and friends. In five Family Group Conferences the actor was a professional from the Social Security Institute or a reintegration agency.

Discussion

The main findings of this study show that Family Group Conference may be a feasible approach for a selected group of persons on disability benefits. One out of three persons on full or partial disability benefit actually participated in a Family Group Conference; i.e., the degree of participation was 32.1%. Clients participating in a Family Group Conference seem to be more highly educated than clients not participating in an Family Group Conference. Between participating and non-participating clients we found slight differences in age and gender. As for acceptability, directly after the Family Group Conference the overall client satisfaction with their Family Group Conference, the Return to Work Plan, the Family Group Conference facilitator and the Labour Expert was promising. Moreover, both facilitators and Labour Experts were satisfied about the Family Group Conferences, the Return to Work Plans, and their mutual collaboration. As for implementation, almost all Return to Work Plans made in the Family Group Conferences were successfully delivered to intended recipients as planned. As for efficacy, in the period between start and finish of the Family Group Conference the results indicate a slight improvement in perceived mental health and level of participation. Six months after the Family Group Conference five clients participated in paid or voluntary work; three of them reported that this was a result of their Family Group Conference. Qualitative analysis of the Return to Work Plans showed that most questions and related problems, as well as planned actions, were work related. Furthermore, the actor most frequently chosen to take action was the participant himself, supported by family members and significant others in- and outside the family.

Our findings on the demand for Family Group Conference are more or less in line with other studies on Family Group Conference in (young) adult settings: an actual Family Group Conference took place in 38% [25] and 41.2% [37] of all eligible participants. Three clients eligible to participate stated that their social network was too small to organize a Family Group Conference. Non-existent or very poor social network was also found to be a reason for non-response in 10% of cases in the above-mentioned study [25]. One might argue that a social network with a sufficient number of significant others able and willing to provide social support is crucial for any Family Group Conference, and without it a Family Group Conference is not feasible. However, according to experts in the field interviewed in a Dutch study on the applicability of Family Group Conference in mental health care, organising a Family Group Conference is always of value to restore contact with family members. Moreover, a limited network is a particularly good reason for organising a Family Group Conference, and there is always a network that can be used, even though tired or paralyzed [23]. According to Sissel-Johansen [26] the central function of Family Group Conference for recipients of social assistance seems to be reconnecting the social network so as to reduce loneliness and increase the availability of support [26].

Three eligible clients reported that they could not participate due to reported health problems. This study does not provide information on the nature, i.e., mental or physical or both, nor on the severity of these health problems. According to experts interviewed in the aforementioned Dutch study, organising a Family Group Conference during a severe mental health crisis, like psychosis or drug misuse, is usually of limited value or even counterproductive [23]. For people with severe mental illness, Individual Placement and Support might more effectively result in paid employment and thus be preferred above Family Group Conference. Individual Placement and Support is an evidence-based approach with proven efficacy in helping people with severe mental illness to achieve steady employment in competitive jobs [46]. In contrast with Family Group Conference, Individual Placement and Support leans strongly on professionals and is therefore more expensive and seems less feasible for large groups. For the less severely disabled a Family Group Conference aimed at return to work might be an alternative.

We found an indication that clients participating in a Family Group Conference were more highly educated than clients not participating in a Family Group Conference. Although Labour Experts were informed by the researcher (KB) that recipients of work disability benefits should be invited to participate in the study regardless of their educational level, recruitment by Labour Experts may have been selective, favouring persons with a higher education to actually participate in a Family Group Conference. In the aforementioned Norwegian study among longer-term social assistance recipients, selective recruitment of participants also played a role. However, in that study social workers seemed to favour people with a low educational status [25].

Our findings on acceptability in terms of satisfaction, and on implementation, are in line with studies conducted in other settings. In those studies, satisfaction on the part of participating clients about the Family Group Conference process ranges from encouraging [47] to very positive [25,48].

As for short-term efficacy, in the period between the start and the completion of the Family Group Conference we found a small positive change in perceived mental health and level of participation of participating clients. Similar findings were reported in an intervention study among adults receiving social assistance in Norway [25]; data indicated a decrease in mental distress, anxiety and depression 22 weeks after the Family Group Conference. In our study, six months after the Family Group Conference five clients reported to be in paid employment or doing voluntary work. Three clients reported that this was a result of their Family Group Conference, although other possible factors cannot be excluded.

In all Family Group Conferences clients were supported by family members and significant others outside the family (e.g., friends). All Family Group Conferences resulted in Return to Work Plans, and analysis of these plans showed that almost all actions were aimed at return to work. It seems that the starting point in the Family Group Conferences was to help the participant to help himself get back into paid work, and to give support where necessary. Our study further indicates that involvement of the social network may have added value for vocational rehabilitation of persons on disability benefit. This is in line with findings of studies conducted in other disadvantaged groups [9–15].

Strengths and limitations

To our knowledge this is the first study to examine the feasibility of Family Group Conference to promote return to work among persons receiving work disability benefit. The study builds on an established set of key areas of focus to determine feasibility, thereby helping to determine whether Family Group Conference, as an innovative approach for persons on work disability benefit, is worth consideration for further development, as well as for more extensive research into its effectivity. A strength of our study is the use of different data sources from the perspective of clients and their social network, Labour Experts and Family Group Conference facilitators. Strong consistency was observed between these qualitative and quantitative findings.

Several limitations should be noted. As is inherent in any feasibility study, ours was limited in both scale and scope. The findings should therefore be interpreted with caution. We did not employ a comparison group, and the number of participating clients was limited. Due to small sample sizes we did not statistically test differences between participating and non-participating clients, nor changes within participating clients. The recruitment of eligible clients by Labour Experts may have been selective, favouring persons with a higher education in order to actually have a Family Group Conference. This may have resulted in selection bias, since more highly educated persons on work disability benefit are likely to return to work sooner than less educated persons [28]. The outcomes of this study may also have been influenced by the level of cultural competence of the Family Group Conference facilitators and Labour Experts in dealing with clients and their families [49]. Lack of cultural competence may, for example, have resulted in less than optimal family involvement. Finally, on some outcomes the response of clients was limited: one of the nine participating clients only filled out the survey at T0, and for five clients the level of participation at T1 was missing.

Conclusion

This study shows the potential for using Family Group Conference as an innovative approach aimed at return to work for a selected group of persons on disability benefit. Acceptability and implementation were well evaluated. As for long-term efficacy of Family Group Conference, we found small positive changes in perceived mental health and participation. All Family Group Conferences resulted in actions aimed at return to work. Based on our findings, we carefully conclude that involvement of the social network may have added value in the return to work process of clients on work disability benefit. Family Group Conference represents a promising supplementary programme to be used in activation strategies to enhance return to work of persons with disabilities. Family Group Conference warrants further testing in a larger study to assess the potential success of its implementation, and uncover and reduce possible threats to validity.

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Chapter 3

Development and evaluation of a strength-based method to promote employment of work-disability benefit recipients with multiple problems: a feasibility study

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Abstract

Background: For people with disabilities, chances to find or keep work are negatively affected by multiple problems like lower education, poverty and poor health. Furthermore, although active labour market policies proved to be effective for unemployed in general, success rates are poor for persons who are unemployed due to multiple problems. The present study aims to describe the development of a method as well as professional training to teach its application, and to assess the feasibility of method and training. The Strength-based method (CARm) aims to promote employment of work-disability benefit recipients with multiple problems.

Methods: The main principles of the Strength model were redesigned for better applicability in a population of work-disability beneficiaries, resulting in the CARm method. As part of the CARm method, a training module for Labour Experts (LEs) was developed. To assess the new designed method and training, a one-group, pre-post design was used. Data were collected from eight participating LEs, five female and 3 male, aged between 41 and 55 years and having 2–17 years working experience. We used self-report questionnaires and a semi-structured discussion meeting after the training sessions with the LEs.

Results: Eight labour experts (LEs) from the Dutch Social Security Institute participated in the study. Most LEs felt an improvement in their ability to ascertain developmental needs, opportunities and threats in the client's situation. Three months after the training, LEs almost unanimously agreed on the statements 'I expect to use the CARm method more frequently in the future' and 'I use the CARm method in daily practice whenever possible'. The overall rating for the training on a scale from 1 to 10 was 7.6 (range 7–9). The overall satisfaction with the trainers was good.

Conclusions: The CARm method and training was found to be a feasible approach to facilitate LEs working at the UWV reintegration service to support clients with multiple problems. Sufficient managerial support for participating LEs is a key factor for successful implementation of CARm. Results show that CARm is worth testing for efficacy in a future trial.

Background

In many Western welfare states active labour market policies have been introduced, aimed at integrating the unemployed in general [1], and people with disabilities in particular, into the labour market [1, 2]. Although for unemployed benefit recipients active labour market policies proved to be effective [3, 4], for persons unemployed due to multiple problems these policies are much less successful [4].

For people with disabilities, chances to find or keep paid work are negatively affected by multiple problems like lower education, poverty and poor health [5]. Studies in the United Kingdom and the Netherlands show that individuals facing multiple problems, including poor health, have fewer chances to successfully return to work (RTW) than persons only facing unemployment [6, 7]. The review by Berthoud and colleagues (2003), focusing on how having multiple disadvantages affects employment, showed that nearly 10% of the half million included adults (aged 17 to 59) have multiple problems. These adults faced at least three out of six problems: no partner, low skills, impairment due to poor health, age over 50, high regional unemployment rate and ethnic minority. A model that examined the joint effect of multiple problems showed that persons with more problems ran a greater risk of being unemployed; for example, persons with six problems had a 90% risk of being unemployed [6]. In a Dutch study among persons needing social assistance, the proportion of those facing multiple problems was estimated to be 50–70% [7]. In line with the Dutch Central Bureau of Statistics, problems were differentiated into economic (i.e. no job, financial debts), cultural (i.e. low language skills, single parent, no starter qualification), normative (i.e. contact with police and justice, domestic violence, child abuse), and psychosocial (i.e. mental health problems, addiction, poor health) problems [8].

To address labour market inequalities and encourage employment of people with disabilities, in many OECD countries a number of employment support and rehabilitation programs are available. However, although some studies showed promising results, these interventions to help people on disability benefits to return to the labour market have little success [3]. To increase their effectiveness, these interventions need tailoring to the needs and skills of the people, and recognition of the existence of multiple disadvantages and how they affect employment chances [2, 7]. Furthermore, most interventions are problem-centred, i.e. focusing on problems, and seeking expert and compensatory support for each problem separately. Research on multi-problem families [9] and psychiatry [10] increasingly confirms that activation of people's own strengths is an important tool for intervention, as they themselves may have personal and social resources, as well as strengths, to solve their problems. In the Netherlands, the Comprehensive Approach to Rehabilitation (CARE) has been developed for use by mental health care professionals [11, 12], incorporating a strengths-focused approach. Based on equivalence it aims to improve the quality of life of persons with psychological or social vulnerabilities by focusing on their strengths, helping to realize their wishes and goals, and obtaining access to their living environment and social networks. Care is based on the Strength Model of Rapp, a well-known theoretical model from the 1980's focusing on the personal qualities, talents,

and strengths of persons with psychiatric disabilities, and on their environment [10]. The model includes six principles: (1) belief that these people can recover, reclaim and transform their lives; (2) focus on the individual's strengths rather than deficits; (3) view of the community as an oasis of resources; (4) regarding the client as director of the helping process; (5) emphasis on the case manager/client relationship as primary and essential; (6) recognition of the community as the primary setting for our work. The Strength model has matured into a robust vision of mental health services, designed to facilitate a recovery-oriented partnership between client and practitioner. Although the model shows promising results its effectiveness is not undisputed. Ibrahim's meta-analysis of clinical trials [13] did not report strong evidence for the effect of the strength-based model on level of functioning and quality of life. The authors were cautious in their conclusions, as is evident in their remarks: "the number of trials is low", and "further evidence is required". A more recent systematic review of research regarding the use of strength-based approaches in mental health service settings found emerging evidence that the utilisation of such an approach improves outcomes, including hospitalisation rates, employment/educational attainment, and intrapersonal outcomes such as self-efficacy and sense of hope [14]. Two studies measuring outcomes related to employment [15, 16] found that the practical and cognitive skills needed for social and occupational/vocational functioning significantly improved in the strengths group as compared to case management services routinely delivered by the mental health center [15]. Moreover, Stanard [16] found vocational/educational outcomes to be better in the experimental strengths group than in the control group.

Although developed for use in mental healthcare settings, the CARE method may also be suitable for vocational rehabilitation and disability settings, since it contains many elements (e.g. being strength-based, focused on clients' wishes and goals, and involving activation of the environment) also likely to improve chances of re-employment of persons with multiple problems.

We therefore adapted the CARE method and developed the Comprehensive Approach to Reintegrate persons with Multiple Problems (CARm) for use by labour experts (LEs) at the Dutch Social Security Institute: the Institute for Employee Benefit Schemes (UWV). In the Dutch social security system, LEs play a key role in supporting the re-integration process of persons with a work disability and remaining workability. In general, the LE is responsible for the more complex clients with multiple problems. In current practice, in their role as work reintegration professionals, LEs focus mainly on the client and his or her limitations due to work disability. They have only limited time for contact with clients, and often only by mail or telephone. Yet people on work disability need opportunity to tell their story, and being heard may help them to reconnect with their environment [17]. The CARm methodology requires LEs to map the strengths of both the client and his/her environment, and to use these strengths to achieve the clients' goals. CARm promotes personal contact, an integrated approach, and a focus on abilities rather than on pathology. To reinforce the efforts of LEs we added two modules, both aimed at strengthening the client's motivation. As LEs are part of the social security system

they may therefore not automatically be accepted by clients in their role as supporting professionals. Techniques focused on motivation can help to remove this resistance.

In this article we describe the development of both a method and professional training to teach application of the method, and to assess their feasibility. The aim of this assessment is to determine whether the CARm intervention is appropriate for further testing in a randomised controlled trial.

Methods

The strength-based CARE method was adapted into CARm training (I), and its feasibility was investigated using Bowen's framework (II).

Development of CARm method and training

The objective of the developed method and training was to target partially disabled clients on work-disability benefit, facing multiple problems without an employer, and having remaining work capacity. The rationale of the CARm method is based on the main principles of the Strength model and consists of six steps: (1) building and maintaining a constructive helping relationship with the client; (2) collecting information and making a 'strengths assessment' with the client (this assessment can be used to gain an overview of a client's former, current and desired situations in the fields of daily life, work, social contacts and leisure); (3) helping the client to formulate his/her wishes, make choices and set short- and long-term goals; (4) helping the client to acquire necessary resources to enhance his/her capabilities; (5) helping the client to execute the plan; (6) and (after completing the process) to learn, evaluate and adjust.

We organised three brainstorm sessions to define how these six principles could be included in the CARm method and what elements of the CARE method should be included. We first arranged a meeting with the authors of the method to explain and discuss our ideas and to obtain permission to adjust the method. Having received the authors' approval we formulated a first concept of the CARm method. A second meeting was organised with five professionals with expertise in the development of reintegration programs and support of persons receiving unemployment- and work-disability benefits. In that meeting we discussed the concept of the CARm method and explained how we applied the Strength-based principles into CARm. The experts advised to focus on a specific group (i.e. recipients of work-disability benefits who had remaining work capacity), to involve LEs in the start-up phase as early adopters, and to start with a pilot study. The third meeting was organised with three UWV LEs who were eligible to be trained in the new method. These LEs were asked to reflect on the CARm method and its usability in daily practice. They endorsed the key elements of the Strength model and the CARm training itself, but they pointed out that some LEs have to adapt parts of their work routines and attitudes when using CARm in practice. Based on these meetings, the research team (KAB, BC, JLvdk) developed a final version of the CARm method. To better apply the method in a population of work-disability beneficiaries we adjusted all

terms and references related to psychiatry and psychiatric patients. An illustration taken from psychiatry was replaced by a reintegration case study from the daily practice of the first researcher (KAB), an LE as well as experienced reintegration professional. The original case study was an illustration of improved quality of life of a psychiatric patient, whereas the second case study is an illustration of the road to reintegration in work. This was more appropriate, as the overall goal of CARE is to improve patients' quality of life, and the overall goal of CARm is clients' reintegration into (paid) work. Finally, we added two modules on client-centred motivation and motivation against resistance.

CARm method

CARm is a method which enables LEs to systematically build an individual relationship with each client, aiming to support clients in their needs and to mobilise their social networks. The LE and client jointly develop a tailor-made plan for rehabilitation, aimed at work resumption. The LE drafts a *Personal Profile* of the client: information on the client's current situation, needs, experiences, strengths, abilities and skills, and an inventory of external resources in the client's social network. Based on this profile the client and LE then jointly develop a *Participation Plan* to set and prioritise goals, and to tackle the client's problems.

CARm training module

As part of the CARm method a module was developed to train LEs of UWV. This training module focused on practical implementation of knowledge and skills. During a seven-day workshop, three whole days focused on theoretical knowledge regarding the CARm method, and four half days consisted of an active training module focused on the development of practical skills. The LEs received the book *Supporting recovery* and [18], and a training manual on the CARm method, written by the research team (KAB, BC, JLVdK). To support LEs in their communication with, and especially motivation of, clients we added two modules, one dealing with tailor-made and client-centred motivation strategies, and the second dealing with motivation against resistance. The module on client-centred motivation strategies was inspired by the Situational Leadership Theory [19, 20]. This theory advocates that leaders adjust their leadership style to the levels of competence and commitment of their subordinates; leadership styles should not reflect the style of preference of the leader but the basic behaviour patterns seen in employees. Four leadership styles are distinguished: Telling (with incompetent and uncommitted employees), Selling (incompetent but committed), Participating (competent but not committed) and Delegating (competent and committed). These leadership styles are comparable to the 'frames of reference' described by Eikenaar et al. [21], which aimed to describe the professional orientations of re-integration professionals in diverse settings. Dutch training situations have provided substantial experience in applying the Situational Leadership Theory to consultancy work and client counseling and coaching, therefore this application has been included as a module in the training for LEs.

The module on motivation against resistance was based on the general insight that resistance is a normal, human reaction when people are asked to change, especially when the new situation is perceived as a threat [22, 23]. Clients who are asked to change from benefit dependency to earning an income by working may feel insecure about their work capacity and their ability to earn an income. In this module LEs were trained to recognise resistance to change as an important factor behind stagnation, and to manage this accordingly. The first draft of the training manual was sent to the department of education of UWV. Two managers/trainers, not otherwise involved in this study, assessed whether the manual corresponded with UWV policy and the profession of the LE; they also assessed the educational quality of the training method. The training manual was subsequently presented to the authors of CARE for their comments, and final minor adjustments were made. The protocol of the training program is presented in Table 1.

Feasibility of CARm method and training

Assessing feasibility

To acquire more scientific knowledge on the applicability and effectiveness of CARm in disability settings, a feasibility study is an important first step. Feasibility studies are needed to determine whether an intervention is appropriate for further testing, to assess the potential success of implementation, and to uncover and reduce possible threats to validity [24]. The CARm method was assessed primarily in gatherings of experts, but also in meetings allowing for evaluation by LE's who were attending the training.

Table 1. CARm training program: training activities and learning objectives

Day	Training activities	Learning objectives
1 (3 h) Practice	1. Trainer 1 introduces trainees to Strength-based method 2. Trainees list competencies they want to work on 3. Groups coached on how to draft <i>Personal profile</i> of clients under supervision of trainer 1	1: Trainees learn about Strength-based method 2: Trainees set goals to obtain required competencies 3: Trainees gain broader perspective on strengths and abilities of clients
2 (6 h) Theory	1: Trainees share success stories in working with clients. 2: Video shown to illustrate working based on strengths 3: Trainees interview client, under supervision of trainer 2 4. Trainees evaluate interview 5: Trainees discuss assignment: <i>Personal Profile</i>	1-3: Trainees experience focusing on clients' skills, competencies and talents rather than deficits 4: Trainees learn from other trainees, trainer 2 and client how to incorporate Strength-based method in an interview 5: Trainees learn to better draft personal client profile
3 (3 h) Practice	1: Group coaching on individual questions from trainees. 2: Trainees present final <i>Personal Profile</i> and receive feedback from group and trainer 1	1: Trainees and trainer 1 reflect on competencies of trainees 2: Trainees learn to evaluate and improve final <i>Personal Profile</i>
4 (6 h) Theory	1: Trainer 2 introduces communication strategy (Hersey & Blanchard) (Newman) (Van der Klink & Terluin) 2: Trainees work in couples or in group on practical assignments on how to communicate adequately with clients 3: Trainers help trainees to work in supportive manner to construct holistic image and set goals with client 4: Assignment to work on <i>Participation Plan</i> with a client	1: Trainees obtain skills to improve communication with client 2: Trainees learn to motivate clients and build relationships with them 3: Trainees learn to focus on strengths rather than limitations or pathology 4: Trainees learn to collaborate with client on <i>Participation Plan</i> and to apply Strength-based method in practice
5 (3 h) Practice	1: Trainer 1 guides plenary discussion and responds to individual trainees' questions about <i>Participation Plan</i> 2: Trainees present personal participation plans in the group, and receive feedback	1: Trainees obtain skills to improve <i>Participation Plan</i> 2: Trainees learn from experiences of other trainees on construction of <i>Participation Plan</i>

Table 1. CARm training program: training activities and learning objectives (continued)

Day	Training activities	Learning objectives
6 (6 h) Theory	1: Trainer 2 indicates importance of client's natural environment 2: Trainees work with a scheme to map a client's social network 3: Video illustrates a hostile and a supportive environment	1: Trainees know how to involve/activate social network of client 2: Trainees learn about importance of networks (family, professional, neighbourhood) 3: Trainees become aware of positive and negative influence of significant others
7 (3 h) Practice	1: Trainees present their process of cooperation with clients and reflect on goals formulated on first training day	1: Trainees learn from one another's developments
Homework	Activities	Aim
	1: Trainees read literature provided for training day (Wilken & den Hollander, training manual) 2: Trainees draft personal profile and personal plan of randomly chosen client	1: Trainees obtain theoretical knowledge about rehabilitation and Strength model and start with equal level of knowledge 2: Trainees provide input related to daily practice

To assess the feasibility of the CARm method and training we used a one-group, pre-post design. Data were collected with self-report questionnaires at baseline (T0; before the start of the training), directly after completion of each of the seven training days (T1-T7), directly after the end of the training (T8), and after three months (T9). A semi-structured discussion meeting with participating LEs was organised at T8 and chaired by the first author (KAB). We started the meeting with an open question to initiate the discussion, and then continued with more closed questions. At T9 a meeting of experts with the research team (KAB, BC) and the two trainers was organised to discuss any adjustments advised by the trainees.

We investigated the feasibility of the CARm method and training in line with the recommendations of Bowen et al. (2009). They identify the construct feasibility by means of a series of questions and methods [24]. For an intervention to be worthy of testing for efficacy, it must address the relevant questions within feasibility. It is also important to discard or modify those interventions that do not seem to be feasible according to data collected during the feasibility-study phase. Feasibility research in the intervention-research process is key to advancing only those interventions with a high probability of efficacy. Bowen recommends that investigators choose the area of focus that best matches the needs of the situation. In line with this recommendation we focused on aspects of feasibility which, in our view, best match the needs of the setting, community and population under study: acceptability, demand, implementation and practicality. Acceptability was operationalised as 'the extent to which CARm is judged as satisfying to LEs and trainers, and the intent to continue use'; demand was operationalised as 'the extent to which CARm is actually likely to be used by Les'; implementation was

operationalised as ‘the extent to which CARm can be successfully delivered to intended recipients in a disability setting’; practicality was operationalised as ‘the extent to which LEs are capable of using CARm in daily practice’ and as ‘the extent to which LEs can implement the CARm in daily practice’.

Setting and participants

The feasibility study was conducted in collaboration with the regional UWV office servicing the northern region of the Netherlands. Data collection for this study started in April 2015 and follow-up was concluded in October 2015. Eligible for the present study were LEs of UWV working with unemployed clients on work-disability benefit and who, according to the UWV, have work capacity. All eligible LEs were informed by their district manager through a recruitment email. Since our aim was a feasibility study with maximum interaction and response, a maximum of eight LEs could participate in the CARm training programme [25]. The first eight volunteers were included. The actual training took place in the UWV office in Groningen, the Netherlands, from April to July 2015. Trainers were two certified experts from the RINO group (see Acknowledgements). Because of the scientific evaluation, participating LEs were asked to sign an informed consent form and all data were anonymised. The CARm training was accredited by the Dutch Association of Labour Experts. According to the Medical Ethics committee of the University Medical Center Groningen, ethical approval was not necessary for this study.

Measures survey

At T0 data were collected on background characteristics of LEs: age, gender, education, professional working experience and expectations.

To measure the quality of the training program we adapted a questionnaire developed by the University Medical Center Groningen, aimed at evaluating educational programs, to include Bowen’s four key aspects of feasibility: acceptability, demand, implementation and practicality. At baseline LEs were asked their opinion about 18 propositions regarding their current work methods and dealings with clients. At T1-T7 LEs were asked their opinion about the training content, expertise and teaching skills of the trainers. They were also asked to rate each training day on a scale of 0–10 and to propose any improvements. At T8 LEs were asked their opinion on content, design and organisation of the CARm training as a whole, to rate the whole training on a scale of 0–10 and to name strong points and points for improvement. At T8 and at T9 the LEs were asked whether the training and use of the CARm method had a lasting effect on their professional working methods. Propositions were recoded from a 5-point Likert scale scored 0 (disagree and totally disagree) or 1 (agree and totally agree) and missing (not applicable). An overview of the training is given in Table 1.

Measures semi-structured discussions

The semi-structured discussion meeting at T8 aimed to inventory trainees’ overall satisfaction with the method and training and whether the training should be adjusted.

The following questions were discussed: *Were the periods between the training days sufficient for you to be able to work with your clients according to the CARm method? Has the CARm training sufficiently addressed the analysis and deployment of the social network of the client? Which key elements should be maintained and which elements should be omitted? What do you need from your employer UWV to be able to implement the CARm method in your daily practice?* In the experts' meeting any adjustments advised by the trainees were discussed with the trainers. In both meetings notes were made by the researchers (KAB, BC) and the research assistant (JH).

Statistical analysis

To describe the characteristics of participating LEs and the feasibility outcomes, we performed descriptive statistics, using SPSS version 20.0 (IBM Corp. Released 2011. IBM SPSS statistics Armonk, NY). Scores of opinions were dichotomised into 'agree' and 'disagree'.

Results

Eight LEs participated in this study. Their mean age was 47 years (range: 41–55, SD 5.6). Three LEs were male. Of the general population of LEs working for UWV, 34% are in the age category 45–54, 90% in the range of 35–64 years, and 47% are male. The baseline education of the LE is a bachelor's or master's degree followed by a one-year specialisation as LE. Of the eight participating LEs, seven had a bachelor's degree and one had a master's degree. Four LEs were educated in social work, two in economics, one in law and one in music. These education levels and different directions are in line with the whole population of LEs in the Netherlands. The average working experience as LE was 9.5 years (range: 2–17, SD 5.6). Four LEs were working in work disability benefit claim assessment and four in reintegration service.

Acceptability

Mean ratings of each training day ranged between 7.6 and 8.3. The mean overall rating for the entire training was 7.6 (range: 7–9). Of the 10 propositions regarding the quality of the training, presented immediately after the training, participants unanimously agreed on seven propositions, see Table 2.

Table 2: Acceptability of the CARm training for labour experts (n=8) immediately after the training.

Propositions	Agree (n)	Disagree (n)
The training fits well with my expectations	8	0
The training offers sufficient theoretical depth	8	0
The training offers sufficient opportunity to practice	7	1
The training offers sufficient opportunity for discussion	8	0
The discussion is informative.	8	0
I highly appreciate the training program	7	1
The prior information reflects the content well.	6	2
The training offers sufficient opportunity to ask questions	8	0
The training offers sufficient variety in teaching methods (e.g. lecture, interactive methods)	8	0
The training offers sufficient opportunity to learn different working methods	8	0

The overall satisfaction about the quality of the trainers was assessed with 9 propositions, presented at T2-T7. At T2-T6 the participants agreed unanimously on all propositions: 'In general the presentation by the trainer is properly structured', 'The trainer formulates clearly and simply', 'The trainer gives sufficient insight into the problems of the study material', 'The trainer offers training material that suits the training goals well', 'The trainer is an expert on content', 'The trainer guides the group process well', 'The trainer explains clearly', 'The trainer is accessible', 'The trainer stimulates my learning process' (not in table). At T7 one participant disagreed with one proposition: 'The trainer offers training material that suits the training goals well'.

Demand

Almost unanimous agreement on most propositions was observed. Immediately after the training LEs almost unanimously agreed on two propositions 'As a result of the training I developed (or intent to develop) a different working method' and 'I will recommend the training to my colleagues'. Three months after the training (T9) LEs almost unanimously agreed on 'I expect to use the CARm method more frequently in the future', see Table 3.

Implementation

Immediately after the training LEs almost unanimously agreed on 'I have the feeling I control new skills'. Three months after the training, LEs almost unanimously agreed on 'I use the CARm method in daily practice whenever possible'. Four LEs agreed on 'I find it difficult to make time to apply the CARm method in my daily work'; see Table 3.

Table 3: Demand and implementation of CARm for labour experts (n=8) immediately after training and three months later.

Propositions on demand	Agree (n)	Disagree (n)
<i>Immediately after the training</i>		
The training fits well with daily practice *	6	1
During the training sufficient opportunity is offered for own input	8	0
The training offers sufficient opportunity to learn practical skills	7	1
As a result of the training I developed (or intent to develop) a different working method	6	2
I will recommend the training to my colleagues *	5	2
<i>Three months after the training</i>		
I expect to use the CARm method more frequently in future	5	3
Propositions on implementation	Agree (n)	Disagree (n)
<i>Immediately after the training</i>		
I have the feeling that I control new skills	7	1
<i>Three months after the training</i>		
I use the CARm method in daily practice whenever possible	7	1
I find it difficult to make time to apply the CARm method in my daily work	4	4

* 1 missing

Practicality

LEs unanimously agreed on: 'The practical assignment can be properly executed' (practice days 1 and 3), 'The practical assignment is a proper preparation for the study meeting' (practice day 1), 'The practice assignment properly integrates theory and practice' (practice day 1), see Table 4.

LEs unanimously agreed on 'The training goals are clearly formulated' (theory day 1), 'The study material fits well with the training goals' (theory days 1 and 2), 'The study material fits well with daily LE practice' (theory day 2), and 'The provided literature fits well with the study meeting' (theory days 1 and 2), see Table 4.

Three months after the training all LEs expected that the use of the CARm method would improve the professional quality of their work. Most LEs felt an improvement in their ability to ascertain developmental needs, opportunities and threats in the client's situation. Furthermore, they felt better able to actively involve the client and his or her social network in the participation process, and to manage the process rather than the transfer of knowledge (not in table).

Table 4: Practicality of CARm training and program for labour experts (n=8) on practice and theory days per training day.

Propositions	Practice day				Theory day		
	1	2	3	4	1	2	3
	Agree (n)	Agree (n)	Agree (n)	Agree (n)	Agree (n)	Agree (n)	Agree (n)
The practical assignment is clearly formulated	6	7*	6*	7	-	-	-
The practical assignment can be properly executed	8	7*	7*	8	-	-	-
The practical assignment is a proper preparation for the study meeting	8	7*	7*	6*	-	-	-
The practice assignment properly integrates theory and practice	8	7*	6*	7*	-	-	-
The training goals are clearly formulated	-	-	-	-	8	7	7*
The study material fits well with the training goals	-	-	-	-	8	8	6*
The study material fits well with the daily LE practice	-	-	-	-	7	8	6*
The provided literature fits well with the study meeting	-	-	-	-	8	8	6*

* 1 missing value

Discussion meeting

During the semi-structured discussion meeting immediately after the training and the open questions: give 2 good points of the training and 2 points for improvement, the LEs expressed concerns about implementation. LEs believed the CARm method to be best suited for clients with complex problems and to require more time with a client than care as usual: time not only to attend the training and learn the method, but even more time with the client, to give them the opportunity to tell their story. Broad management support is therefore vital to implement the method. One of the LEs stated, "I wonder if I have enough time for this approach". LEs also stated that social rehabilitation and work reintegration were not always clearly distinguished in the training. Quotes: "the emphasis on psychiatry is too strong", "for me the aim is unclear; is it paid work or just participation?" and "I miss the link with work". LEs advised making more use of learning materials in the training, such as videos focusing on work reintegration ("I miss the link with work"). Furthermore, LEs stated that the CARm method fits better in the reintegration service of UWV (which allows multiple client contacts), than in the claim assessment service (which allows only onetime client contact). LEs stated that future CARm training should preferably involve LEs working in the UWV reintegration service.

Discussion

Main findings

This article describes the development of an innovative comprehensive approach for reintegration of persons on disability benefits and facing multiple problems (CARm), and its feasibility for intended use by LEs of UWV. As for the acceptability of the CARm training, the overall rating by participating LEs was 7,6 on a 1–10 response scale. With respect to training feasibility, the participants agreed unanimously on most propositions regarding the quality of the trainers. As for demand, most LEs stated that after the training they developed (or intended to develop) a different working method and expected to use the CARm method more frequently in the future. As for implementation (method feasibility), most LEs stated that they used the CARm method in daily practice whenever possible, although some found it difficult to make time to apply the method in their daily work. During the discussion meeting organised at the conclusion of the training, LEs further expressed concerns regarding implementation. They considered broad management support to be necessary for them to be able to apply CARm in daily practice and to make the method feasible. Further, regarding both theoretical and practical content, the training's practicality was rated positively, its goals considered clear, and its study material found to fit well with the training goals.

Strengths and limitations

To our knowledge our study is the first to study the feasibility of a strength-based and innovative integrated approach aimed at RTW of persons with multiple problems, such as unemployment combined with a work disability. Although most interventions are problem-centred, activation of people's own strengths has been shown to be an important tool in intervention [9]. An important strength in the development of our study is its firm reliance on the internationally established Strength model of Rapp [26] and our collaboration with developers of a similar method and training, experts on reintegration instruments for unemployed persons on disability benefit, and practicing LEs of UWV. Another strength is the use of the framework of Bowen [24] to study the feasibility of CARm, as well as the use of a pre-post design.

As is inherent to any feasibility study, this study is limited in scale, scope and sample. Our results should therefore be interpreted with caution. With regard to generalizability, there is a chance that the sample included more intrinsically motivated LEs since they participated voluntarily, and could be characterised as innovators [27]. In addition, participating LEs were only recruited in offices of UWV servicing only the northern region of the Netherlands. This limited (non-representative) sample of LEs may have considered the CARm method and training to be more feasible than would non-participating LEs. Second, the questionnaire used to measure the quality of the training program and the feasibility has not been validated prior to the study, which may affect the quality of our findings.

Comparison with other studies

This is the first study to investigate the feasibility of an integrated approach, based on the Strength model of Rapp, to be used in a social security setting and aimed at RTW of unemployed persons with disabilities. We therefore relate the results of this study to those conducted using a similar strength-based method in other populations, and to studies using another (but comparable) method in similar populations.

The feasibility of rehabilitation methods based on the Strength model is well established in mental health/psychiatry settings. This is illustrated by its association with positive results on different outcomes including decreased hospitalisation, improved quality of life, and improved social functioning [16, 28–30]. During the conduct of our study the results of another study, one on the effectiveness of CARE, a Strength-based method, were published [31]. Although this study reported an improved quality of life for clients, the difference between the intervention and control groups was not significant. Moreover, in our opinion the findings in this study are not generalisable to our study due to other sample characteristics, context and outcome measures. This study focused on a group of longstanding and severe impairments, especially severe mental illness (more than 72% of subjects were in sheltered living). Our sample included a less severely impaired and more heterogenic group of clients, most of whom were not in sheltered living. Where the CARE method (based on strength) has a strong and rather narrow clinical focus on mental health and improvement of quality of life, the adapted CARm method has a much broader biopsychosocial focus on participation in society (including work).

We promote more time for the client to tell his or her story in order to assess his/her need to participate in work. In line with the identity work process of van Hal et al. we believe that it is important that a client feels listened to and taken seriously.

A reintegration program more or less comparable to the CARm method is the participatory supportive RTW program [32]. This program is a complex intervention combining a participatory approach, in which unemployed persons on sick-leave develop an action plan for RTW with support of the LE of UWV, receive integrated care, and are placed in a competitive job. A process evaluation of that program for unemployed workers sick-listed due to musculoskeletal disorders showed good feasibility [32]. Execution of a comparable program for unemployed workers sick-listed due to a common mental disorder was less successful compared to similar programs evaluated in earlier studies [33].

Implications for research and practice

Our study indicates that the CARm method might be an innovative comprehensive approach for LEs to support persons on disability benefits and facing multiple problems during their reintegration process, but strong management support is needed in advance. The study results will serve as a foundation for further research on the effectiveness of the CARm method, using a randomized-controlled-trial design (Dutch TRIAL register NL5626).

Conclusion

The CARm method and training was found to be a feasible approach to facilitate LEs working in the UWV reintegration service to support clients with multiple problems. Sufficient managerial support for participating LEs is a key factor for successful implementation of this method, and thus for its validity. CARm is worthy of testing for efficacy in a future trial.

Abbreviations

CARe: Comprehensive approach of rehabilitation; CARm: Comprehensive approach to reintegrate persons with multiple problems; LE: Labour expert; OECD: Organisation for economic co-operation and development; RTW: Return to work; UWV: Dutch social security institute: the institute for employee benefit schemes.

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Chapter 4

Prevalence, types, and combinations of multiple problems among recipients of work disability benefits

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Abstract

Purpose: For persons on disability benefits who are facing multiple problems, active labour market policies seem less successful. Besides health problems, these people perceive personal, social, and environmental problems. Since very little is known about these “non-medical” problems our aim was to explore the prevalence of clients experiencing multiple problems, the types and number of perceived problems, combinations of perceived problems, and associated characteristics in a group of work disability benefit recipients.

Methods: We performed a cross-sectional study, using self-reported data on perceived problems and socio-demographics, and register data from the Dutch Social Security Institute on diagnosed diseases and employment status. A convenient group of labour experts recruited eligible clients on work disability benefit.

Results: Of the 207 persons on work disability benefit, 87% perceived having multiple problems. Most reported problems were related to physical (76%) or mental (76%) health. Health problems most frequently occurred together with a mismatch in education, financial problems, or care for family members. Clients with lower education experienced significantly more problems than clients with an intermediate or high educational level.

Conclusions: Clients with multiple problems face severe and intertwined problems in different domains of life, and need tailored multi-actor work disability management.

Background

To improve the labour market prospects of persons with disabilities, over the past decades several countries within the Organisation for Economic Cooperation and Development have reformed their disability programs. These programs are designed to foster labour market integration of people who, due to illness or disability, face challenges in staying or (re-)entering in the workforce [1]. So-called active labour market policies have proved to be effective for unemployment benefit recipients. However, for persons on disability benefit, or unemployed people facing multiple problems, these policies appear to be less successful while these specifically focus on return to work instead of using a more holistic way of supporting people, and addressing an integrated approach at individual, sociostructural, and environmental level [2,3]. Besides health issues, they are often faced with personal difficulties such as relational, financial, domestic, addiction, and/or educational problems [4]. Often, the difference between long-term beneficiaries (unemployed for longer than 12 months in the Netherlands [5]) and short-term beneficiaries is the presence not just of a single problem but of a cluster of problems. Moreover, most of these barriers for return to work seem to interact with each other [6]. Studies in the UK and in the Netherlands show that for individuals facing multiple problems, including poor health, the probability of successfully returning to work is lower than for persons facing unemployment only [7,8]. These studies also reported a clear negative association between the number of problems and having paid employment.

In general, experiencing interacting multiple barriers to employment is in itself the greatest barrier, rather than the type of problems [9], as people often do not know where to begin, and there is no single solution for return to work. People with multiple problems seem to get into a vicious circle of solving one problem only to be confronted with the next [6]. However, literature adequately addressing multiple problems among disability claimants is scarce. Furthermore, the concept “multiple problems” is defined and described differently in various studies, referred to as multiple barriers, multiple disadvantages, numerous problems, or just problems [7,8,10–14]. To comply with national studies, the current definition of multiple problems was used: there are multiple problems in persons when they have to deal with two or more related and possibly reinforcing problems for a longer period of time, and the person concerned is unable to develop and conduct adequate management with regard to control or solve the problems, resulting in problematic participation in society and labour market [8].

It is important to gain more knowledge about the impact of multiple problems on work disability recipients, especially since identifying barriers can actually provide an incentive for action, and helping disadvantaged clients to address barriers more effectively can lead to improved outcomes for them [15,16].

The aim of this study is to explore the prevalence of clients experiencing multiple problems, the types and number of perceived problems, combinations of perceived problems, and associated characteristics in a group of work disability benefit recipients.

Methods

Design

The current study is a cross-sectional study using baseline data from the longitudinal Comprehensive Approach to Reintegration for clients with multiple problems study (CARm study) [14]. The CARm study is a randomised trial to evaluate the effectiveness of a training for labour experts to improve work participation by clients with multiple problems. All participants provided written informed consent. The Medical Ethics Committee of the University Medical Center Groningen (UMCG), the Netherlands, approved recruitment, consent and field procedures (ref. M16.194601). The trial, “The effectiveness of the CARm training for labour experts to improve work participation of clients with multiple problems”, was registered at the Dutch Trial Register (NTR5733).

Participants

For the trial, disability benefit recipients who met the following criteria were included: clients who have been granted for a work disability benefit and have been assessed with residual work capacity, but are unemployed or not working the complete number of hours according to their residual work capacity, having an age of 18–65, and being able to understand and write Dutch.

Recruitment

Recruitment took place in two stages. First, we had to recruit labour experts willing to participate in the trial. In the Dutch social security system, labour experts play a key role in supporting the re-integration process of persons with a work disability and remaining work capacity. In general, disability benefit recipients are assigned to a labour expert when they are in need of support for their participation and reintegration in work, resulting in the labour expert being responsible for the more disadvantaged and complex clients with multiple problems.

Second, these labour experts had in turn to recruit clients eligible to participate in the trial.

To recruit labour experts, we informed managers of The Dutch Social Security Institute for Employee Benefit Schemes (UWV) about the study. The managers selected and informed a contact person per district. These contact persons then were asked to forward an invitation, written by the researcher to all labour experts in their district, to participate in the study. In total $n=353$ labour experts (within 11 districts in the Netherlands) were addressed for participation. The inclusion period was between February and March 2016, and ended after 40 labour experts had signed up for the study. During a meeting, all included labour experts were then further informed about their role in this study.

Participating labour experts were asked to recruit participants from among their clients, and then to inform those who met the inclusion criteria about the study.

From clients interested in participating in the trial, labour experts then collected name, address, and e-mail address and sent these to a research assistant. The research assistant then sent to each participant a letter providing more detailed information about the study,

along with a consent form and the first questionnaire. After returning the informed consent form, participants were included in the study. Clients were recruited by labour experts between April and December 2016.

Measures

For this study, we used data from a self-reporting questionnaire, including items on perceived problems and socio-demographics. We derived diagnosed diseases and employment status from register data of the Dutch Social Security Institute: the Institute for Employee Benefit Schemes (UWV).

Perceived problems, severity, and multiplicity

We assessed perceived problems using a self-constructed questionnaire, asking the participants if they experienced problems in the following areas: (1) physical health, (2) mental health, (3) financial problems, (4) care for family or children, (5) educational mismatch (too low or not appropriate), (6) problems with the Dutch language, (7) problems with police or justice, (8) housing, addiction, and (10) domestic violence. These areas were derived from the categories of multiple problems, selecting the problems most suitable for the target population out of the four domains (psychological problems, cultural problems, economic problems, and normative problems) as reported by Statistic Netherlands (CBS) [8]. For each reported problem, participants were asked to score the severity of their problems on a four-point Likert scale: (1) no barriers, (2) mild barriers, (3) moderate barriers, and (4) severe barriers. Perceiving problems (yes/no) were defined as experiencing mild to severe barriers on an item with a score of 2 or higher. Multiple problems (yes/no) were defined as experiencing two or more problems.

Covariates

Socio-demographic characteristics included gender, age, living status, educational level, and paid employment. All data, except employment status, were collected with a self-reporting questionnaire. Living status was operationalised with the question: are you living alone or living together with others. Educational levels were categorised as low (elementary, preparatory middle-level), intermediate (middle-level applied; higher general continued), and high (university applied sciences; research university). Paid employment was measured using data on gross wages and social benefit pensions from the Dutch tax register, which were available through data linkage with Polis register data from UWV. Data on these income characteristics were available on monthly basis with a follow-up period of one year from the time of enrolment in the CARm trial. Paid employment was dichotomised into (yes/no) regarding receiving income from employment according to the register data of UWV during the month of the study inclusion.

Data on diagnoses were retrieved from the register data provided by UWV. When clients apply for disability benefits, insurance physicians use the Dutch Classification of Occupational Health and Social Insurance (CAS) to categorise diagnoses, derived from the International Statistical Classification of Disease and Related Health Problems

[17] (ICD-10). The CAS is based on the International Statistical Classification of Disease and Related Health Problems (ICD-10), a medical classification list from the World Health Organization [18]. During the medical disability assessment, insurance physicians can list up to three disorders. In this study, we used only the primary diagnose, the one causing the most important limitations to being able to work according to the insurance physician. For generalisability reasons, diagnoses were clustered into four groups: somatic diseases (e.g., cardiovascular disorders and lumbar disc disorders), intellectual disabilities (e.g., mild mental retardation (IQ range 50–69)), psychiatric disorders (e.g., depressive episodes), and developmental diseases (e.g., autism spectrum disorders).

Analyses

To analyse the number, type, and severity of perceived problems we used descriptive statistics (frequencies, percentages, means, and standard deviations). To analyse combinations of perceived problems, we visualised the combinations in a matrix, and in flow chart structures. We presented the most informative structure, based on frequency; this means starting off from perceived mental and/or physical problems and the three most reported additional perceived problems, up to three levels. Furthermore, we dichotomised the diseases diagnosed by the insurance physician as primarily physical or mental. We conducted subgroup analyses, using frequencies to explore whether the perceived additional problems were similarly distributed in both diagnosis groups.

We analysed associations of age, gender, educational level, living circumstances, paid employment, and type of diagnosed disease with the number of perceived problems, using univariable and multi-variable linear regression analyses. We selected all variables with a $p < 0.20$ in the univariable analyses for multivariable linear regression analysis, as stricter p values can fail in identifying variables known to be important [19]. In the multivariable model, we used $p < 0.05$ to interpret as statistically significant. For all analyses, we used the statistical package SPSS version 25.0 (SPSS Inc., Chicago, IL).

Results

In total, 40 labour experts approached 418 eligible clients. After sending the study documents, 207 clients of 38 labour experts (range 1–9 clients per labour expert) provided informed consent, returned the questionnaires, and were included in the study. The study sample consisted of 95 male clients (46%), with a mean age of 36 years (SD 13.0). One-third (33%) were low educated, 35% lived alone, and 14% were in paid employment. Most clients were diagnosed with a somatic disease (35%) or a psychiatric disorder (31%), followed by developmental disorders (15%) and intellectual disabilities (14%) (Table 1).

Table 1. Participant characteristics

Characteristics	Total (n=207) ^a n (%)
Gender (male)	94 (45.4)
Age (mean±SD)	35.6 ± 13.0
Educational level	
Low	68 (32.9)
Middle	99 (47.8)
High	37 (17.9)
Living alone	71 (34.8)
Diagnosis	
Intellectual disabilities	30 (14.5)
Developmental disorder	32 (15.5)
Psychiatric disorders	65 (31.4)
Somatic diseases	72 (34.8)
Paid work (yes)	29 (14.0)

^aDue to missing values per variable, numbers do not always add up to n=207).

Type and severity of perceived problems

Of the 207 included clients, 156 (76%, two missing value, n=205) perceived physical problems, 49 (24%) perceived no physical problems. Furthermore, 156 (76%, one missing value, n=206) perceived mental problems and 50 (24%) perceived no mental problems. In addition, 57% perceived an educational mismatch, 43% perceived financial problems, 38% experienced barriers due to care for family, 15% perceived housing problems, 13% perceived problems with the Dutch language, 11% problems with addiction, 4% problems with police or justice, and 3% because of domestic violence (Table 2).

Table 2. Type and number of perceived problems.

Perceived problems	Total (n=207) ^a n (%)
Number of perceived barriers (mean±SD)	3.4 ± 1.7
Physical health	156 (76.1)
Mental health	156 (76.1)
Financial problems	89 (43.2)
Care for family	78 (37.9)
Educational mismatch	115 (56.7)
Dutch language	27 (13.1)
Police or justice	9 (4.4)
Housing	31 (15.0)
Addiction	23 (11.2)
Domestic violence	6 (2.9)

^aDue to missing values per variable, percentages might differ and numbers do not always add up to n=207).

About a quarter of the participants (25%) with physical health problems rated these problems as severe, 19% perceived their mental health problems as severe, and 16% perceived problems regarding an educational mismatch as severe (Figure 1).

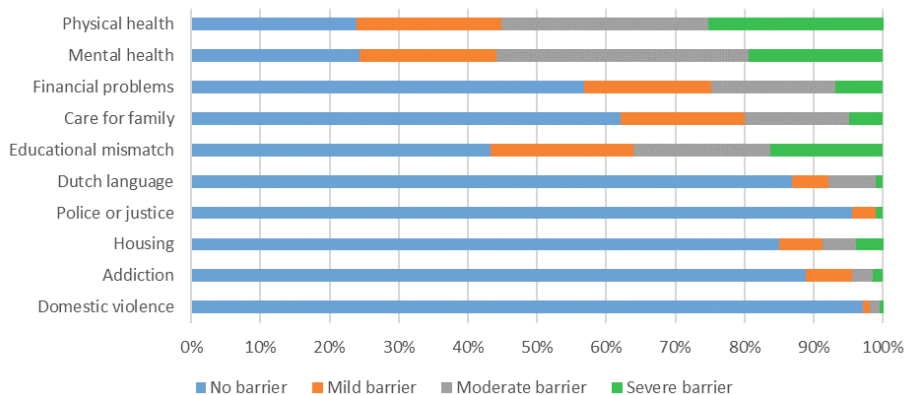


Figure 1. Severity of perceived problems (n=207).

Number and combinations of perceived problems

A total of 179 (87%) participants reported multiple (two or more) problems. On average, three (1.7 SD) problems were perceived, and 12% reported having six or more problems (Figure 2). We found several combinations of perceived problems.

Of the 191 clients with mental and/or physical problems, 106 (55%) also perceived a mismatch in education, 85 (45%) perceived financial problems, and 75 (39%) perceived problems due to care for family (Figure 3). When looking separately at the subgroup of participants with only mental or physical problems, we found similar patterns. Although not many participants perceived problems caused by domestic violence (n 6), all of those who did perceived a 100% combination of additional problems with mental health, finances, and educational level (see Table 3 for more details). Although 204 participants were diagnosed with a mental or physical disorder, despite their diagnosis 12 participants (6%) within this group reported no barriers due to these disorders. Of the 12, 75% experienced problems due to mismatch in education and 33% because of financial problems (Supplementary Figures).

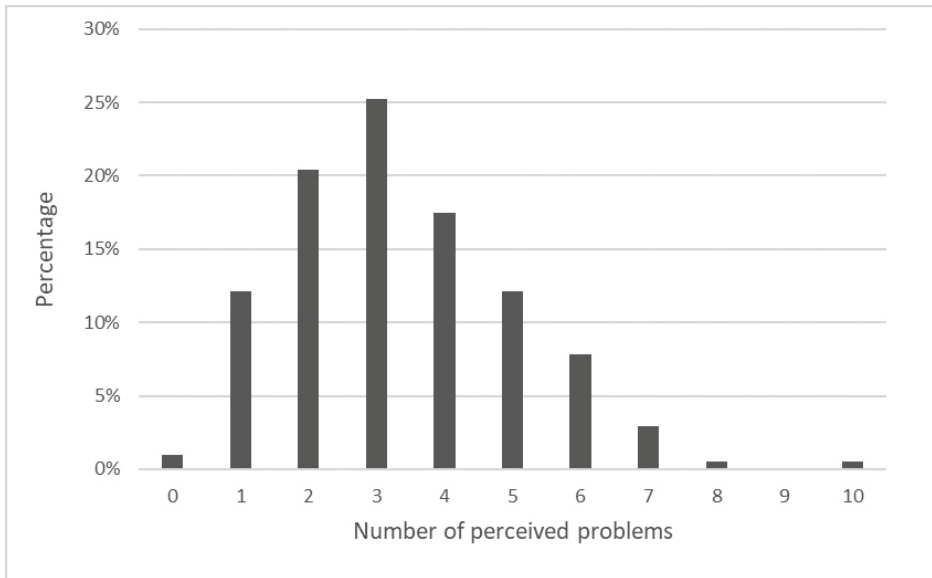


Figure 2. Prevalence of perceived problems (n=207).

Associations with number of perceived problems

In the univariable analyses, we found male gender, an intermediate or high educational level, and developmental disorders to be associated with a lower number of perceived problems. In the multivariable analysis, we found significant association of intermediate educational level (B=-0.717; 95% CI -1.234 to -0.200), and high educational level (B=-1.347; 95% CI -2.030 to -0.664) with a lower number of perceived problems (see Table 4).

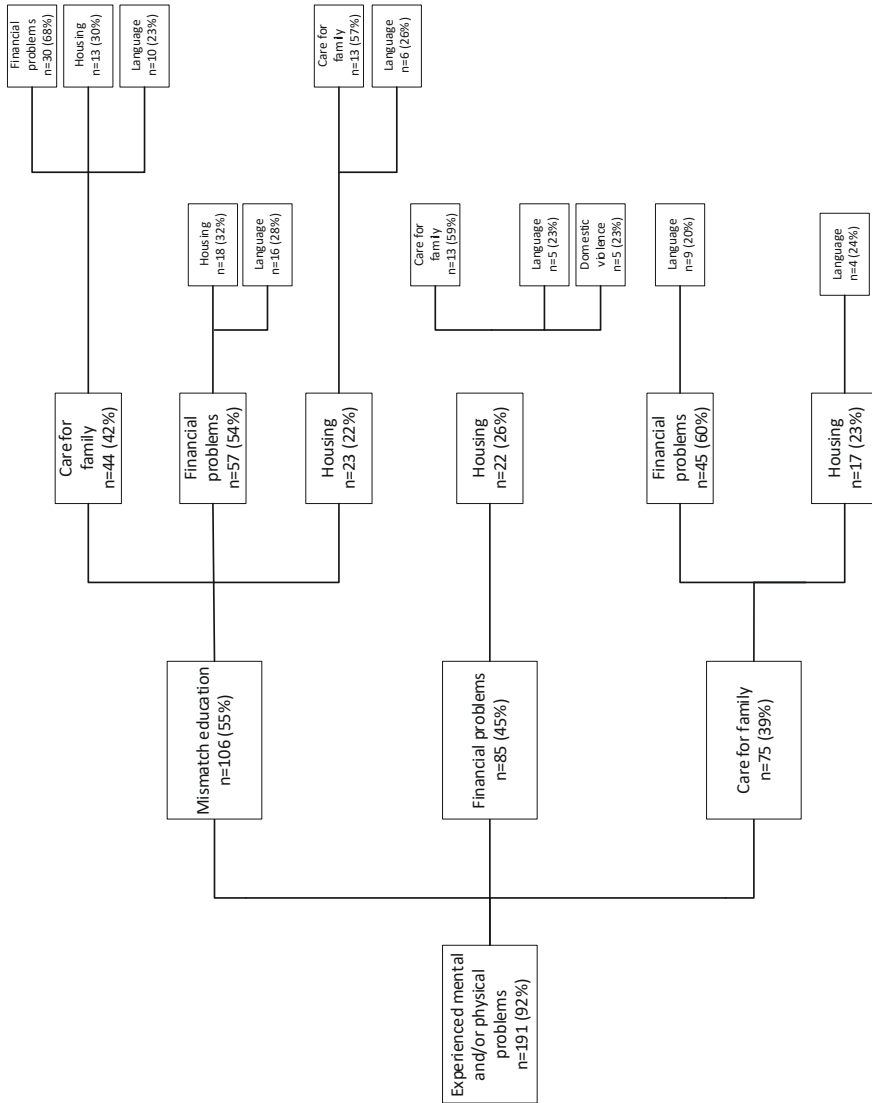


Figure 3. Most frequent combinations of problems.

Table 3. Heat map with additional problems (n=207)^a

Perceived problems	Physical health n (%)	Mental health n (%)	Financial problems n (%)	Care for family n (%)	Educational mismatch n (%)	Dutch language n (%)	Police or justice n (%)	Housing n (%)	Addiction n (%)	Domestic violence n (%)
Physical health (n=156)	-	119 (76.3%)	74 (47.7%)	64 (41.0%)	87 (55.8%)	20 (12.8%)	6 (3.8%)	25 (16.0%)	15 (9.6%)	5 (3.2%)
Mental health (n=156)	119 (76.3%)	-	75 (48.1%)	63 (40.4%)	87 (55.8%)	25 (16.0%)	7 (4.5%)	28 (17.9%)	20 (12.8%)	6 (3.8%)
Financial problems (n=89)	74 (83.1%)	75 (84.3%)	-	47 (52.8%)	59 (65.3%)	19 (21.3%)	8 (9.0%)	24 (27.0%)	10 (11.2%)	6 (6.7%)
Care for family (n=78)	64 (82.1%)	63 (80.8%)	47 (60.3%)	-	46 (59.0%)	11 (14.1%)	5 (6.4%)	17 (21.8%)	8 (10.3%)	4 (5.1%)
Educational mismatch (n=115)	87 (75.7%)	87 (75.7%)	59 (51.3%)	46 (40.0%)	-	24 (20.9%)	5 (4.3%)	24 (20.9%)	16 (13.9%)	6 (5.2%)
Dutch language (n=27)	20 (74.1%)	25 (92.6%)	19 (70.4%)	11 (40.7%)	24 (88.9%)	-	4 (14.8%)	7 (25.9%)	5 (18.5%)	3 (11.1%)
Police or justice (n=9)	6 (66.7%)	7 (77.8%)	8 (88.9%)	5 (55.6%)	5 (55.6%)	4 (44.4%)	-	4 (44.4%)	2 (22.2%)	2 (22.2%)
Housing (n=31)	25 (80.6%)	28 (90.3%)	24 (77.4%)	17 (54.8%)	24 (77.4%)	7 (22.6%)	4 (12.9%)	-	3 (9.7%)	5 (16.1%)
Addiction (n=23)	15 (65.2%)	20 (87.0%)	10 (43.5%)	8 (34.8%)	16 (69.6%)	5 (21.7%)	2 (8.7%)	3 (13.0%)	-	3 (13.0%)
Domestic violence (n=6)	5 (83.3%)	6 (100.0%)	6 (100.0%)	4 (66.7%)	6 (100.0%)	3 (50.0%)	2 (33.3%)	5 (83.3%)	3 (50.0%)	-

Note: Colors and percentages are based on the number of persons perceiving the problems in the first column. ^aDue to missings per variable, numbers do not always add up to n = 207.

Table 4. Univariate and multivariate linear regression associations between sociodemographic characteristics and number of perceived barriers.

Variable	Univariate analysis		Multivariate analysis	
	<i>B</i>	95% CI for <i>B</i>	<i>B</i>	95 CI for <i>B</i>
Gender (female=ref)	-0.375*	-0.843 to 0.092	-0.359	-0.820 to 0.102
Age	-0.001	-0.019 to 0.017		
Educational level				
Low (ref)	-	-	-	-
Middle	-0.721**	-1.221 to -0.220	-0.717**	-1.234 to -0.200
High	-1.375**	-2.026 to -0.724	-1.3457**	-2.030 to -0.664
Living alone (no=ref)	-0.258	-0.746 to 0.230	-1.347**	-2.030 to -0.664
Diagnosis				
Somatic diseases (ref)	-	-	-	-
Intellectual disorders	0.333	-0.371 to 1.038	0.082	-0.615 to 0.779
Developmental disorders	-0.615*	-1.303 to 0.074	-0.459	-1.144 to 0.227
Psychiatric disorders	0.236	-0.319 to 0.791	0.297	-0.249 to 0.844
Paid employment (no = ref)	-0.286	-0.954 to 0.381	-	-

* $p < 0.20$. ** $p < 0.05$.

Discussion

Main findings

The aim of this study was to explore the prevalence, type, number, and combinations of problems experienced by disability benefit recipients, and to study the associations of sociodemographic characteristics and type of diagnosis with the number of perceived problems. The prevalence of multiple problems was high; 87% of the participants reported at least two problems, and the average number of problems was three. Most reported problems were related to physical health, mental health, and/or an educational mismatch. Up to 25% of participants experienced these problems as a severe barrier. The most frequent combinations of health problems occurred with a mismatch in education, financial problems, or care for family members. In the multivariable model, the number of problems perceived by participants was negatively associated with educational level; i.e., higher educated participants perceived fewer problems.

Comparison with other studies

To our knowledge, this study is the first to report the percentage of disability claimants who face multiple problems, as well as the number and combinations of problems they perceive. These findings are in line with a qualitative study which showed that sick-listed unemployed workers perceived several barriers to returning to work [6]. This study also reported that not only health problems, but also low education, financial problems, and lack of childcare facilities were perceived as barriers [6].

Only a small percentage of our study population perceived problems with domestic violence. However, in this specific group, almost all perceived additional problems with physical and mental health, finances, educational mismatches, and housing, and about half of them perceived problems with care for family, Dutch language, and addiction. Although the group who perceive problems with domestic violence is small, it seems to be a very problematic group, with people who experience many problems in different facets of their lives, including work [20,21].

When exploring associations with the number of perceived problems, we found that higher educated recipients of benefits perceive fewer barriers. This is in line with earlier research, showing that those with lower educational levels encounter more barriers to employment [13,22,23]. A possible explanation for this may be that higher educated people act sooner when a problem occurs. It is known from the literature that higher education is associated with social problem-solving [24]. Another plausible explanation might be that higher educated people usually have healthier lifestyles, better working conditions, they act sooner when a problem occurs and are better able to adjust their working conditions [25,26]. Another possible explanation may be that some of the problems in our questionnaire are known to be associated with lower educational levels. People with higher education usually have a higher household income [13], and therefore fewer financial problems. On the other hand, housing is a typical problem for people receiving a low income [27]. Educational mismatches are also more often perceived as problems by lower educated unemployed workers [22,23].

Strengths and limitations

This study provided insight into personal and social environmental barriers towards working or participating in society beyond the medical diagnose of an insurance physician. We were able to include a geographically representative sample of clients from all regions in the Netherlands, both rural and urban, and from economically strong and less strong regions. Furthermore, for employment status and diagnosed disease we used register data, which are more objective than self-reported data. To measure multiple problems we unfortunately lacked a validated instrument, and therefore had to use a self-constructed questionnaire, but the constructed questionnaire, based on areas reported by Statistics Netherlands [8], seemed to work well in quantifying the amount and severity of problematic areas. Due to selection bias, we probably underestimated problems with the Dutch language, as participants had to be able to understand, read and write Dutch. Additionally, recruitment of participants was performed by labour experts, therefore, only disability benefit recipients assigned to labour experts were included in our study. These clients are in need for extra support with regards to participation and reintegration to the labour market, due to their disadvantaged situation. Therefore, the results of our study are only generalisable to a subgroup of clients receiving work disability benefits, i.e., those who are referred to labour experts for support on their participation and reintegration.

Implications for practice and research

To encourage (re)employment of people receiving work disability benefits, recognition of the existence of multiple problems and how they affect employment chances is necessary [1,8].

Although in social security settings, new instruments have been developed to assess individuals' work capacity [28–30], the focus is still mainly on barriers associated with health issues and not on issues like domestic violence, financial problems, and problems due to care for family. Involving multiple institutions and disciplines in work capacity assessments could lead to a broader overview of the perceived problems of the claimants, although it would place high demands on cooperation and data sharing by all those involved [14].

A number of employment support and rehabilitation programs are available to help people on disability benefits return to the labour market. Some studies of these programs showed promising results [31]; however, particularly studies involving disadvantaged populations (lower educated, poor health) have reported poorer outcomes and lower levels of adherence [32,33]. There are strong suggestions that individually focused “downstream” interventions, such as self-management support, have limited effectiveness in these groups [34] because they fail to take into account potential barriers within the person's wider social context (e.g., literacy, resources, and social supports) [35–39]. As clients with multiple problems face severe and intertwined problems in different domains of their lives, interventions tailored to their specific needs and wishes might be more effective than traditional programs [14]. Such interventions, developed to match the person's experienced barriers, would involve multi-actor work disability management, with all the challenges of mutual cooperation [40].

The limited availability of scientific evidence seems to warrant further research on the impact of multiple problems and how these interact. Currently, no validated questionnaire to measure multiple problems is available. Although our constructed questionnaire, based on areas as reported by Statistics Netherlands [8], seemed to work well, in future research it is recommended to develop a validated questionnaire to measure multiple problems, which can also be used in other studies. Fundamental work is needed to further build a theoretical framework and validate measures to assess multiple and combined problems. Practice based scientific research should focus on what works for whom, and develop interventions that tackle the complexity of multiple problems.

Conclusions

This study showed, among clients on work disability benefits, a high prevalence of perceived multiple problems. Along with physical and mental health problems, subjects frequently reported problems with mismatch in education, finances, and care for family. In addition to the medical diagnosis of the insurance physician, clients perceive a range of personal and social environmental barriers that may hinder reintegration. Since these problems are diverse, clients with multiple problems on work disability benefit might be better off with a more tailored reintegration approach, aimed specifically at their needs and wishes. A focus only on physical or mental disorders is too narrow. Since clients experience a variety of personal, social, and environmental factors which obstruct participation in work, a more integrated, individual approach involving multi-actor work disability management might be more successful.

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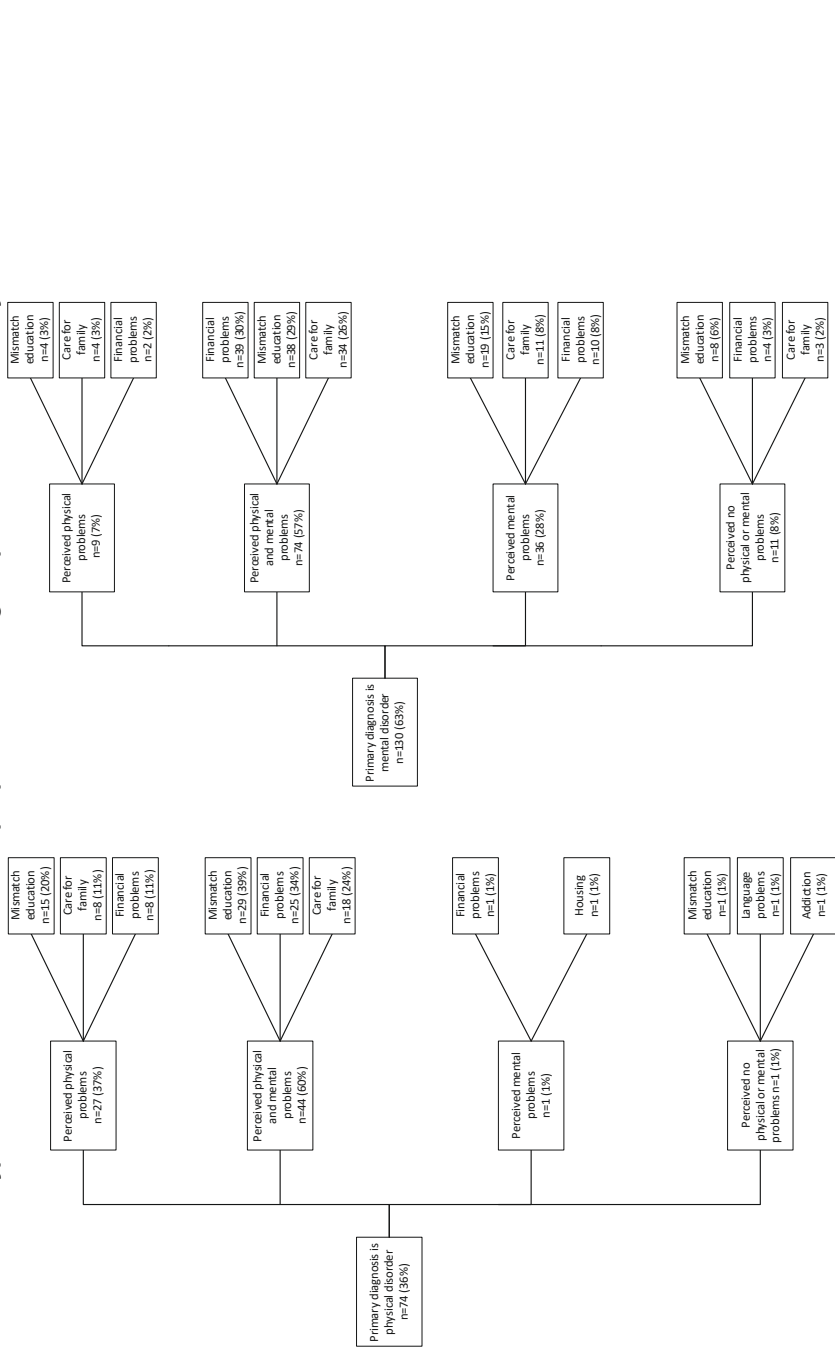
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Supplementary material

S1. Prevalence, types, and combinations of multiple problems among recipients of work disability benefits





Chapter 5

Comprehensive approach to reintegration of disability benefit recipients with multiple problems (CARm) into the labour market: results of a randomized controlled trial

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Abstract

Purpose: Although most clients on work disability benefits face multiple problems, most traditional interventions for (re)integration focus on a single problem. The aim of this study was to evaluate the “Comprehensive Approach to Reintegrate clients with multiple problems” (CARm), which provides a strategy for labour experts to build a relationship with each client in order to support clients in their needs and mobilize their social networks.

Methods: This study is a stratified, two-armed, non-blinded randomized controlled trial (RCT), with a 12-month follow-up period. Outcome measures were: having paid work, level of functioning, general health, quality of life, and social support.

Results: We included a total of 207 clients in our study; 97 in the intervention group and 110 in the care as usual (CAU) group. The clients’ mean age was 35.4 years (SD 12.8), 53.1% were female, and 179 (86.5%) reported multiple problems. We found the CARm intervention to have no significant effects superior to those of the CAU group on all outcomes.

Conclusion: As we found no superior effect of the CARm intervention compared to CAU, we cannot recommend widespread adoption of CARm. A process evaluation will give more insight into possible implementation failure of the intervention.

Introduction

Work disability is among the greatest social and labour market challenges for policy makers in many Western welfare states [1]. It is not only a burden involving individual suffering and the public expenses of disability benefit, but it is also a (human) right of people with disabilities to participate in society and work, as secured in the Convention on the Rights of Persons with Disability [2]. To improve labour market prospects and reduce inequalities, several countries in the Organization for Economic Cooperation and Development (OECD) introduced active labour market policies, aimed at integrating the unemployed in general [3], and people with disabilities in particular [1,3]. Where these active labour market policies proved to be effective for unemployed benefit recipients in general, they appeared to be less successful for persons on disability benefits, especially those facing multiple problems [4,5].

Previous studies have defined and described multiple problems in different ways, referring to them as multiple barriers, multiple disadvantages, numerous problems, or just problems [4,6–11]. To comply with national studies, our study has defined having multiple problems as follows: Persons have multiple problems when they have to deal with two or more related and possibly reinforcing problems for a longer period of time, and they are unable to develop and conduct adequate management to control or solve the problems; this results in problematic participation in society and the labour market [6]. Because multiple problems are interconnected and interact with each other, they cannot be addressed in isolation from one another [4,12,13]. Due to multiple problems, people seem to get into a vicious circle of solving one problem only to be confronted with the next [12]. Previous research has shown that the prevalence of multiple problems among people on work disability benefits is high, and can increase up to 10 problems per individual [13,14]. In our previous studies we found that, besides health issues, most clients on work disability benefit perceived additional problems such as relational problems, financial problems, domestic problems, addiction, and educational problems [13,15]. For people with disabilities the chances to find or keep work were negatively affected by these multiple problems [6,7]. Furthermore, the combined effect of these problems meant that persons with more problems ran a greater risk of unemployment; for example, persons with six problems had a 90% risk of unemployment [7].

Most traditional interventions for (re)integration into the labour market are problem-centred, i.e., focusing on a single problem, and seeking expert and compensatory support for each problem separately. These interventions have limited effectiveness in persons with multiple problems [5,6]. Previous studies within multi-problem families and in psychiatry indicated that activating people's own strengths is an important tool for intervention, as they themselves may have personal and social resources, as well as strengths, to solve their problems [16,17]. A recent systematic review of research regarding the use of strength-based approaches in mental health service settings found emerging evidence that the utilization of such an approach improves outcomes, including hospitalization rates, employment/educational attainment, and intrapersonal outcomes

such as self-efficacy and sense of hope [14]. Two studies measuring outcomes related to employment [15,16] found that the practical and cognitive skills needed for social and occupational/vocational functioning significantly improved in the strengths group as compared to case management services routinely delivered by the mental health centre [15]. Moreover, Stanard [16] found vocational/educational outcomes to be better in the experimental strengths group than in the control group.

Based on these findings, a strength-based intervention may also be suitable for vocational rehabilitation and disability settings, since it contains many elements (e.g., being strength-based, focused on clients' wishes and goals, and involving activation of the social environment) also likely to improve chances of reemployment of persons with multiple problems. We therefore developed the Comprehensive Approach to Reintegrate persons with Multiple Problems (CARm) for use by labour experts at the Dutch Social Security Institute: the Institute for Employee Benefit Schemes (UWV). In the Dutch social security system, labour experts play a key role in supporting the re-integration process of persons with a work disability and remaining workability. The CARm intervention is adapted from the Comprehensive Approach to Rehabilitation (CARE), a well-known intervention in mental health care in the Netherlands, aimed at improving the quality of life of persons with psychological or social vulnerabilities by focusing on their strengths, helping to realize their wishes and goals, and obtaining access to their living environment and social networks [18]. CARE is based on the Strength Model of Rapp, a theoretical model from the 1980s focusing on the personal qualities, talents, and strengths of persons with psychiatric disabilities, and on their environment [10]. The model includes the following principles: (1) focus on the person's strengths rather than on pathology and limitations; (2) recognition of the relation between professional and client as primary and essential; (3) client-based interventions; (4) view of the community as a source of support and possibilities rather than an obstacle; (5) interventions offered in and by the community; and (6) people helped to recover, learn, grow and change.

To acquire more scientific knowledge on the applicability and effectiveness of CARm in disability settings, we conducted a feasibility study as an important first step to determine whether the intervention was appropriate for further testing [15]. We concluded that the CARm intervention was feasible and promising, and therefore its effectiveness should be studied [15].

Therefore, the aim of the present study was to evaluate the effectiveness of the CARm intervention on (re)integration into paid employment, and level of functioning, in a sample of disability benefit recipients facing multiple problems compared to those receiving care as usual. Since the Strengths model focuses on quality of life and is a recovery-oriented approach, outcomes on work status and functioning alone could be too one dimensional. Therefore, we also studied the effectiveness of the CARm intervention on perceived general health, quality of life, and social support.

Methods

Study design and setting

This study was carried out as a stratified (rural and urban), two-armed (intervention and control), non-blinded randomized controlled trial (RCT), with a fixed follow-up period of 12 months. The Medical Ethics Committee of the University Medical Center Groningen (UMCG), the Netherlands, approved recruitment, consent and field procedures. The trial was registered at the Dutch Trial Register (Nederlands Trial Register) (NTR5733). Written informed consent was obtained from all study participants. Design and reporting in this study is in line with the “CONSORT 2010 statement: extension to cluster randomized control trials” [19].

We conducted this trial in collaboration with ten districts of the Public Employment Service, a division of the UWV. The CARm approach was offered by a trained labour expert of the UWV. In the Dutch social security system, according to the Work and Income Act (WIA) workers can apply for disability benefits after two years of sick leave [20]. After a medical disability assessment by an insurance physician of the UWV, clients can receive either full and permanent benefits, full but non-permanent benefits, partial benefits, or no benefits for work disability. Insurance physicians assess clients as having no remaining workability if they: (1) lose their total workability within three months, (2) have a terminal disease with a life expectancy indicating that they will lose their total workability within foreseeable time, (3) have fluctuating workability, (4) are hospitalized, or (5) are not self-reliant due to a severe mental or physical disorder [21]. Clients assessed with remaining workability are referred to a labour expert who evaluates whether they are incentivized to continue in paid employment with their current employers, or whether they should enrol in a new, more appropriate job, according to their remaining workability. These labour experts play a key role in supporting the re-integration process. Moreover, the labour expert is usually responsible for clients with more complex multiple problems. In current practice, in their role as work reintegration professionals labour experts focus mainly on the client and his or her limitations due to work disability.

Sample size

Sample size was calculated based on the primary outcome measure level of functioning, measured using the World Health Organization Disability Schedule 2.0 (WHODAS 2.0) using G*Power software version 3.1.9.2 [22,23]. Based on an effect size of Cohen's $d=0.50$, a power of 0.80, an alpha of 0.05, an intra-class correlation coefficient (ICC) of 0.20, and a loss to follow-up of 25%, the desired sample size would be 440 clients in total, 220 clients per group [24–26]. There was a budget to provide two full training sessions for the labour experts. We intended to include a maximum of eight to ten labour experts per training session to have a good interaction between the participants. Based on these conditions, we decided to include 20 labour experts in the intervention group, and 20 labour experts in the care as usual group. To include the calculated sample size, each labour expert would have to provide 11 clients for the study. During an information meeting

prior to the start of the study, labour experts were informed about the number of clients to be recruited. They believed it was feasible to include 11 clients, who met the inclusion and exclusion criteria.

Study population and recruitment

To select participants for this study we used a two-step procedure. First, we invited eligible labour experts to participate. Every labour expert working at the Public Employment Service of the UWV was eligible for recruitment. In total this group consisted of 353 labour experts, divided over 11 different districts of the UWV in the Netherlands. The managers of the UWV selected one contact person per district. We then asked these contact persons to forward to all labour experts in their district our invitation to participate in the study. As the management of one district decided not to participate, 10 districts were involved in the study. We sent one reminder. Those who were first to agree to participate were included in the study. We held a meeting to inform all included labour experts about their role in the study. Recruitment of the labour experts took place from February until March 2016. In the second step, we asked clients to participate in the study. They were recruited by the participating labour experts. Clients who met the following criteria were found eligible: clients who had been granted work disability benefits and had been assessed with residual work capacity but were unemployed or not working the complete number of hours according to their residual work capacity, having an age of 18–65, and being able to understand and write Dutch. When clients agreed to participate, their name, address and e-mail address were collected by the labour expert and sent to the research assistant. The research assistant then mailed a letter to inform the client in more detail about the study, with a consent form and the first questionnaire. After receiving the informed consent form, the researcher included the client in the study. Clients were asked to complete questionnaires at baseline, and after three- and 12-months follow-up. If they did not respond, a reminder was sent after one and two months by phone call, e-mail and/or letter. Furthermore, labour experts were urged to include as many clients as possible by regularly sending emails, telephone calls and personal contact. Newsletters were sent to keep the labour experts updated on the current inclusion numbers and the aim of the sample size. Clients were recruited by labour experts from April 2016 through December 2016. After the follow-up, one year of data collection continued, until January 2018 for questionnaire data, and until April 2019 for register data on work status.

Randomization

Randomization took place at labour expert level. In order of registration, labour experts were randomized to the intervention or care as usual groups (CAU). A computer-generated randomization scheme used random permuted blocks of four labour experts, stratified to rural and urban districts to ensure a balanced assignment of location-specific employment rates. The districts were divided into rural and urban based on the number of inhabitants, the presence or absence of major cities, and the employment rate in the specific district. This resulted in five urban and six rural districts.

Randomization was performed by an independent methodological advisor who was blinded to the identity of the labour experts. After randomization, the advisor informed the researchers about the labour expert allocation.

The intervention – CARm

The CARm intervention comprises four elements: (1) The labour expert becomes acquainted with the concept of the strength-based method; (2) the labour expert drafts a *Personal Profile* of the client, containing information on client's current situation, needs, experiences, strengths, successes, abilities and skills; (3) the labour expert and client make an inventory of external resources in the client's social network: who are important for you, how is the relationship with the people in the social network, what was the support in the past, who can help you to achieve your goals; and (4) based on this profile, the client and the labour expert jointly develop a Participation Plan to prioritize the client's goals, activate the network, and tackle the client's problems. The labour experts are responsible to build an individual relationship with the client, based on mutual respect, to support the client in his/ her needs – focusing on strengths rather than limitations – and to mobilize the client's social network. In addition, they arrange for a prioritization of the client's goals and problems, with an emphasis on abilities. For this purpose, the labour experts received a five-day training in the CARm method. The training module focused on practical implementation of knowledge and skills during a five-day workshop – two whole days to transfer theoretical knowledge about the CARm method, and three half days to implement practical skills. The training was based on the book “Supporting Recovery and Inclusion: Working with the CARE model” by den Hollander and Wilken [27] and a training folder on the CARm method written by the research team. The training folder contained tools to help the labour expert and the client to draft a profile, make an inventory of the social network, and develop a participation plan. To avoid contamination, the labour experts in the CARm intervention were asked not to discuss the content of the method and training with their colleagues.

Care as usual

In the care as usual (CAU) group, the majority of reintegration tasks were executed by a reintegration company, thereby minimizing the contact between labour expert and client. The CAU group did not receive additional training as part of this study. Therefore, the CAU group was not acquainted with a strength-based method for reintegration, as our training and study were the first available sources on this method. Furthermore, we tried to minimize the information which the labour experts in the CAU group received about the CARm intervention so that they would not be familiar with the details of the CARm method.

Primary outcome measures

The primary outcomes of this study were paid employment and level of functioning. *Paid employment* was measured using data on gross wages and social benefit pensions from the Dutch tax register, which were available through data linkage with Polis register

data from UWV. Data on these income characteristics were available on a monthly basis, with a follow-up period of one year from the time of enrolment in the CARm trial. Paid employment was dichotomized into (yes/no) regarding receiving income from employment, according to the register data of UWV for the period of 12 months from inclusion.

Level of functioning was assessed using the World Health Organization Disability Schedule 2.0 (WHODAS 2.0) [22], and measured at baseline and 12 months. The WHODAS 2.0 is a practical, generic assessment instrument that captures the level of functioning in six domains of life: Understanding and Communicating (6 items), Getting around (5 items), Self-care (4 items), Getting along with people (5 items), Household activities (4 items), and Participation (8 items). All items of the WHODAS 2.0 have a five-point rating scale with answer options ranging from 1="no difficulty" to 5="extreme difficulty or inability to perform the activity." In this study we used the total score as well as the domain score on participation to gain insight into clients' ability to participate in society and work [22]. Standardized total scores and subscale scores ranged from 0 to 100, with higher scores representing increased difficulties in functioning. Cronbach's alpha on the total score was 0.93, and for the participation domain 0.85, indicating good internal consistency.

Secondary outcome measures

The secondary outcomes of this study were perceived general health, quality of life, and social support.

General health was measured by the first question of the SF36: RAND-36: "In general, would you say your health is ... ?" at baseline, and at three and 12 months [28,29]. The item has a 5point Likert scale (1=*excellent* to 5=*poor*) [30].

Quality of life was assessed with the World Health Organization Quality of Life BREF (WHOQoL-Bref) [31,32] at baseline and 12 months, including questions on four domains: physical health (7 items), psychological functioning (6 items), social relationships (3 items), and environmental opportunities (8 items). All items were scored on a four-point scale. Standardized domain scores ranged from 0 to 100, higher scores indicating a better quality of life. Cronbach's alpha ranged from 0.70 to 0.86 on the four domains, respectively.

Social support was assessed with the Social Support List-Interactions (SSL-I), and the Social Support List-Discrepancies (SSLD) [33]. These were assessed at baseline, and at three- and 12 months follow-up. The SSL-I is a 12-item questionnaire which measures three types of support: everyday support, support in case of problems, and esteem support. All questions are scored on a four-point scale from 1=seldom or never, to 4=very often. The overall sum score (possible range from 12 to 48) from the SSL-I was used, including all items. Higher scores indicate more social support. Cronbach's alpha on the total score was 0.92, indicating high internal consistency. The SSL-D questionnaire consists of 34 items which measure the degree to which the obtained support corresponds to the respondent's needs. The questions were scored on a four-point scale from 1 = I miss it, I would like to have more of it, 2 = I do not really miss it, but it would be nice if it happened more often, 3 = just enough as it is, I do not want it to be more or less often, 4 = it happens

too often, it would be nice if it happened less often. Scores were recoded according to the manual [33]; the overall score had a possible range from 34 to 102, with higher scores indicating a greater lack of support. Cronbach's alpha was 0.97, indicating high internal consistency.

Baseline characteristics

At baseline, a questionnaire was used to assess data on clients' sociodemographic characteristics: age, gender (male/female), education (low=primary school, lower vocational education, lower secondary school; medium=intermediate vocational education, upper secondary school; and high=upper vocational education, university), urbanization (urban/rural, measured at labour expert level), living situation (living alone: yes/no), being breadwinner (yes/no). Perceived problems were assessed by a self-constructed questionnaire [13], asking participants whether they experienced problems in the following areas: (1) physical health, (2) mental health, (3) financial problems, (4) care for family or children, (5) educational mismatch (too low or not appropriate), (6) problems with the Dutch language, (7) problems with police or justice, (8) housing, (9) addiction, and (10) domestic violence. These areas were derived from the categories of multiple problems, selecting the problems most suitable for the target population out of the four domains (psychological problems, cultural problems, economic problems, and normative problems) as reported by Statistics Netherlands (CBS) [34]. Multiple problems (yes/no) was defined as experiencing two or more problems. From the UWV register data we collected data on receiving disability benefits (yes/no), type of diagnoses (dichotomized into mental [e.g., depressive episodes, mild mental retardation] and physical diseases [e.g., cardiovascular disorders, lumbar disc disorder]) and how long (in years) the client had received disability benefits at baseline.

Regarding labour experts, socio-demographic data were collected at baseline by a questionnaire. Data included questions on age, gender, and working years as a labour expert. The working location of the labour expert (urban or rural) determined the client's allocation to an urban or rural area in the Netherlands.

Statistical analyses

All analyses were performed at client level and according to the intention-to-treat principle. The chi-square test (ordinal and nominal variables) or t-test (mean scores) were used to compare differences on baseline characteristics between the intervention and CAU groups. For the primary outcome on having paid employment, we performed logistic multilevel analyses. For the primary outcome, level of functioning, and all secondary outcomes we performed linear multilevel analyses. For skewed distributions regarding questionnaire data (SSL-D), we used gamma distributions in the linear multilevel models [35–37].

We had planned to incorporate three levels (labour expert, client, observation) in all models. However, the variance component of the labour expert level was zero in the empty model and remained zero in the unconditional growth model. Therefore, we

decided to incorporate two levels (client and observation) in the models. We tested for interactions between the intervention and time to follow-up by incorporating interaction terms in all multilevel analyses. All analyses included all available observations of the specific questionnaires (baseline and 12 months data for functioning and quality of life; baseline, three-months and 12 months data for general health and social support) and were adjusted for age, gender, education, urbanization, living situation, being breadwinner, diagnoses, and duration of disability benefits at baseline. With regard to the continuous confounders, age at baseline was centered on 36.12 years, and the duration of disability benefits at baseline was centered on 4.46 years in the multilevel analyses. Multilevel analyses were performed with Statistical Packages SAS version 9.4 (Proc Glimmix and Proc Mixed) and SPSS version 25 (SPSS Inc. Chicago). For all analyses a two-tailed p-level of <0.05 was considered an indication of statistical significance.

Results

In total, 45 labour experts were recruited, 22 of whom were allocated to the CARm intervention and 23 to the CAU group. After randomization, five labour experts -3 from the intervention and 2 from the CAU group – withdrew from the study for the following reasons: busy work schedule, change of workplace or division, or end of contract. Therefore, the final sample included 40 labour experts -19 in the CARm intervention and 21 in the CAU intervention. An overview of the recruitment flow is presented in Figure 1. Baseline characteristics of the labour experts are presented in Table 1. No differences between labour experts in the CARm intervention and the CAU group were found.

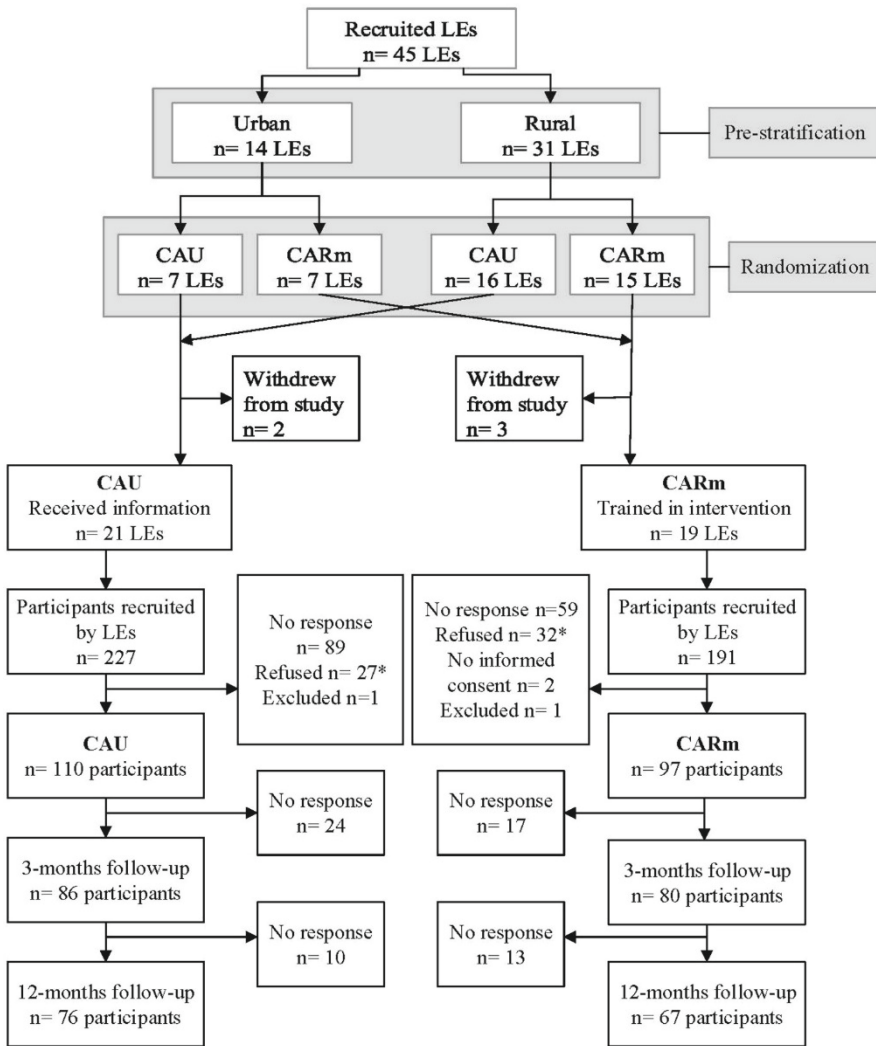


Figure 1. Flowchart of participant recruitment, allocation and outcome assessment.

Table 1. Characteristics of labour experts per study group.

	Total sample N (%)	CARm (n=19) N (%)	CAU (n=21) N (%)	p-Value
Mean age in years (SD)	50.08 (6.31)	51.05 (6.24)	49.19 (6.39)	0.358
Female	21 (52.5)	11 (57.9)	10 (47.6)	0.516
Years working as labour expert	8.50 (5.59)	9.40 (5.85)	7.69 (5.34)	0.342
Urbanization				0.816
Urban	14 (35.0)	7 (36.8)	7 (33.3)	
Rural	26 (65.0)	12 (63.2)	14 (66.7)	

Note. CARm: intervention group; CAU: care as usual group.

Non-participation and loss to follow-up

During the recruitment phase, 418 clients were approached by the 40 labour experts; of these 59 (14.1%) were not willing to participate. Main reasons for refusing were: too burdensome, not interested, and health problems. The 359 (85.9%) clients who were willing to participate were sent the baseline questionnaire and an informed consent form. Of these, 148 clients did not respond, and 4 were excluded due to missing informed consent, or missing information needed for data retrieval from the UWV registers. In total, 207 clients were included in the study, -97 in the CARm intervention and 110 in the CAU group (Figure 1). The number of clients included per labour expert ranged from 1 to 12. For the self-reported outcomes, 41 clients ($n = 17$ CARm, $n = 24$ CAU) were lost to follow up at three months, and another 23 ($n = 13$ CARm, $n = 10$ CAU) at 12 months (Figure 1).

Baseline characteristics

Baseline characteristics of the clients in the CARm intervention and CAU group are presented in Table 2. The mean age of the included clients was 35.4 years (SD 12.8), 53.1% were female, 30.4% had a low educational level, 34.3% were living alone, and 179 (86.5%) reported multiple (two or more) problems. The CARm intervention and the CAU group showed no differences in baseline characteristics of the clients, except for urbanization: 55.7% of the clients in the CARm intervention had been recruited by a labour expert from a rural district, whereas for the CAU group this was 71.8% ($p=.016$).

Table 2. Baseline characteristics of clients per study group.

	Total (n = 207) N (%)	CARm (n = 97) N (%)	CAU (n = 110) N (%)	p-Value
Mean age in years (SD)	35.4 (12.8)	34.9 (12.1)	35.8 (13.5)	0.638
Female	110 (53.1)	48 (49.5)	62 (56.4)	0.400
Educational level				0.476
Low	63 (30.4)	30 (30.9)	33 (30.0)	
Intermediate	94 (45.4)	47 (48.5)	47 (42.7)	
High	34 (14.4)	14 (14.4)	20 (18.2)	
Living alone	71 (34.3)	38 (39.2)	33 (30.0)	0.133
Young disabled	123 (59.4)	55 (56.7)	68 (61.8)	0.996
Years on disability benefits	4.6(4.6)	5.0(5.1)	4.3(4.1)	0.254
Breadwinner(yes)	95 (45.9)	49 (50.5)	46 (41.1)	0.205
Urbanization				0.016
Rural	133(64.3)	54 (55.7)	79 (71.8)	
Urban	74 (35.7)	43 (44.3)	31 (28.2)	
Diagnosis				0.520
Mental	134 (64.7)	65 (67.0)	69 (62.7)	
Physical	73 (35.3)	32 (33.0)	41 (37.3)	
Multiple problems	179 (86.5)	83 (85.6)	96 (87.3)	0.720

Primary and secondary outcomes

The results regarding the effectiveness of the intervention with respect to primary and secondary outcome measures are presented in Tables 3 and 4. Between the CARm and CAU groups, during follow-up we found no effect for paid employment (log Odds 1.62; 95%CI -0.42, 3.66), but a significant effect for time (Log Odds 0.35; 95%CI 0.26, 0.44), and for Time*CARm (log Odds -0.30; 95%CI -0.43, -0.18); this indicates no significant difference in paid employment at baseline, but a significant positive effect of Time, and a significant positive effect on paid employment over time in the control group compared to the CARm group (Figure 2 and Table 3).

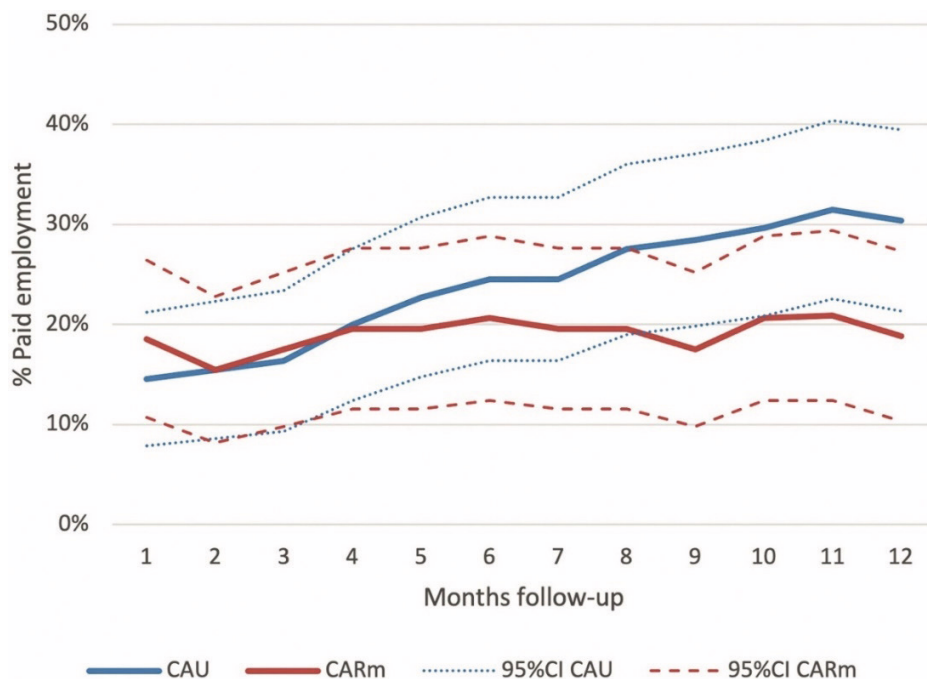


Figure 2. Unadjusted paid employment rates per month of clients in CARm intervention and CAU groups.

Table 3. Logistic multilevel analyses of paid employment of clients in CARm intervention and CAU groups during 12 months follow-up.

	Estimated	p-Value	95% CI	95% CI
	log odds		lower	upper
CARm versus CAU (ref)	1.622	0.119	-0.418	3.662
Time (months)	0.350	<0.001	0.264	0.436
Time* CARm (versus CAU)	-0.302	<0.001	-0.425	-0.180

* $p < 0.05$

Adjusted for age, gender, education, urbanization, living situation, being breadwinner, diagnoses, and duration of disability benefits at baseline.

During the 12 months follow-up, the clients in the CAU group improved significantly in their perceived functioning (estimated mean change score -4.451 [95%CI -6.541, -2.362]), whereas clients in the CARm intervention did not improve significantly (estimated mean change score 0.885 [95%CI -1.482, 3.251]). Further, we found no significant differences between the two groups over time (table 4).

Regarding participation, the clients in the CAU group improved significantly during the 12 months follow-up (estimated mean change score 5.360 [95%CI -8.542, -2.719]), whereas the clients in the CARm intervention showed no significant change (estimated

mean change score 0.321 [95%CI -2.998, 3.640]). We found no significant differences over time between the two groups (Table 4).

Regarding general health over time, we found no significant differences within nor between the two groups (Table 4).

For quality of life, the clients in the CAU group improved significantly on psychological functioning during the 12 months follow-up (estimated mean change 0.431 [95%CI 0.106, 0.757]). However, the clients in the CARm intervention showed no significant change over time (estimated mean change -0.069 [95%CI -0.444, 0.306]); regarding psychological functioning over time, no significant difference was found between the groups. The other domains of the quality of life questionnaire (physical health, social relations, and environmental opportunities) showed no significant differences within or between the two groups over time over time (Table 4).

The social support scores for both the CARm intervention and the CAU group on the SSL-I and the SSL-D showed no significant differences within nor between both groups over time (Table 4).

Discussion

Main findings

The present study showed no significant superior effect of allocation to the CARm trained labour expert over the CAU labour expert on the primary and secondary outcomes. In fact, the clients supported by a CAU labour expert scored significantly better on employment status over time, as well as on improvement on levels of functioning over time. We found no significant differences over time on functioning and participation in the CARm group, nor between both groups. Among secondary outcomes, regarding the domain psychological function in the quality of life questionnaire, the CAU group showed a significant improvement over time. Further, we found no significant differences in favour of the intervention group on any secondary outcome.

Table 4. Linear multilevel regression analyses of questionnaire data of CARm intervention and CAU group clients using baseline to 12 months follow-up data.

		Estimated mean scores		Estimated mean change scores within groups over time	Estimated mean differences between groups over time	95% CI	
		Baseline	12 months	Baseline – 12 months	Baseline – 12 months	Lower	Upper
WHODAS – Total score	CARm	30.2	31.1	0.885		-1.482	3251
	CAU	33.7	29.3	-4.451*		-6.541	-2.362
	CARm-CAU				-0.879	-5.609	3851
WHODAS – Participation	CARm	37.4	37.8	0.321		-2.998	3640
	CAU	40.2	34.5	-5.630*		-8.542	-2.719
	CARm-CAU				0.255	-6.064	6575
SF12-Q1 – General health	CARm	3.6	3.6	-0.066		-0.210	0.078
	CAU	3.7	3.6	-0.039		-0.166	0.088
	CARm-CAU				-0.003	-0.226	0.220
WHOQOL – Physical health	CARm	12.5	12.7	0.166		-0.222	0.555
	CAU	12.5	12.8	0.338		0.000	0.675
	CARm-CAU				-0.024	-0.830	0.782
WHOQOL – Psychological functioning	CARm	12.8	12.7	-0.069		-0.444	0.306
	CAU	12.6	13.0	0.431*		0.106	0.757
	CARm-CAU				-0.048	-0.896	0.800
WHOQOL – Social relationships	CARm	13.4	13.3	-0.093		-0.593	0.408
	CAU	13.3	13.2	-0.005		-0.439	0.430
	CARm-CAU				0.101	-0.867	1068
WHOQOL – Environmental opportunities	CARm	14.0	14.0	-0.031		-0.384	0.323
	CAU	13.9	13.9	-0.046		-0.353	0.261
	CARm-CAU				0.137	-0.600	0.875
SSL-I – Total score	CARm	31.2	31.2	0.015		-1.059	1090
	CAU	29.8	30.1	0.321		-0.621	1264
	CARm-CAU				0.950	-0.943	2844
SSL-D – Total scorea	CARm	48.5	47.7	-0.816		-2.938	1306
	CAU	48.7	47.2	-1.521		-3.319	0.276
	CARm-CAU				0.145	-3.997	4287

Adjusted for age, gender, education, urbanization, living situation, being breadwinner, diagnoses and duration of disability benefits at baseline.

aFor SSL-D, Total score gamma distributions were used because of skewed distributions.

**p<0.05.*

Interpretation of the findings

The absence of a superior intervention effect may have had several causes: (1) the follow-up time may have been too short in order to have an effect of the CARm intervention on employment status, due to a “lock-in-effect” [38,39]; (2) the CARm intervention may have sustained implementation or theory failure; (3) the participating labour experts may have consisted of a subgroup already specifically interested in using the offered methods, and by then applying them (partly) in their daily practice.

Regarding the first potential cause, the adverse effect of employment status may have been caused by a lock-in-effect, as initially described by Van Ours [38], and further elaborated by Lechner et al. [39]: participants entering a program or intervention to improve employment outcomes can be too busy following that program instead of spending time looking for a job. This leads initially to a negative effect on employment outcomes. Those who have completed programs have a greater probability of finding sustainable work than those who have not participated in a program, but these positive effects can take as long as three years to become evident [38,39]. In our study, the clients in the CARm intervention were supported by a comprehensive strength-based method to work on their perceived problems – problems that hinder (re)integration but are not necessarily work related. A possible lock-in effect may explain why we should not have expected to see a strong increase in employment status within one year of follow-up. Furthermore, our intervention aimed to reach sustainable employment rather than short-term employment.

Regarding the second possible cause, the absence of a positive intervention effect could also have been a result of implementation and/or theory failure. The aim of the CARm intervention was to have labour experts build individual relationships with clients, to develop tailor-made programs for reintegration, aimed at work resumption, as well as to support clients in their needs and mobilize their social networks. A participation plan was drafted jointly by labour expert and client in order to prioritize and tackle the client’s problems.

Implementation failure can occur at different levels, resulting in low fidelity of the intervention. At the organizational level, followed by the labour market policies, the budgets available for reintegration are limited, leaving labour experts only limited time to offer the intended support to their clients. Without building a relationship using a strength-based approach, drafting a profile, making an analysis of the network, and working with the client to draft a reintegration plan, the intervention cannot be effective. A major concern in the feasibility study was that because of the workload several labour experts sensed on the part of management not only a lack of support, but even disapproval, of (multiple) personal contact(s) with clients; such an attitude would conflict with the CARm methodology [15], and would have made it impossible to provide the key elements of the intervention as planned. In order to know whether the labour experts in our sample experienced the same lack of management support, we conducted a process evaluation along with this effect study.

Additionally, the CARm intervention may have sustained theory failure, meaning that in spite of being implemented correctly, the intervention is not effective for our study

population. The CARm intervention was based on the Strengths model as described by Rapp [17]. Bitter et al. also performed an intervention study based on the same model: Comprehensive Approach to Rehabilitation [18]. They studied the effect of their CARE intervention on rehabilitation of people with severe mental illnesses. Although all clients improved in quality of life over time, Bitter et al. also found no significant differences between the intervention and care as usual groups. They suggested that a possible reason for their lack of result might be theory failure: failure of the characteristics of the CARE methodology itself. They elaborated that earlier research on rehabilitation approaches indicated that effective elements of psychiatric rehabilitation are: focussing on the specific skills that are needed in a certain environment and actual access to that desired environment as soon as possible; integrating rehabilitation and psychiatric treatment; and combining skills training and offering support. In the CARE methodology these aspects were not elaborated explicitly [11]. However, with the CARm intervention we targeted a rather different population of both professionals and clients than the CARE methodology and made severe adjustments to the CARE methodology accordingly. We have no indication that these adjustments were insufficient to make the methodology suitable for our target population. Nevertheless, theory failure still might have occurred. The results of our process evaluation may provide more insight into this matter.

Regarding the third possible cause, because participation of labour experts in the study was voluntary, we may have especially reached labour experts already interested in using the methods provided in the CARm intervention, and therefore a selection bias might have occurred. If they had already applied its approach (partly) in their daily practice without our awareness, independent of being randomized to the CARm intervention or CAU group, this may have affected our study outcomes. The process evaluation conducted along with our effect study may give us more insight into this possible cause.

Strengths and limitations

Our study has several strengths. To our knowledge, this study is the first effect study of a strength-based reintegration method for people on work disability benefits, and one of the few studies to use an intervention based on the strength method, compared to care as usual [18,40,41]. Although Bitter et al. published their study on the effect of the CARE method, we adjusted the method and targeted a rather different population of both professionals and clients [11,18].

Because clients were recruited by labour experts working in all regions of the Netherlands, we were able to include a geographically representative sample of clients, from regions both rural and urban, and economically strong and less strong. Furthermore, for employment status and diagnosed disease we used register data, which are from an external source and minimise the chance of bias due to self-report.

A possible limitation of our study is a potential selection bias in both the labour experts and the clients. Participation of the labour experts was voluntary, and therefore we may have especially reached labour experts who were motivated in using the methods provided in the CARm intervention. Subsequently, as the recruitment of eligible clients was conducted

by labour experts, so we had no insight into which clients were or were not selected for the study. However, our study sample of the participating clients shows a distribution of the clients over categories of the sociodemographic characteristics (i.e., gender, educational level), and no significant differences in the sociodemographic characteristics (except for urbanization) between the CARm intervention and CAU group, suggesting that the selection by the labour experts was random and the randomization went as intended.

Furthermore, we were not able to include the previously calculated sample size. This may have affected our statistical outcomes. Although the results did not show a trend toward significance in favour of the CARm intervention, we can assume that the intervention would have had no significant superior effect over the CAU if the sample size had provided sufficient power.

Implications for research and practice

The majority (87%) of the participating clients perceived the presence of multiple problems [13]. These clients experience a great distance from the labour market, and the time to find sustainable employment may take more than 12 months, especially when the intervention is focused not only on reintegration into work but also on other perceived problems, as well as on mobilising the social network and addressing strengths. Although our study did not show the CARm intervention to have a superior effect on paid employment compared to CAU, we are convinced that many elements of the CARm module fit well within modern labour market policies. Further in depth research is needed on the effect of the CARm module on other outcomes: whether the tailor-made program supports the needs of clients, mobilizes clients' social networks, and leads to a decrease in the client's perceived problems, which might be a first, but very important, step in the process of reintegration. Additionally, to confirm whether CARm participants indeed achieve better than CAU participants in return to paid employment and sustainable employment in the long run, a longer follow-up time than 12 months would be needed in order to overcome a possible locked-in-effect.

Conclusion

This is the first effect study on a strength-based reintegration method, CARm, for people with multiple problems on work disability benefits; we found the CARm intervention to have no superior effect when compared to CAU. We suspect multiple possible causes for the absence of a superior effect: a "lock-in-effect," selection bias, theory failure; and/or failure of the implementation. Based on these results we cannot recommend a widespread adoption of CARm. Further, in depth evaluation of the process is needed, as well as additional research to study the effect of the CARm method on outcomes, such as decreased numbers of perceived problems of clients far separated from the labour market. Moreover, a longer follow-up period than one year should be used to evaluate its effect on sustainable paid employment.

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Chapter 6

Process evaluation of a Comprehensive Approach to Reintegration of disability benefit recipients with multiple problems (CARm) into the labour market.

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Abstract

Purpose: As the effect evaluation of our randomized controlled trial the “Comprehensive Approach of Reintegration for clients with Multiple problems” (CARm) showed no superior effect on re-integration into paid employment of the clients when compared with clients of the care as usual, we conducted this process evaluation to gain insight into whether the intervention was conducted according to protocol.

Methods: Using questionnaires on recruitment, reach, dose delivered, dose received, fidelity, context, and satisfaction we collected data from 40 labour experts of the Public Employment Service of the Dutch Social Security Institute, and from 166 disability benefit recipients dealing with multiple problems.

Results: Only few of the labour experts provided the key elements of the intervention to their clients. Between the clients of both groups were no significant differences in the dose received. More than half of the labour experts of the intervention group reported organizational changes.

Conclusion: The lack of effect of the CARm intervention was almost certainly caused by implementation failure. Once again this study showed the importance of involving all stakeholders in developing and the conduct of the intervention, and of clarifying the consequences for the organization, to ensure that it can be conducted according to protocol.

Introduction

A high proportion of persons claiming work disability face multiple problems [1,2]. They have to deal with two or more related, and possibly mutually reinforcing, problems over longer periods of time, resulting in problematic participation in society and the labour market [3]. In a recent cross-sectional survey among a Dutch sample of disability benefit recipients, 87% reported experiencing multiple problems, including having poor health, a mismatch in education, financial problems, or care for family members [1]. For people with disabilities the chances to find or keep paid employment were negatively affected by these multiple problems [4,5]. Moreover, the combined effect of these problems meant that these people had fewer chances for successful return to work than persons facing only unemployment [4].

In the past decades, many Western countries have introduced active labour market policies to encourage employment of people receiving benefits [6]. Although for unemployed benefit recipients these policies have been proven to be effective, for people claiming disability benefits, particularly those facing multiple problems, these policies seem much less successful [7-9]. The primary goal of these policies is to get the worker back to work, with a focus on re-integration. However, most of the current interventions are problem-centred, i.e., focused on problems, and on seeking expert and compensatory support for each problem separately, without taking into account other (non-health-related) factors that could obstruct participation in work. Because multiple problems are interconnected and interact with each other, they cannot be addressed separately and require a more complex intervention [1,8,10].

To improve re-integration into paid employment of disability benefit recipients facing multiple problems, the “Comprehensive Approach to Reintegration for clients with multiple problems” (CARm) was developed [11]. The intervention is based upon the Strengths Model described by Rapp [12] and is a strategy designed to help those with multiple problems to focus on their talents, qualities and strengths, and to involve their environment. This intervention is provided by labour experts, professionals who play a key role in supporting there-integration process of persons who have a work disability but also remaining workability in the Dutch social security system. The evaluation of the randomized controlled trial (RCT) showed that the intervention by the CARm trained labour expert had no significant superior effect on paid employment of the client when compared with clients of the care as usual (CAU) labour expert [13]. Furthermore, no significant differences were found in favour of the intervention group on secondary outcomes like functioning and participation in society.

Although knowledge about the effectiveness of interventions for reintegration is valuable, it does not explain why and how an intervention was, or was not, successful. This lack of knowledge impedes the generalisability and effectively implementing the intervention on practice [14,15].

A process evaluation can therefore be conducted to collect data about how interventions were planned and implemented. Kristensen [16] emphasized the importance

of distinguishing between theory- and programme failure. When an intervention is delivered and received as planned but shows no effect, theory failure is plausible. However, poor execution of an intervention (failure to deliver or receive according to protocol) indicates program failure; this means that no conclusions should be drawn about the effectiveness of the intervention [16,17]. The process evaluation framework of Steckler and Linnan [18] helps to work out the theoretical model of Kristensen [16]. This framework specifies different elements that need to be evaluated to understand whether or not program failure did occur: recruitment, reach (participation rate), dose delivered (completeness), dose received (exposure), fidelity (quality), and context [18].

Our study reports on a theoretically founded and structured process evaluation of the CARm intervention. We used the framework of Steckler and Linnan [18] to develop, plan, and guide the process evaluation. The aims of this study were to evaluate: 1. whether the CARm intervention was conducted according to protocol; 2. whether the guidance of the clients of the CARm trained labour experts differed from that of the labour experts in the control group with regard to the key elements of the intervention; and 3. whether (and to what extent) the clients and labour experts who participated in the study were satisfied with the CARm method.

Methods

Design

The process evaluation was part of a stratified, two-armed, non-blinded RCT evaluating the effect of the CARm study on work (re)integration of disability benefit recipients facing multiple problems. The study had a 12-month follow-up period. The trial was conducted in collaboration with ten districts of the Public Employment Service, a division of the Dutch Social Security Institute: the Institute for Employee Benefit Schemes (UWV) in the Netherlands. Labour experts were randomized into intervention and control groups. Clients were recruited by the labour experts, and their allocation to the intervention or control group followed the allocation of their labour expert. For more detailed information on the design of the RCT, see Brongers et al., 2022 [13].

The Medical Ethics Committee of the University Medical Center Groningen (UMCG), the Netherlands, approved recruitment, consent and field procedures. The trial was registered at the Dutch Trial Register (Nederlands Trial Register) (NTR5733).

Study population

The study population consisted of labour experts from the Public Employment Services of the UWV, and disability benefit recipients facing multiple problems. Disability benefit recipients assessed with remaining workability are referred to a labour expert who evaluates their remaining workability. The labour experts play a key role in supporting the re-integration process.

Labour experts

All labour experts working at the Public Employment Service of the UWV were found eligible for participation in the study. All labour experts working at the Public Employment Service of the UWV completed a 2-year training to become a labour expert, only labour experts who had finished this training were included in the study. No further in- or exclusion criteria were formulated. Those who were first to agree to participate were included in the study, and randomized to the intervention or care as usual group, stratified to rural and urban districts to ensure a balanced assignment of location-specific employment rates.

The participating labour experts in the intervention group received training in the CARm intervention, provided by an experienced trainer in strength-based methods, including a book by Den Hollander & Wilken [19] and a training guide on the CARm method written by the research team, including tools and checklists to support the labour experts implement the key elements of the method. The development and evaluation of the CARm training and method was described previously in our feasibility study. However, several adjustments to the protocol were made in line with the results of the study [11]; (1) The training was compressed from a seven days training into a five days training, within a time period of 4 months, (2) Labour experts were stimulated to use the Strength Based Method on their current caseload during the training period, to practise the method and discuss their experiences during the training days, (3) District managers were informed about the method and gave their approval on the additional time for labour experts to be able to give support to their clients according to protocol, (4) The local office of the participating labour experts received a compensation fee for the time the labour experts spend on study related activities, (5) Labour experts participating in the training received accreditation points for their attendance, (6) During the study period intervention was offered.

Furthermore, more time for practising was incorporated and we increased the awareness of trainers that the focus of the training was work reintegration.

Clients

The clients were recruited by the participating labour experts. Clients who met the following criteria were found eligible for the trial: clients who had been granted work disability benefits and had been assessed with residual work capacity but were unemployed or not working the complete number of hours according to their residual work capacity, aged between 18–65 years, and able to understand and write Dutch. Moreover, clients were assigned to a labour expert from the UWV, as they were in need of support during the work reintegration process.

The intervention – CARm

The CARm intervention comprises four core elements. 1. The labour expert becomes acquainted with the concept of the strength-based method: he/she is responsible to build an *individual relationship* with the client (by meeting with the client personally on a

regular basis: ≥ 2 personal contacts) and to support the client in his/her needs (focusing on strengths rather than limitations, and mobilizing the client's social network); he/she also arranges for a prioritization of the client's goals and problems, with an emphasis on abilities. 2. The labour expert drafts a *Personal Profile* of the client, containing information on the client's current situation, needs, experiences, strengths, successes, abilities and skills. 3. The labour expert and client make an inventory of external resources by *mapping the client's social network*: who are important for you, how is the contact, what was the support in the past, and who can help you to achieve your goals. 4. Based on this profile, the client and the labour expert jointly develop a *Participation Plan* to prioritize the client's goals, activate the network, and tackle the client's problems. More detailed information about the CARm intervention can be found elsewhere [11].

Care as usual

In the control group clients were guided in their work reintegration by labour experts who continued their work as usual. Labour experts of the UWV are ultimately responsible for the re-integration guidance of clients on work disability. However, due to high case load and time constraints, they only have limited time for contact with clients, they often meet only once, and usually this is by email or telephone. Therefore, the care as usual means in daily practice they only 'screen' the clients and refer them to a private re-integration agency. These agencies offer activation programs aimed at work resumption (activation programs, enhancing self-esteem and self-efficacy, job-application training) and are contracted by the social security institute. The labour expert remains the responsible case-manager and after finishing an activation program the private re-integration agency informs the labour expert about the results and, when needed, the labour experts will contact the client to determine if further action is needed and by whom. More complex clients are usually not supported by these companies, as these activation programs do not fit to the needs of the clients. The clients are referred back to the labour expert of the UWV who has to find another solution. In these cases, the labour expert of the UWV usually provides support for clients with more complex multiple problems themselves. In current practice, in their role as work re-integration professionals labour experts focus mainly on the client and his or her limitations due to work disability. Furthermore, due to the high case load the personal contact is usually limited to (e-)mail or telephone. The control group did not receive additional training as part of this study. Therefore, the control group was not acquainted with a strength-based method for reintegration, as our training and study were the first available sources on this method.

The process evaluation

The process evaluation was based on Steckler and Linnan's framework and included the components: recruitment, reach, dose delivered, dose received, fidelity, and context [18]. In line with previous process evaluation studies, we added satisfaction as a seventh component, to gain insight into the satisfaction of the labour experts with the applicability of the intervention, and the satisfaction of the clients with their treatment [20-24].

Data collection

Socio-demographic data from the labour experts and clients were collected at baseline by a questionnaire. Regarding labour experts, data included questions on age, gender, working years as a labour expert, and working area (urban/rural). Clients' sociodemographic characteristics included age, gender (male/female); living situation (living alone yes/no); being breadwinner (yes/no); and educational level, recoded as low, intermediate or high (low: primary school, lower vocational education, lower secondary school; intermediate: vocational education, upper secondary school; and high: vocational education, university).

Regarding the seven components of the process evaluation, data pertaining to both labour experts and clients were collected for both the intervention and control groups. The labour experts were asked to complete questionnaires directly after the training and upon 9-month follow-up. The clients were asked to complete a questionnaire about the components of the process evaluation upon 3 months follow-up. Along with the questionnaires, as part of the fidelity component the labour experts were asked to keep track of the number and types of contact with each of their clients. Dose delivered, fidelity, and satisfaction were not assessed by the labour experts in the control group, as these components were related to elements of the intervention that were not applicable to the control group.

The different components of the process evaluation were operationalised as follows:

Recruitment

We defined recruitment as the procedures used to attract labour experts and clients for participation in the CARm study. We describe these recruitment procedures in Table A1.

Reach

Reach was measured at *labour expert and client level* and was defined as the proportion of the target population that agreed to participate by signing informed consent and completing the baseline questionnaire; this included both intervention and control groups. The target population consisted of all labour experts and clients who had been approached for participation in the study and were eligible for participation, based on the in- and exclusion criteria. Reach was illustrated by a participation flow.

Dose delivered

Dose delivered was assessed at *labour expert level* by questioning the labour experts of the intervention group about the implementation of the strength-based strategy to help those with multiple problems to focus on talents, qualities and strengths, and to involve their environment [12]. The following questions were asked: How often did you stimulate the client to take control, how often did you focus on the strengths of the client and not only on the limitations, and how often did you involve the social network in the participation process. The questions were rated on a five-point Likert scale (1= seldom to never, 2= sometimes, 3= often, 4= very often, and 5= always). Answer options were recoded as dose delivered 'seldom to sometimes' (= seldom to never, sometimes) and 'often to always' (= often, very often, always).

Dose received

Dose received was assessed at *client level* by questioning all clients whether they were stimulated to take control themselves, whether their labour expert focused on their strengths and not only on their limitations, and whether their social network was involved in the participation plan. Answers to the questions included: yes, no, not applicable/I do not know.

Fidelity

Fidelity was defined as the extent to which the CARm intervention was delivered and received according to its four key elements, and was measured at labour expert and client levels.

According to the protocol, *labour experts* had to meet with clients personally on a regular basis, draft a personal profile of the client, develop a tailor-made participation plan, and map the social network of the client. After 9-months follow-up labour experts of the intervention group were asked to report how often they had had personal contact (face-to-face or by phone) with each specific client. Answers were categorized into < 2 personal contacts and ≥ 2 personal contacts. Furthermore, labour experts were asked how often they had made a personal profile, how often they had developed a participation plan, and how often they had mapped the social network of the client. The questions were rated on a five-point Likert scale (1= seldom to never, 2= sometimes, 3= often, 4= very often, 5= always). Answer options were recoded to 'seldom to sometimes' (seldom to never, sometimes), and 'often to always' (often, very often, always). The final question, to what extent they had involved the social network, was rated on a 4-point Likert scale (1= not, 2= limited, 3=partially, 4= extensive). Answer options on involving the social network were recoded as 'not to limited' (not, and limited) and 'partially to extensive' (partially, and extensive).

Fidelity at *client level* was defined as the number of personal contacts (face-to-face or by phone), and categorized as the number of clients who had <2 personal contacts and ≥ 2 personal contacts with their labour expert. Furthermore, clients of both the intervention and control group were asked whether a personal profile had been made, a participation plan developed, and their social network mapped. Answer options to these three questions were yes, no, not applicable/I don't know.

Context

Context refers to factors related to the private or work environment that may influence the implementation or outcome of the intervention, and was measured at both labour expert and client levels.

Labour experts of both the intervention and control group were asked: 1) whether any changes had taken place within the organization (the UWV) (yes, no), 2) what kind of changes (open question), and 3) how these changes were experienced (answer options: positive, negative, neither positive nor negative). Furthermore, labour experts were asked whether they had followed any other training during the same period as the CARm training (yes, no).

At *client level* the incidence of a major life event in private life was measured with the following questions: 1) did you experience any stressful life event during the research period (yes, no), and 2) what kind of event (open question). Furthermore, clients were asked whether they had participated in another education or training program during the study period (yes/ no).

Satisfaction

Satisfaction referred to the degree of satisfaction with the intervention, and was measured at both labour expert and client levels.

Satisfaction at *labour expert level* was assessed by the experts in the intervention group using seven statements about applying the intervention in daily practice: (1) I apply the method in daily practice, (2) I feel a better labour expert by applying the method, (3) Quality of my work improves by applying the method, (4) I expect to work more with the method in the future, (5) I find it hard to find time to work with the method in daily practice, (6) Applying the method in practice is good for the quality of my role as a labour expert, (7) I expect that working with the method will improve the quality of labour experts' work. Each statement was rated on a 4-

point scale (1= totally disagree, 2= disagree, 3= agree, 4 = totally agree, with the option to choose not applicable). Answer options on the satisfaction statements were recoded as '(totally) disagree (totally disagree, disagree)', and '(totally) agree (agree, totally agree)'.

Satisfaction at *client level* was measured with one question: how satisfied was the client with the guidance of the labour expert; answers were rated on a five-point Likert scale (from 1= very dissatisfied, to 5= very satisfied). Additionally, all clients were asked to indicate how well the guidance of the labour expert had been structured, and whether the guidance had helped to promote their re-integration. These questions were scored on a five-point Likert scale (from 1= totally disagree, to 5= totally agree). Answer options on client satisfaction were recoded as 'disagree' (totally disagree, disagree, not disagree/ not agree), and 'agree' (agree, totally agree).

Data analysis

Quantitative data analysis

Descriptive statistics (frequencies, percentages, means, and standard deviations [sd]) were generated for the components of the process evaluation. Chi-square tests and the independent T-test were used to study differences between the two groups (intervention and control groups) on the components that were measured in both groups (i.e., dose received [client level], fidelity [client level], context [labour expert and client level], and satisfaction [client level]). Clients who completed only the baseline questionnaire were excluded from the analyses. Analyses were performed using SPSS (version 26.0), and a p-value <.05 was used to indicate statistical significance.

Qualitative data analysis

Thematic content analysis was used to analyse the open questions on organizational change (labour expert level) and life events (client level) [25]. The first step in the process included thoroughly reading all reported organizational changes and life events and identifying meaning units and codes. Thereafter the answers were clustered into themes. These steps were performed independently by two authors (KB and LW), and the process was then discussed with a third author (TH), until consensus on the themes was reached.

Results

The results of each component of the process evaluation are summarised below.

Recruitment

Table A1 (Appendix) presents the recruitment procedures that we used to attract labour experts working at the Public Employment Service of the UWV and the clients who were provided by the labour experts. Detailed information on this calculation can be found elsewhere [13].

Reach

Detailed information about the inclusion rates were published before [13]. In summary: ten out of eleven districts of the Public Employment Service of the UWV were willing to participate, corresponding to a reach of 90%. In total, 45 labour experts were recruited, of these, 40 labour experts were included in the final sample: 19 of the 22 labour experts (86%) in the CARm intervention, and 21 of the 23 labour experts (91%) in the CAU intervention. The 40 labour experts approached 418 clients; of these 207 were included in the study, indicating a reach of 49.5% (Figure 1).

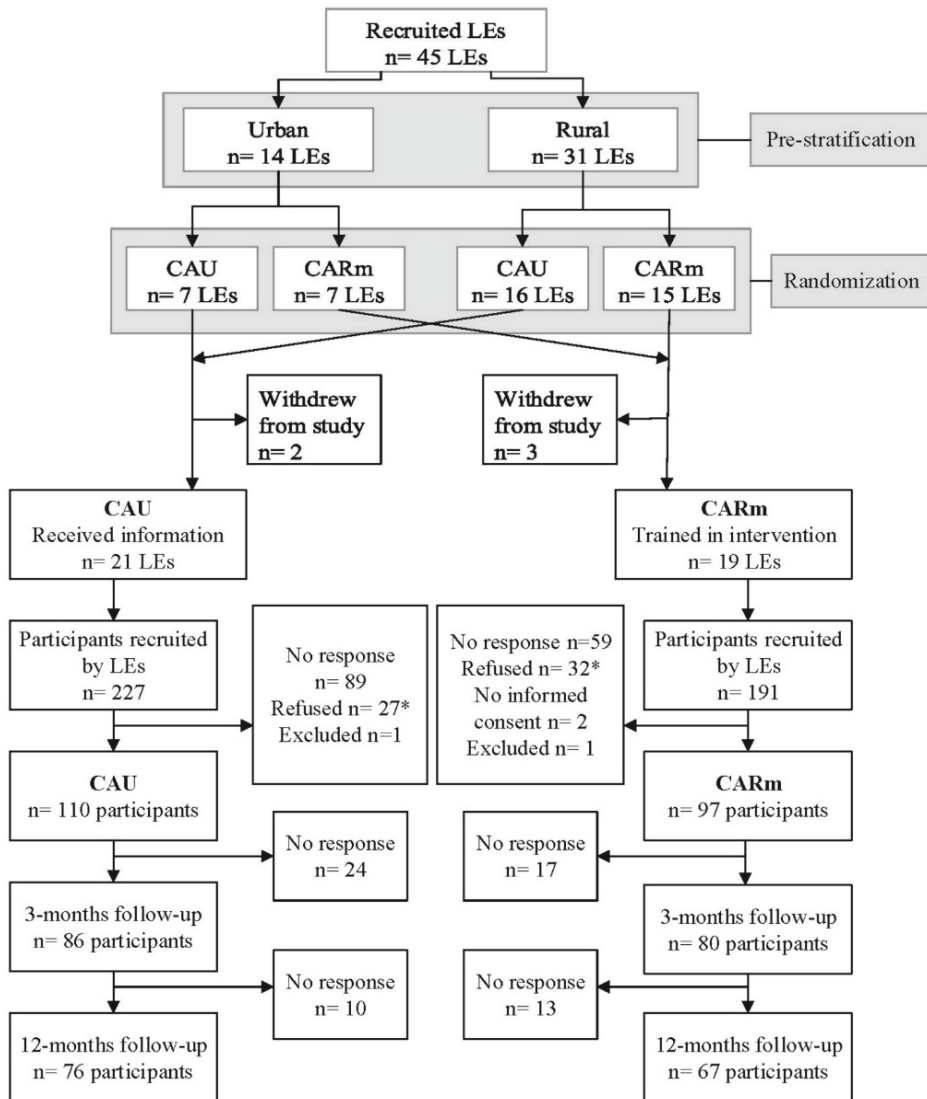


Figure 1. Flowchart of labour expert and client recruitment and allocation.

Note. CARm = intervention group; CAU= care as usual group; LE = labour expert. Excluded = provided incomplete information to link with register data.

All included labour experts filled out the questionnaire directly after the training and after 9-months follow-up. There were no differences in baseline characteristics between the labour experts in the intervention and the control group (Table 1). For fidelity, for only 39 of the 80 clients was this information collected.

Of the 207 clients who participated in the study, 166 (80.2%) filled out the questionnaire upon process evaluation at 3-months follow-up. These clients did not differ on most

characteristics from those who did not complete the questionnaire at 3-months follow-up, except for age. The clients who completed the questionnaire were significantly older than the clients who did not complete it (n=41) (mean age 30.6 + 11.4 years). There were no differences in baseline characteristics between clients in the intervention (n=80) and the control group (n=86), both of whom completed the questionnaire at 3-months follow-up (Table 1). The responses of the 166 clients were used for analyses of the other elements of the process evaluation (dose delivered, dose received, fidelity, context, and satisfaction).

Dose delivered

Directly after the training, 16 of the 19 labour experts in the CARm intervention (84.2%) reported that they 'often to always' stimulated the clients to take control, 16 (84.2%) focused on strengths and not only on limitations, and 10 (52.6%) involved the social network in the participation process 'often to always'. At 9-months follow-up 13 (68.4%) reported that they 'often to always' stimulated the clients to take control, 16 (84.2%) focused on strengths and not only on limitations, and 8 (42.1%) involved the social network in the participation process (Table 2).

Dose received

At 3-months follow-up 45 (56.3%) of the clients in the CARm intervention and 53 (61.6%) in the control group felt stimulated to take control themselves. The percentages of clients who reported that labour experts focused on strengths and not only on limitations were 57.5% in the CARm intervention and 55.8% in the control group. The involvement of the social network in the participation plan was 21.3% for the CARm intervention and 12.8% for the control group (Table 3).

Table 1. Baseline characteristics of labour experts and clients

Characteristics	Mean/n, (sd / %)	Mean/n, (sd / %)	Mean/n, (sd / %)
<i>Labour experts</i>	<i>Total (n=40)</i>	<i>CARm (n=19)</i>	<i>CAU (n=21)</i>
Age (years)	50.1 (6.3)	51.1 (6.2)	49.2 (6.4)
Gender (male)	19 (47.5)	8 (42.1)	11 (52.4)
Years working as labour expert	8.50 (5.6)	9.4 (5.9)	7.7 (5.3)
Working area in the Netherlands			
Urban	15 (37.5)	8 (42.1)	7 (33.3)
Rural	25 (62.5)	11 (57.9)	14 (66.7)
<i>Clients</i>	<i>Total (n=166)</i>	<i>CARm (n=80)</i>	<i>CAU (n=86)</i>
Age (years)	36.9 (13.0)	36.0 (12.0)	37.7 (14.0)
Gender (female)	84 (51.5)	39 (50.0)	45 (52.9)
Living alone	55 (33.5)	31 (39.7)	24 (27.9)
Breadwinner (yes)	74 (45.4)	41 (52.6)	33 (38.8)
Educational level			
Low	50 (30.5)	23 (29.1)	27 (31.8)
Intermediate	80 (48.8)	43 (54.4)	37 (43.5)
High	34 (20.7)	13 (16.5)	21 (24.7)
Paid employment (yes)	24 (14.5)	10 (12.5)	14 (16.3)

Note. CARm = intervention group; CAU= care as usual group. Due to missing's the number and percentages do not always add up to the total number.

Fidelity

The labour experts in the CARm intervention group reported in 82.1% of the cases to have >2 personal contacts with the clients. For only 26.3% of the clients was a personal profile made, and for 42.1% a personal plan developed; for 52.6% of the clients in the intervention group the social network was involved at 9 months follow-up (Table 2). The clients in the CARm intervention group reported more often having had >2 personal contacts with the labour experts; i.e., 42.5% of the clients in the CARm intervention group, versus 34.9% in the control group. Furthermore, the clients of the CARm intervention reported low percentages on the other fidelity components: in 11.3% of the cases a personal profile had been made, in 33.8 % a personal plan had been developed, and in 20.0% mapping of the social network had been conducted. No significant differences in findings between the clients of the CARm intervention and control group were found (Table 3).

Table 2. Components of process evaluation at labour expert level

Components	Directly after training		9-months follow-up	
	CARm	CAU	CARm	CAU
	n=19 n (%)	n= 21 n (%)	n= 19 n (%)	n=21 n (%)
Reach				
Proportion of clients who participated	97 of 209 (46.4)	110 of 231 (47.6)	-	-
Dose delivered				
Stimulate the client to take control	16 (84.2)	-	13 (68.4)	-
Focus on strengths	16 (84.2)	-	16 (84.2)	-
Involve social network	10 (52.6)	-	8 (42.1)	-
Fidelity				
Number of personal contacts with clients (reported for 39 clients during study period)				
<2 contacts with client	-	-	7 (17.9)	-
≥2 contacts with client	-	-	32 (82.1)	-
Made a personal profile	3 (15.8)	-	5 (26.3)	-
Developed a personal plan	1 (5.3)	-	8 (42.1)	-
Mapped the social network	13 (68.4)	-	10 (52.6)	-
Involved social network	14 (73.7)	-	10 (52.6)	-
Context				
Changes in the organization (yes)	6 (31.6)	6 (28.6)	11 (57.9)*	5 (23.8)*
Experiencing changes in the organization				
Positive	3 (50.0)	2 (33.3)	1 (9.1)*	3 (60.0)*
Neutral	2 (33.3)	3 (50.0)	6 (54.5)*	0*
Negative	1 (16.7)	0	4 (22.2)*	1 (20.0)*
Education/training during research period (yes)	5 (26.3)	4 (19.0)	11 (57.9)	10 (47.6)
Satisfaction ((totally) agree)				
I apply the method in daily practice	19 (100)	-	18 (94.7)	-
I feel a better labour expert by applying the method	16 (84.2)	-	13 (68.4)	-
Quality of my work improves by applying the method	19 (100)	-	16 (84.2)	-
I expect to work more with the method in the future	19 (100)	-	15 (78.9)	-
I find it hard to find time to work with the method in daily practice	13 (68.4)	-	15 (78.9)	-
Applying the method in practice is good for the quality of my role as a labour expert	18 (94.7)	-	14 (73.7)	-

Table 2. Components of process evaluation at labour expert level (continued)

Components	Directly after training		9-months follow-up	
	CARm	CAU	CARm	CAU
	n=19 n (%)	n= 21 n (%)	n= 19 n (%)	n=21 n (%)
I expect that working with the method will improve the quality of labour experts' work	19 (100)	-	17 (89.5)	-

Note. CARm= intervention group; CAU= care as usual. Due to missing's the number and percentages do not always add up to the total number. * $p < 0.05$

Table 3. Components of the process evaluation at client level

Components	3-months follow-up (n=166)	
	Intervention group (n=80) n (%)	Control group (n=86) n (%)
Dose received (yes)		
Stimulated to take control yourself	45 (56.3)	53 (61.6)
Labour expert focused on strengths and not only on limitations	46 (57.5)	48 (55.8)
Social network involved in participation plan	17 (21.3)	11 (12.8)
Fidelity		
Number of personal contacts		
<2 contacts with LE	45 (56.3)	54 (62.8)
≥2 contacts with LE	34 (42.5)	30 (34.9)
Personal profile made (yes)	9 (11.3)	0 (0)
Personal plan developed (yes)	27 (33.8)	32 (37.2)
Social network mapped (yes)	16 (20.0)	25 (29.1)
Context		
Stressful life event during research period	28 (35.0)	27 (31.4)
Education/training during research period	20 (25.0)	15 (17.4)
Satisfaction		
Satisfaction guidance labour expert	49 (61.3)	52 (60.5)
Structured guidance labour expert	39 (48.8)	39 (45.3)
Guidance labour expert helped my re-integration	31 (38.8)	32 (37.2)

Due to missing's the number and percentages do not always add up.

Context

In both the intervention and control groups, about 30% of the labour experts reported organizational changes directly after the training. At 9-months follow-up, 11 (57.9%) labour experts of the CARm intervention and 5 (23.8%) labour experts of the control group reported organizational change, indicating a significant difference ($p=0.024$). The three most common organizational changes mentioned directly after the training were higher workload (CARm: 60.0% versus CAU: 16.7%), work role adjustment (20.0% versus 50.0%), and other job within the organization (20.0% versus 33.3%). Mentioned at 9-months follow-up were higher workload (18.2% versus 16.7%), work role adjustment (54.5% versus 33.3%), and other job within the organization (9.1% versus 33.3%). Organizational changes reported at 9-months were experienced positively more often by the labour expert in the CARm intervention than by the expert in the control group ($p<0.05$) (Table 2).

At 3-months follow-up clients in the intervention group were more involved in other education/training (CARm 25.0% versus CAU 17.4%). More clients in the intervention group than in the control group reported stressful life events (35.0% vs. 31.4%), but these differences were not statistically significant. The three most common life events mentioned were moving or renovating the house (CARm 20.0% versus CAU 19.2%), death of loved ones (32.0% versus 11.5%) and health complaints (12.0% versus 26.9%).

Satisfaction

Directly after the training, the satisfaction of the labour experts on the seven statements ranged from 68.4% to 100%. All labour experts reported that they applied the method in daily practice, they found that the quality of work was improved by the method, they expected to be working more with the method in the future, and they expected that working with the method would improve their own quality as labour experts. Nevertheless, in daily practice 68.4% of the labour experts found it difficult to find time to work with the method. At 9-months follow-up, satisfaction regarding the seven statements ranged from 68.4% to 94.7% (Table 2).

The satisfaction of the clients in the CARm intervention ranged from 38.8% (guidance of the labour expert helped my re-integration) to 61.3% (satisfied by the guidance of the labour expert); in the control group satisfaction ranged from 37.2% to 60.5% (respectively).

Discussion

The aim of this study was to conduct a process evaluation, based on the framework of Steckler and Linnan, to evaluate whether the CARm intervention had been conducted according to protocol [18]. For the study we included data from labour experts and clients of both the CARm intervention and a control group, on the components: recruitment, reach, dose delivered, dose received, fidelity, contextual factors, and satisfaction with the training and treatment.

The process evaluation revealed that only a small part of the clients in the CARm intervention group had received all elements of the intervention. When comparing the

results between the labour experts and clients in the intervention group regarding dose delivered and dose received, according to the clients fewer activities had taken place (dose received) than were reported by the labour experts (dose delivered). Moreover, fidelity to the intervention program was low (personal profile, personal plan, and social network) to reasonable (>2 personal contacts). Overall, the satisfaction of the labour experts with the CARm intervention was high, but the clients in the intervention group scored much lower: only 38.8% considered the guidance helpful for return to work.

To our knowledge, this was the first time that persons with multiple problems were offered a strength-based intervention approach for (re)integration into the labour market. Our findings may indicate implementation failure, as implementation was not performed according protocol for most of the key elements. Although the labour experts were trained in the elements of the CARm intervention, and their organization (UWV) supported this study, we found that in only a small number of clients was it possible to provide the key elements of the intervention as planned. According to the labour experts, the majority of clients had received two of the three key components of the CARm intervention: stimulate clients to take control, and focus on strengths not only on limitations; however, the third element (involving the social network) had been delivered in only half of the cases. Remarkably, fewer than half of the clients in the CARm intervention group reported that they had had two or more contacts with their labour expert, and only a small percentage of the clients reported that a personal profile, a personal plan and/or social network map had been made. Moreover, when comparing the results of the clients in the CARm intervention group and the control group, no significant differences were found for the measures of fidelity and dose-received. This may indicate that the care delivered to the clients was similar for both the CARm intervention and control groups. Although we used a randomized controlled trial, and trained only the labour experts in the intervention group in the CARm approach, the invitation during the recruitment procedure may also have made the labour experts of the control group aware of the strength-based emphasis of the intervention. The high reach of the labour experts (86% of the labour experts randomized to the intervention group participated in the intervention, as well as 91% of the labour experts in the control group) may indicate that all participating labour experts were very motivated and interested in the CARm intervention and may be regarded as 'early adopters'. This may hinder a strong distinction between the intervention and control groups. Another explanation may be that the clients in the control group gave desirable answers to the questions in the survey, as they knew they were participating in a trial, or the questions were not detailed enough to catch nuanced differences between the clients of both groups. In hindsight, we should have drafted the protocol differently. We, for example did not collect data about dose-delivery and fidelity from the labour experts of the control group, as we did not want to raise awareness of the key elements of the intervention. However, now we lack insight into the conduct of the care as usual, and it remains unsure if the differences between the intervention and the care as usual is indeed significant. A consultation reports of the clients with the labour experts, we were unable to compare the care delivered to the clients of the CARm intervention with that delivered

to the control group. Furthermore, as the intervention was not implemented correctly, it is not possible to exclude theory failure being the cause of the lack of effectiveness, suggesting that the CARm intervention is not superior to care as usual.

In our feasibility study we demonstrated that the CARm intervention had good applicability, and we concluded that it was feasible and promising for disability benefit recipients with multiple problems after several adjustments to the protocol in line with the results of the feasibility study [11]. Nevertheless, the effectiveness study did not show the CARm intervention to have a superior effect on (re)integration into paid employment when compared to care as usual [13]. This process evaluation revealed that the execution of CARm in a 'real setting' was less successful; in particular the fidelity, dose delivered, and dose received were low in the intervention group. Unfortunately, our process evaluation is not the first in field work and health to show disappointing findings. Previous studies have also reported poor fidelity due to delay in execution of programs, poor registration of program components, and violations of protocol [21,23,24]. The large variation for fidelity, dose-delivered, and dose-received in our study may be due to the complexity of the CARm intervention. At about the same time as we conducted our study, Bitter et al. (2017) also performed an effectiveness study based on the Strength Model by Rapp: the Comprehensive Approach to Rehabilitation (CARE) in patients with severe mental illnesses [26]. Although Bitter et al. (2017) did not perform a process evaluation along with their effect study on CARE, they did report several barriers with regard to their implementation, such as: changes in staff and management, a negative work climate, and a lack of practical and moral support from the organization. Similar contextual barriers may have played a role in our study. For example, during the intervention some labour experts from the CARm intervention group reported that they were no longer involved in the guidance of their clients, as they had switched jobs, or were unable to offer the key components of the CARm intervention due to high workload. As researchers, we should have been more aware of the increasing work and caseload of the labour experts during the study period. Although a compensation fee and approval of the managers were arranged at forehand, to compensate the additional time the intervention entails, we are unsure if labour experts did have additional time to conduct the intervention. Checking this, should also have been part of the protocol. However, as the higher workload may have affected the fidelity and dose delivered to the clients in the CARm intervention group, we conducted a post-hoc analysis to compare the results of two subgroups of clients in the CARm intervention group: (1) clients whose labour expert reported an organizational change, versus (2) clients whose labour experts reported no organizational change (see Table 4). However, we found no difference between the two subgroups regarding the received components of the intervention as reported by the clients. This may indicate that unforeseen organizational changes did not impact our findings.

Table 4. Comparison of components of the process evaluation between clients in the CARm intervention group guided by labour experts, with and without organizational changes

Components	Clients of labour experts of intervention with(out) organizational changes (n=80)	
	No organizational changes N=38	Organizational changes N=42
Dose received (yes)		
Stimulated to take control yourself	22 (57.9%)	23 (56.1%)
Labour expert focused on strengths and not only on limitations	21 (55.3%)	25 (61.0%)
Social network involved in participation plan	9 (23.7%)	8 (19.5%)
Fidelity		
Number of personal contacts		
<2 contacts with LE	22 (59.5%)	23 (54.8%)
≥2 contacts with LE	15 (40.5%)	19 (45.2%)
Personal profile made (yes)	5 (29.4%)	4 (25.0%)
Personal plan developed (yes)	11 (28.9%)	16 (39.0%)
Mapping social network (yes)	7 (18.4%)	9 (22.0%)
Context		
Stressful life event during research period	14 (36.8%)	14 (33.3%)
Education/training in research period	6 (15.8%)	14 (33.3%)
Satisfaction		
Satisfaction guidance labour expert	21 (55.3%)	28 (70.0%)
Well-structured guidance labour expert	16 (43.2%)	23 (59.0%)
Guidance labour expert helped my re-integration	14 (37.8%)	17 (43.6%)

Strengths and limitations

The first strength of this study is its structured process evaluation; following the well-known framework of Steckler and Linnan (2002) to structure our process evaluation, we were able to reveal, analyse and describe the key process evaluation elements [18]. Second, we collected quantitative data to gain insight into the extent of implementation of the intervention. We expanded our data collection, including qualitative data to gain deeper insight into contextual changes. Third, for the process evaluation data were collected from both labour experts and clients; this gave us subjective information from both perspectives. However, large variations existed between both data resources, as

well as within the groups of labour experts and clients. It would have been desirable also to have data available from other objective data sources, like administrative records (for information about the number of contacts) and consultation reports (for information about the different program activities). Using multiple resources (subjective and objective, qualitative and quantitative) would have enabled us to study in more detail the quality of the implementation process, and to better understand what had or had not been successful.

Another limitation of our study is a potential selection bias, involving both labour experts and clients. Because participation by the labour experts was voluntary, we may have especially reached labour experts who were motivated to use the methods provided in the CARm intervention. This could hinder a clear distinction between the intervention and control groups. Moreover, as the recruitment of eligible clients was conducted by labour experts, we had no insight into which clients were selected for the study. Furthermore, not all labour experts and clients included in the study completed all questionnaires for the process evaluation. In particular, data regarding the number of personal contacts were highly inadequate, as they were collected for only 40% of the clients. This latter limitation can be explained by the fact that this was not part of the study design at the start of the intervention. When recruitment of the clients began, this assignment was added for the labour experts. A stronger emphasis on personal contact, and measurement of these contacts, would be a recommendation for further research.

Implications for research and practice

Although theory failure may have occurred, we are convinced that many elements of the CARm method fit well within modern labour market policies. Further research is needed to investigate the effect of the CARm method on outcomes like (re)integration into paid employment, but also on whether the tailor-made program supports the needs of clients, mobilizes their social networks, and leads to a decrease in their perceived problems. Positive effects on these elements could be a first, but very important, step in the process of (re)integration. However, real life research (focusing for example on (re) integration into work) is complex, time consuming, and involves many stakeholders. To evaluate the effectiveness of an intervention, it is therefore extremely important that all stakeholders support its implementation and create circumstances to conduct the study according to protocol. For example, organizations, like UWV, should provide sufficient time for professionals to provide any form of intervention to improve the reintegration into the labour market for clients with multiple problems, or researchers should adapt the interventions to the limited time available. Additionally, organizations should be aware that professionals participating in an (intervention) study should not be transferred to other departments or jobs, or have their workload increased during the conduct of the study; such actions can have major consequences on study results regarding the effectiveness of the intervention by preventing it from being implemented according to protocol. In addition, researchers should be more aware during the conduct of the study, if the study is implemented according to protocol. The usage of a digital application including a

checklist could help participants to carry out the intervention according to protocol, but also give the research insight when key elements are not provided according to protocol during the conduct of the study. Insight in possible barriers, like time constraints, give researcher the possibility to act at the moment, and make adjustments to the protocol. As this is not in line with the RCT approach, other study designs, like realist evaluation and action research, might be more appropriate for real life research.

Conclusion

The lack of effect of our strength-based reintegration method, CARm, for clients with multiple problems on work disability benefits, compared to care as usual was almost certainly caused by implementation failure, as the process evaluation reveals that most key elements of the intervention were not implemented according to protocol. However, the satisfaction of the labour experts regarding the training module and the intervention was high. As we are confident that many elements of the CARm method align with the current labour market policies, more in-depth research is necessary to further study its effect on (re)integration into the labour market.

Appendix

Tabel A1

Recruitment procedures	Execution of the procedure
<p>Every labour expert working at the Public Employment Service of the UWV was eligible for recruitment. In total this group consisted of 353 labour experts, divided over 11 different districts of the UWV in the Netherlands. The managers of the UWV selected one contact person per district. We then asked these contact persons to forward to all labour experts in their district our invitation to participate in the study.</p>	<p>Management of all 11 districts of the public employment service were informed with an oral presentation by the researchers. Ten of the 11 districts agreed to participate in the study and mailed a recommendation letter to all labour experts working in their district. Included with the recommendation mail were an information letter from the researchers regarding the intervention (training and method) and a schedule of the training.</p>
<p>Labour experts who were first to agree to participate were included in the study, up to a maximum of 40 labour experts.</p>	<p>We held a meeting to inform all included labour experts of their role in the study. Recruitment of labour experts took place from February until March 2016. After inclusion, the intended labour experts were randomized to the intervention or care as usual groups (CAU). Researchers organized separate instruction meetings for the control and intervention groups. The intervention group was informed about the intervention and instructed about the inclusion of clients. The control group was instructed only about the inclusion of clients. The participating labour experts received a consent form.</p>
<p>Clients who met the inclusion criteria were recruited by their labour expert</p>	<p>Clients who met the following criteria were eligible for the study: they had been granted a work disability benefit and assessed as having residual work capacity but were unemployed or not working the complete number of hours according to their residual work capacity; they were aged 18-65; and they were able to understand and write Dutch.</p>
<p>Client inclusion in the study</p>	<p>After agreement to participate, the name, address and e-mail address of the clients were collected by the labour expert and sent to the research assistant. The research assistant then sent by mail a letter to inform the client in more detail about the study, along with a consent form and the first questionnaire. After returning the informed consent form the client was included in the study.</p>

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Chapter 7

General discussion

General discussion

The overall aim of this thesis was to gain more knowledge regarding the added value of a more comprehensive holistic approach of return-to-work guidance for disability recipients with multiple problems. In this general discussion I summarize the main findings of the thesis and discuss them in a broader context. I also address methodological considerations, and provide implications for policy, practice, and further research.

Main research findings

Chapters 2 and 3 evaluated the feasibility of two methods involving a comprehensive holistic approach for use by labour experts to support work-reintegration by claimants with multiple problems. **Chapter 2** focused on the feasibility of the Family Group Conference. The aim of this intervention is to develop a return-to-work plan together with the client, his or her family, and professionals, including information about the perceived problem(s), the action(s) needed to address the problem(s), and the participant(s) assigned to execute these actions. We conducted a pre-post-intervention mixed-method design, using questionnaires, semi-structured interviews, and return to work plans drafted in Family Group Conferences. We followed a convenience sample of labour experts, clients, and facilitators for a period of six months. Our main findings showed that the Family Group Conference may be a feasible approach to develop a return-to-work plan for a selected group of persons on disability benefits. Overall, acceptability and implementation were well evaluated. However, the Family Group Conference seemed to be more feasible for highly educated clients, and less feasible for clients with a non-existent or very poor social network. As for acceptability, directly after the Family Group Conference, qualitative analysis of the return-to-work plans showed that most reported problems, as well as planned actions, were related only to work, and not to other domains. We concluded that the Family Group Conference may be a promising approach for a selected group of claimants (i.e., higher-educated, and with a social network). It can be used in activation strategies to enhance return to work of persons who are receiving disability benefits and are supported by family members and significant others in- and outside the family. In particular, the involvement of the social network was reported as an important condition for the client to take actions towards solving the identified problems.

Chapter 3 described the development and feasibility of the 'Comprehensive Approach to Reintegrate persons with Multiple Problems' (CARm), a strength-based method which enables labour experts to systematically build an individual relationship with each client, aiming to support clients in their needs and to mobilize their social networks. The labour expert drafts a personal profile of the client, including information regarding his/her current situation, needs, experiences, strengths, abilities and skills, and an inventory of external resources in the client's social network. Based on this profile, the client and labour expert jointly develop a participation plan to set and prioritize goals, and to tackle the client's problems. As part of the CARm method, a seven-day training module was

developed to train the labour experts in its elements. To assess the feasibility of potential use of the CARm method, eight labour experts were trained, filled in questionnaires, and joined a discussion meeting. They all agreed that the training module was feasible and applicable for further implementation in their practice to support clients with multiple problems. As the method is more time-intensive than care as usual, both for learning the method and working with the client, labour experts concluded that the method is best suited for clients with complex problems, and broad management support is vital to implement the method in daily practice.

As the CARm method focuses on the labour experts themselves, giving them tools on how to better support clients with complex problems, we decided to further evaluate it in a randomized controlled trial. **Chapters 4-6** presents findings of this trial regarding the effectiveness of the CARm intervention on level of functioning and (re)integration into paid employment in a sample of disability benefit recipients facing multiple problems, compared to those receiving care as usual. A total of 207 clients were included in this trial; n=97 in the intervention group and n=110 in the care as usual group.

The baseline data of the trial study were used to explore the prevalence, types, number, and combinations of problems experienced by disability benefit recipients, and to study the associations of socio-demographic characteristics and type of diagnosis with the number of perceived problems (**Chapter 4**). The prevalence of multiple problems was high; 87% of the participants reported at least two problems, and the average number was three. Most reported problems were related to physical health, mental health, and/or an educational mismatch. Up to 25% of participants experienced these problems as a severe barrier for participation in society and return to work. Moreover, we found that clients with multiple problems face severe and intertwined problems in different domains of life. Health problems most frequently occurred together with a mismatch in education, financial problems, or care for family members. In the multivariable model, the number of problems perceived by participants was negatively associated with educational level; i.e., higher educated participants perceived fewer problems. We observed that the problems and combination of problems of clients on disability benefit were diverse, and included a wide range of non-health related problems which could negatively impact return to work guidance of claimants with multiple problems in work disability settings.

The effect evaluation of the randomized controlled trial (**Chapter 5**) showed no significant superior effect on paid employment and functioning within one year follow-up, compared to care as usual, in people with multiple problems on a work disability benefit. Moreover, clients supported by a labour expert from the care as usual group were significantly more often in paid employment during the follow-up period of one year. The results of the trial indicated no differences on secondary outcome measures (general health, quality of life, and social support) between the two groups. To determine whether the intervention was delivered and received according to protocol, we conducted a process evaluation along with the intervention study (**Chapter 6**). Most labour experts reported that they stimulated clients to take control, and that they focused on strengths as well as limitations; however, for only a small percentage of clients were a personal profile

and personal plan drafted and the social network involved. Although the satisfaction of the labour experts with the CARm training was high, in practice they found it difficult to find time to work with the method. Moreover, the process evaluation revealed that most key elements of the intervention had not been implemented according to protocol. Therefore, the lack of a superior significant effect of the CARm intervention compared to care as usual may have been caused by implementation failure. However, we could also not exclude theory failure as causing the lack of effectiveness.

Reflections on the findings

In the Dutch social security system, labour experts working at the Social Security Institute (UWV) play an important role in supporting the re-integration process of more complex clients, i.e., clients who have been granted work disability benefits after two years of sick leave. This group of clients, who have residual work capacity but are often unemployed, are the main target population in this thesis, as they have been inadequately studied in the literature. This dissertation may contribute knowledge on how best to guide these clients, as current programs designed to foster labour market integration of sick-listed people have as yet been unsuccessful.

First, we have gained more insight into the complexity of the problems faced by these clients. This may help labour experts to recognize the existence of multiple problems and how they affect employment chances. The findings in Chapter 4 confirm that claimants on long term disability benefits perceive a cluster of problems, not only health-related (physical and/or mental), but also present in other domains (finance, education, informal care for family); all of these may hinder return to work. In addition, it may be that these non-health related problems are a greater hindrance to the return-to-work process than the health condition. Given the heterogeneity of the problems, the current return to work focus on health problems as the main issue, seems too narrow, and is therefore not effective.

Both feasibility studies showed that labour experts were positive about the use of a holistic and person-centred approach in return-to-work guidance of claimants with multiple problems; however, they found it difficult to implement the approach in daily practice. Although the experts were trained to communicate with clients to stimulate them to take an active role in the RTW process, and to map social networks to identify family or friends who could offer support, they apparently found it difficult to transfer their knowledge and skills into practice, and to activate the client and his/her social context. Consequently, no effects of the CARm intervention were found on both the primary and secondary outcome measures.

The process evaluation study showed that in only a small number of clients the key elements of the intervention had been provided as planned. Due to limited time for contact between the labour experts and the clients, and often only by mail or telephone, they had little opportunity to talk about strengths, or to identify and activate family or friends to ask for help, even though building an individual relationship with the clients was

one of the key elements of the intervention. Particularly clients with long-term disabilities, who are asked to change from benefit dependency to earning an income by working, may feel insecure about their work capacity; in such cases resistance to change may be an important factor behind stagnation. Moreover, as labour experts are part of the social security system, clients may not automatically accept them in their role as supporting professionals.

Taking into account that clients with multiple problems experience great distance from the labour market, to find sustainable employment they may need more time than is provided by regular RTW interventions. This applies especially to interventions focused not only on reintegration into work but also on other perceived problems, as well as on mobilizing the social network and addressing strengths. Therefore, the follow-up period of 12 months may have been too short to measure effects on the primary outcome measures.

For labour experts a strengths-based approach means a shift from their role as professional to a role as facilitator in return-to-work guidance. To support labour experts in this new role we added two modules to the CARm training. The first module focused on client-centred motivation strategies, and the second module focused on dealing with motivation against resistance. We expected that the training would help the labour experts to implement the CARm approach successfully with the intended clients in daily practice, as the overall acceptance and satisfaction of these experts with the CARm training and method was high. Although the amount of time available for the training was high (five days), it may not have been sufficient to train the experts in the strengths-based approach, to develop the required skills, and to transfer these to practice. Unfortunately, we did not collect detailed information about this in our study. Literature on motivational interviewing, which also aims to facilitate return to work through positive and person-centred counselling, indicates that for professionals the process of understanding such a new approach requires a cognitive shift. They need to shift from wanting to be in control, being an expert with a solution for the client's problems, to having a partnership with the client, giving advice but allowing clients to solve their own problems [1]. Such a cognitive shift takes time. In addition, a lack of confidence in their ability to implement CARm may play a role; feeling insecure about their competences in applying CARm may have led labour experts to revert to previous, more familiar, guidance techniques.

Mobilizing the client's social network is an important element of a strengths-based approach. The role of social support by family and friends in return-to-work trajectories has been broadly studied. Previous studies have found that significant others can be a valuable source of support to enable workers to cope effectively with their chronic disease and to work, despite their health complaints. However, they can also hinder a worker's recovery and work participation, for instance when they are overly concerned and/or exert pressure on the worker not to work [2-6]. In our intervention study, for only a small number of clients was social network mapping conducted. Moreover, activating the social network did not seem possible; many clients had either a non-existent or very poor social network, and too few significant others who were able and willing to provide social support. These findings correspond with previous studies on social resources. It has been

demonstrated that the number of social resources varies between groups of individuals, and that vulnerable groups, i.e., clients in public mental health care, multi-problem families in youth care, and longer-term social assistance recipients have fewer social resources [7-11]. These groups with scarce informal resources thus lack social support [12]. In such cases, activating the social network should first focus on restoring contacts with family or friends to strengthen clients' social capital; this in turn will reduce their vulnerability, as they can come to rely more on the help of their family and friends [13]. Other care disciplines also recognize the importance of the social network; for example, Visscher et al. suggest investing in the development of specific methods to activate this network [14].

Methodological considerations

An important strength of this thesis is that we were able to perform a feasibility study, an effect study, and a process evaluation of the CARm intervention. The feasibility study supported the development and adjustment of the training and the method, and helped to determine their applicability in labour expert practice. In addition, the intervention study meets most of the CONSORT criteria for high quality clustered trials, and the process evaluation gave us insight into its implementation. Furthermore, the longitudinal study design of the intervention study allowed us to prospectively follow clients for one year in their return-to-work process.

In addition to conducting the feasibility study, we also spoke to various stakeholders (managers of the UWV, labour experts and trainers) prior to the intervention study. This approach enabled us to collect data on what they considered relevant and important elements to improve guidance of clients with multiple problems, and to understand the elements of the strengths-based intervention more broadly, and from different perspectives. Because clients were recruited by labour experts working in all regions of the Netherlands, we were able to include a geographically representative sample of clients, from regions both rural and urban, and economically strong and less strong. Furthermore, for employment status and diagnosed disease we used register data; because these are from an external source, they minimize the chance of bias due to self-report. We used both self-report and register-based data for the independent and outcome measures of our intervention study. Although both data sources are considered to be valuable for research, register-data are preferable [15]. Especially for outcome measures like paid employment, register data may be more accurate than self-reported data. Additionally, as we were able to link our baseline questionnaire data to the register data on paid employment, we had no missing data upon follow-up on this important outcome measure.

Nevertheless, several methodological considerations must be taken into account regarding the development of the CARm intervention, the recruitment phase, the measurements, and the missing data in our analyses. First, because we did not contact clients with multiple problems during the preparation phase of our study we were not able to include their opinions on how to improve their functioning. If we had done so, we would have been better able to meet their needs, and this could have had a positive effect on

the study outcomes. Moreover, in the recruitment phase we were not able to recruit the desired sample size, despite multiple reminders and updates sent to the labour experts. During the training, the labour experts were informed about the number of clients each had to recruit, and they believed beforehand that this would be feasible. However, many of the recruited clients refused to participate, or failed to return the questionnaires; their main reasons for refusing were: too burdensome, not interested, and health problems. As our results did not show a trend toward significance in favour of the CARm intervention, we assume that the intervention would have had no significant superior effect over care as usual even if the sample size had been sufficient.

Further, in both the feasibility and the intervention studies, selection bias may have occurred at the labour expert level, as well as at client level in the intervention study. As participation by the labour experts was voluntary, we may have reached labour experts who were more motivated in using the methods provided in the CARm intervention. Moreover, as recruitment of eligible clients in the intervention study was conducted by labour experts, we had no insight into the selection criteria for these clients. However, our study sample of participating clients shows a distribution over the various categories of sociodemographic characteristics (i.e., gender, educational level), and no significant differences in sociodemographic characteristics between the CARm intervention group and the CAU group. This suggests that selection by the labour experts was random, as was intended.

For the effectiveness study we used register data for the primary outcome measure. However, we had the opportunity and research budget for only one year of follow-up. This follow-up period may have been too short to measure a superior effect of the CARm intervention above care as usual on paid employment, as a lock-in effect may have occurred. A lock-in effect means that 'participants entering a program or intervention to improve employment outcomes can be too busy following that program instead of spending time looking for a job' [16-17].

A final limitation was the lack of organizational support to help the trained labour experts to implement the CARm intervention in daily practice. The intervention study indicated that, despite support at the organizational level, some labour experts felt no management engagement at the office level. For example, caseload adjustment was often lacking, even though working according to CARm is more time consuming than care as usual.

Recommendations for policy and practice

Based on the findings of this thesis and the topics discussed in this chapter, we can make several recommendations for use by labour experts, UWV, policy makers and health insurance companies.

Recommendations for labour experts

An important finding in this thesis is that most claimants on long-term work disability benefit face multiple problems in different life domains, which may hinder them from participating in work. In particular, non-health related problems may hinder their participation. It is, therefore, important for labour experts to ask clients about all of their problems, and not only about health-related problems. After mapping out the problems in all life domains, the client should prioritize the problems. The labour expert can facilitate this process, also when it concerns non-health problems. It is important for labour experts to feel responsible for the 'whole' client, with all the problems that may prevent his/her participation in work. These experts should dare to take ownership. Furthermore, it is important that they consider not only the limitations, but also the strengths, of the client and his/her social network. What can the client himself do, and what support can be provided by the partner, family members, or friends? As many work disability benefit claimants are hesitant about this, labour experts should help them to map their social network and discover how it can be activated in a positive way.

Recommendations for UWV

This thesis focused on the training and guidance of labour experts to support clients with multiple problems toward work participation. However, the UWV plays a key role in creating the right conditions for labour experts to offer this support. Training is needed to enable labour experts to map out the strengths and problems of their clients, and to support involvement of their social network. The UWV should provide these experts with appropriate courses on the Strength method. Furthermore, to enable more effective contact with their clients, the professionals should have more consultation time per client. Although this may initially involve a higher financial investment, in the long-term it may result in more sustainable work participation, thereby reducing the financial burden. Moreover, this approach aligns with the ongoing shift within UWV toward implementing a more tailor-made holistic approach to clients, by taking into account both biomedical and psychosocial factors, and by offering multidisciplinary triage, in line with the concept of Social Medical Centres, aimed at encouraging shared decision-making regarding how support will be organized and by whom, and by having a single contact point for the client.

Recommendations for policy makers, professional associations, and educational institutes

The fact that clients perceive multiple problems in different domains of life suggests that a multi-domain intervention strategy, using different perspectives from professionals working in different domains (social work, healthcare, addiction services, re-integration) may be more beneficial [18]. Unfortunately, integrated services are not routinely available [19-20] and collaborative policymaking across health, employment, and welfare agencies remains an exception [21]. Besides, to strengthen collaboration between professionals within different domains, more awareness about the importance of such collaboration is essential. This calls for interprofessional education [22,23].

A recent Dutch initiative to stimulate interprofessional collaboration within the domain of social security involves a new multidisciplinary ICF-based instrument for the assessment of work capacity, and guidance in return to work, of employees on sick leave: the so-called (in Dutch) 'Beschrijving van Arbeidsbelastbaarheid en Re-integratie' [24,25]. This instrument has been developed to improve collaboration among occupational physicians, insurance physicians, and labour experts. In the case of clients with multiple problems, it would be advisable to extend this instrument to stimulate collaboration with other professionals, outside reintegration, who work in the social domain (e.g., social welfare- and addiction workers). Further training is needed to facilitate and stimulate this collaboration.

Recommendations for future research

As the effectiveness of the CARm intervention could not be studied adequately because of several implementation failures, further research is needed for an accurate evaluation. Instead of using a randomized-control trial, we would recommend using a realistic evaluation design, focused more on understanding how contextual factors influence implementation of person-centred interventions like CARm. Such an approach could help to better understand how such interventions work within the social security setting, and what conditions are likely to hinder or promote successful outcomes. Further research should also include other outcomes to evaluate the effectiveness of the CARm intervention: e.g., whether the tailor-made program supports the needs of clients, mobilizes clients' social networks, and leads to a decrease in the client's perceived problems. This could be a first, but very important, step in the process of reintegration for clients with multiple problems.

Additionally, to confirm whether CARm participants indeed achieve better than CAU participants in return to paid employment and sustainable long-term employment, we would recommend a follow-up time longer than 12 months.

General conclusion

The findings in this thesis contribute to the improvement of return-to-work guidance of disability recipients by labour experts from the Dutch social security agency. An important finding is that a majority of the work disability benefit recipients perceive multiple problems. These problems are complex, and related not only to physical and/or mental health, but also to problems in other domains (finance, education, informal care for family) that may hinder return to work. Furthermore, we found that labour experts were positive about a holistic, person-centred approach in return-to-work guidance of clients with multiple problems. However, implementing this approach in daily practice was difficult. Although the labour experts were trained in how to communicate with the clients to stimulate them to take an active role in the return-to-work process, and how to map social networks to identify family or friends who could support the client, they

found it difficult to find time to apply the method in daily practice. For future studies, we would recommend a study design other than a randomized controlled trial, as well as longer follow-up time, to investigate whether a person-centred approach would augment sustainable paid employment in disability benefit recipients with multiple problems.

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Summary

In the past decades, many Western countries have introduced active labour market policies to encourage employment of people receiving benefits. However, a large proportion of persons claiming work disability benefits face multiple problems: they have to deal with two or more related, and possibly mutually reinforcing, problems over longer periods of time. As the multiple problems are usually interconnected and interact with each other, they cannot be addressed separately. However, most interventions are problem-centred, i.e., they focus on seeking expert and compensatory support separately for each problem. Consequently, they may be less successful for claimants facing multiple problems. A more comprehensive, holistic approach, simultaneously addressing multiple problems, may be more effective to help disability recipients to make a successful transition to the labour market, especially if it is linked to their specific needs and wishes, and activates their social network. Social network intervention models and strength-based approaches have been developed for youth- and mental health care, but are relatively new in the field of work disability and reintegration.

The overall aim of this thesis was thus to gain better knowledge on the added value of a more comprehensive, holistic approach to return-to-work guidance for disability recipients with multiple problems. The following three research objectives were formulated:

1. to explore the feasibility of the Family Group Conference and the Comprehensive Approach to Reintegrate persons with multiple problems (CARm, adapted from the CARE method) for use in return-to-work guidance of long-term unemployed disability recipients with multiple problems (Chapters 2 and 3);
2. to study the concept of 'multiple problems' in the context of work disability and return-to-work, and to explore the prevalence, types, number and combinations of perceived problems, as well as associated characteristics (Chapter 4);
3. to evaluate process outcomes and the effectiveness of the CARm intervention

for helping long-term unemployed disability recipients with multiple problems to have paid work (Chapter 5 and 6).

Chapter 2 presents a feasibility study on the applicability of the Family Group Conference to work reintegration. Family Group Conference originated from Maori cultural practice in New Zealand, and was further developed for child welfare services in the late 1980s. The emphasis of Family Group Conference on client empowerment and self-management corresponds well with current activation strategies encouraging unemployed persons to take their own responsibility to find work. Labour experts from the Dutch Social Security Institute: the Institute for Employee Benefit Schemes (UWV) selected clients eligible for a Family Group Conference.

Questionnaires, semi-structured interviews and return-to-work plans, pre- and post-interventions were used to study the demand, acceptability, implementation and limited efficacy of perceived mental health, and level of participation. Of the 28 eligible clients, nine (32%) participated in a Family Group Conference. The satisfaction of these clients

was positive, with 7 on a 10-point scale. Furthermore, in all nine conferences a return-to-work plan was drafted. Perceived mental health and level of participation improved slightly during follow-up, and most actions in the return-to-work plans were work related. Six months after the Family Group Conference, five of the participating clients returned to paid or voluntary work. These results showed the potential of the use of Family Group Conference in return-to-work trajectories in a selected group, e.g., higher educated people with a social network.

Chapter 3 describes the development and feasibility study of the Comprehensive Approach to Reintegrate persons with multiple problems (CARm) intervention, a training to promote employment of work-disability benefit recipients. The CARm intervention is derived from the strength-based Comprehensive Approach to Rehabilitation (CARE), a Dutch intervention method used by mental health care professionals. The rationale of the CARm method is based on the main principles of the Strength model, which enables labour experts to systematically build an individual relationship with each client, aiming to support clients in their needs and to mobilize their social networks. The labour expert drafts a personal profile of the client, including information on the client's current situation, needs, experiences, strengths, abilities and skills, and an inventory of external resources in the client's social network. Based on this profile the client and labour expert jointly develop a participation plan to set and prioritize goals, and to tackle the client's problems.

We conducted a feasibility study with eight labour experts to determine the applicability of CARm. We used a one-group, pre-post design, and the experts completed self-report questionnaires at baseline (before the start of the training), directly after completion of each of the seven training days, directly after the end of the complete training, and after three months. In addition, we organized a semi-structured discussion meeting with the participating labour experts directly after the training. Based on the framework of Bowen we studied acceptability, demand, implementation and practicality. The majority of the eight participating labour experts noted an improvement in their ability to ascertain developmental needs, opportunities and threats in the client's situation. Three months after the training, labour experts almost unanimously agreed on the statements 'I expect to use the CARm method more frequently in the future' and 'I use the CARm method in daily practice whenever possible'. The overall rating for the training on a scale from 1 to 10 was 7.6 (range 7–9). Overall satisfaction with the trainers was good. The CARm method and training were found to be a feasible approach to facilitate labour experts working at the Social Security Institute's reintegration service, to support clients with multiple problems. Sufficient managerial support for participating labour experts was identified as a key factor for successful implementation of CARm.

In **Chapters 4-6**, using a sample of disability benefit recipients facing multiple problems, compared to those receiving care as usual, we described findings of our randomized controlled trial to evaluate the effectiveness of the CARm intervention on (re)integration into paid employment, and on level of functioning. We recruited 45 labour experts, 40 of whom eventually participated in the study 19 in the CARm interventions and 21 in the CAU group. The mean age was 50 years, 53% were female, and 35% were

working in an urban area. Subsequently, the labour experts recruited the clients. In total, 207 clients were included in the trial; n=97 in the intervention group and n=110 in the care as usual group.

Chapter 4 presents the results of the cross-sectional study on the prevalence, types, and combinations of multiple problems among recipients of work disability benefits. Perceived problems were assessed using a self-constructed questionnaire, asking the participants if they experienced problems in the following areas: (1) physical health, (2) mental health, (3) financial problems, (4) care for family or children, (5) educational mismatch (too low or not appropriate), (6) problems with the Dutch language, (7), problems with police or justice, (8) housing, (9) addiction, and (10) domestic violence. These data were linked to data on diagnoses and employment status from register data of the UWV. According to the following definition: “there are multiple problems in persons when they have to deal with two or more related and possibly reinforcing problems for a longer period of time, and the person concerned is unable to develop and conduct adequate management with regard to control or solve the problems, resulting in problematic participation in society and labour market”, 87% of the participants reported multiple problems. Most problems were related to physical health, mental health, and/or an educational mismatch. Up to 25% of participants experienced these problems as a severe barrier. Because many clients perceive problems additional to their health problems, a focus only on physical or mental disorders is too narrow to support return-to-work.

In **Chapter 5**, we studied the effectiveness of the CARm intervention by means of a randomized controlled trial, with an intervention- and control group, and with a 12-month follow-up period. Forty labour experts were recruited and allocated either to the CARm intervention (n=19) or to the control group (n=21). The labour experts in the intervention group followed a five-day training regarding the CARm intervention; the labour experts in the control group received no additional training. All labour experts were asked to recruit clients to participate in the study. The total sample consisted of 207 clients 97 in the intervention group and 110 in the control group. The mean age of the clients was 35.4 years (SD 12.8); 53% were female; 30% had a low education level; 34% were living alone; and 87% reported multiple problems. The primary outcome measures were paid work and level of functioning; secondary outcomes were perceived general health, quality of life, and social support. After 12-months follow-up, no significant superior effect on paid employment and functioning was found for the CARm intervention, compared to care as usual, in people with multiple problems on a work disability benefit. Moreover, the clients supported by a labour expert from the care as usual group were significantly more often in paid employment during the follow-up period of one year. The results of the trial showed no differences between the two groups on secondary outcome measures. The absence of a superior effect of the intervention may be the result of a lock-in effect, failure in implementation or theory, or selection bias at the labour expert level. Although, based on these results, we could not recommend a widespread adoption of CARm, further in-depth evaluation of the process is necessary.

Chapter 6 describes the process evaluation of the CARm intervention, which was conducted alongside the effect evaluation and aimed to determine whether the intervention had been delivered and received according to protocol. The process evaluation revealed that most key elements of the intervention had not been implemented according to protocol. When comparing the results between the labour experts and clients in the intervention group regarding dose delivered and dose received, clients reported fewer activities as having taken place (dose received) than were reported by the labour experts (dose delivered). Moreover, fidelity to the intervention program was low (personal profile, personal plan, and involvement of the social network) to reasonable (>2 personal contacts). Overall, the satisfaction of the labour experts with the CARm intervention was high, but the clients in the intervention group scored much lower. The lack of effect of the CARm intervention may have been caused by implementation failure. However, it is not possible to exclude theory failure as the cause, as the intervention was not implemented correctly.

Chapter 7 presents the general discussion of this thesis, focusing on the main findings, methodological considerations, reflection on the main findings, and recommendations for policy, practice and future research. Overall, this thesis provides more knowledge of the complexity of the problems faced by disability recipients, the high prevalence of multiple problems among these recipients, as well as the fact that these problems are not only health-related (physical and/or mental). Problems in other domains (finance, education, informal care for family) may also hinder return-to-work. Moreover, we found that, although the labour experts were positive about the use of a holistic and person-centred approach in return-to-work guidance of recipients with multiple problems, implementing the CARm intervention in daily practice was difficult. Consequently, no effects were found on the outcome measures, and the process evaluation study confirmed that with only a small number of clients had the key-elements of the intervention been provided as planned.

Based on the findings of this thesis, several recommendations can be made for policy, practice and future research. As the majority of claimants on long-term work disability benefits face multiple problems in different life domains, which may hinder their reintegration into work, it is important that labour experts ask clients about all of their problems, and not limit their questions to health-related issues. In addition, it is important to consider not only the limitations, but also the strengths of the client and his/her social network, and to identify how these strengths can be activated in a positive way.

An important recommendation to the UWV is to offer the labour experts training in the key elements of strength-based approaches like CARm. Moreover, the experts need additional consultation time to systematically build individual relationships with clients, and to work together with them to develop a participation plan as starting point for the reintegration process. Last, taking into account the complexity of clients' problems, to support their further employment it is essential to strengthen collaboration between relevant professionals within different domains. An important focus of future research would be further development and evaluation of intervention strategies to support disability recipients with multiple problems. Recognizing the importance of understanding

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how contextual factors influence return-to-work interventions, a realistic evaluation approach may be more suitable than a randomized-controlled trial. Moreover, a follow-up period longer than 12 months would be needed to effectively assess the effect of sustainable reintegration into paid work.



Samenvatting

De afgelopen decennia hebben veel westerse landen een actief arbeidsmarktbeleid ingevoerd om de arbeidsparticipatiegraad van mensen met een arbeidsbeperking te bevorderen. Desondanks blijft de arbeidsdeelname laag en blijkt het vinden en behouden van werk niet eenvoudig. Een mogelijke reden hiervoor is dat een groot deel van de mensen multiproblematiek ervaart, hetgeen hen belemmert in het (re)integratieproces. Multiproblematiek betekent dat deze mensen gedurende langere tijd te maken hebben met twee of meer gerelateerde en mogelijk elkaar versterkende problemen. Omdat de problemen vaak met elkaar samenhangen en op elkaar inwerken, kunnen ze niet afzonderlijk van elkaar worden aangepakt. De meeste interventies richten zich op het bieden van ondersteuning voor afzonderlijke problemen, met als gevolg dat deze interventies minder succesvol zijn voor mensen met multiproblematiek. Een meer integrale en holistische aanpak, waarbij tegelijkertijd meerdere problemen worden aangepakt, is mogelijk effectiever om mensen met een arbeidsbeperking te begeleiden naar werk. Een dergelijke aanpak dient bovendien aan te sluiten bij de specifieke behoeften en wensen van de cliënt en - naast professionele hulp - ook het sociale eigen netwerk actief te betrekken bij het oplossen van de multiproblematiek en in het re-integratieproces. Dergelijke interventies zijn al wel ontwikkeld in de jeugd- en geestelijke gezondheidszorg, maar zijn nog relatief nieuw op het gebied van arbeidsongeschiktheid en re-integratie. Binnen het Nederlandse sociale zekerheidsstelsel vervullen arbeidsdeskundigen een belangrijke rol bij het begeleiden van de re-integratie van mensen met een arbeidsbeperking. Het is daarom van belang dat voor het toepassen van een dergelijke integrale en holistische benadering in het kader van re-integratie van cliënten met multiproblematiek, de rol van arbeidsdeskundigen wordt versterkt.

Het doel van dit proefschrift was om onderzoek te doen naar de toegevoegde waarde van een integrale, holistische benadering van de re-integratie begeleiding van mensen met multiproblematiek door arbeidsdeskundigen. De volgende specifieke doelstellingen zijn hierbij geformuleerd:

1. het onderzoeken van de toepasbaarheid van de Eigen Kracht-conferenties (EK-c) methode en de Systematisch Re-integratie Gericht handelen bij multiproblematiek (SRHm) methode in de re-integratie begeleiding van langdurig werkloze cliënten met multiproblematiek (hoofdstukken 2 en 3);
2. het onderzoeken van de prevalentie, soorten, aantal en combinaties van ervaren problemen, alsook de hiermee samenhangende socio-demografische en gezondheidskenmerken (hoofdstuk 4);
3. het evalueren (proces- en effect) van de SRHm methode in het bevorderen van arbeidsre-integratie bij mensen met een arbeidsbeperking met multiproblematiek (hoofdstuk 5 en 6).

Hoofdstuk 2 beschrijft de studie naar de toepasbaarheid van de Eigen Kracht-conferentie (EK-c), een netwerk aanpak gericht op arbeidsre-integratie. Deze aanpak is oorspronkelijk ontstaan uit de Maori cultuur in Nieuw-Zeeland en is eind jaren tachtig van de vorige eeuw ontwikkeld onder de naam Family Group Conference

voor de toepassing in de jeugdzorg. De nadruk van de EK-c methode ligt op de empowerment en zelfmanagement van cliënten en past daarom ook goed in de huidige activeringsstrategieën om mensen met een arbeidsbeperking aan te moedigen hun eigen verantwoordelijkheid te nemen om werk te vinden. In deze studie selecteerden arbeidsdeskundigen van het UWV WERKbedrijf cliënten die in aanmerking kwamen voor een EK-c. Vragenlijsten (voor en na de interventie), semigestructureerde interviews en re-integratie plannen werden gebruikt om de vraag, acceptatie, implementatie en werkzaamheid van de interventie op ervaren gezondheid en de mate van participatie te onderzoeken. Negen van de 28 cliënten (32%) die in aanmerking kwamen voor deze studie namen uiteindelijk deel aan een EK-c. De cliënten beoordeelden de methode positief, met een gemiddelde score van 7 (op een 10 puntschaal). Bovendien werd in alle negen conferenties een re-integratieplan opgesteld. De ervaren mentale gezondheid en de mate van participatie waren enigszins verbeterd na afloop van de interventie en de meeste acties in de re-integratieplannen waren werkgerelateerd. Zes maanden na de EK-c hadden vijf deelnemende cliënten betaald werk of vrijwilligerswerk. Deze resultaten toonden het potentieel aan van het gebruik van EK-c bij re-integratie in een geselecteerde groep cliënten met een arbeidsbeperking, in het bijzonder voor hoger opgeleiden met een sociaal netwerk.

Hoofdstuk 3 beschrijft de ontwikkeling en toepasbaarheid van de Systematisch Re-integratie gericht Handelen bij multiproblematiek (SRHm) methode. De SRHm methode is afgeleid van de Systematisch Rehabilitatie Gericht handelen (SRH), een in Nederland ontwikkelde methode die wordt gebruikt door professionals in de geestelijke gezondheidszorg, en die gebruik maakt van de belangrijkste principes van het Strength-model, te weten het systematisch opbouwen van een individuele relatie met elke cliënt, met als doel cliënten te ondersteunen in hun behoeften waarbij interventies zijn gebaseerd op de keuzes van de client, hun sociale netwerken te mobiliseren en de focus te leggen op persoonlijke krachten en niet op de beperkingen als gevolg van de ziekte. Doorontwikkeling van SRH naar de SRHm methode betekent dat de arbeidsdeskundige een persoonlijk profiel van de client opstelt met informatie over de huidige situatie, behoeften, ervaringen, sterke punten, capaciteiten en vaardigheden van de cliënt en een inventarisatie van externe hulpbronnen in het sociale netwerk van de client maakt. Op basis van dit profiel ontwikkelen de cliënt en de arbeidsdeskundige samen een participatieplan waarbij doelen worden gesteld en geprioriteerd om de problemen van de cliënt aan te pakken.

De studie naar de toepasbaarheid van SRHm training en methode is uitgevoerd met acht arbeidsdeskundigen. Hierbij is gebruik gemaakt van een voor- en nameting (pre-post design). De groep arbeidsdeskundigen vulden vragenlijsten in voor het begin van de training (baseline) en op drie momenten na afloop van de training: 1. Direct na elke trainingsdag (in totaal 7 keer), 2. Na afloop van de volledige training, en 3. Drie maanden na afloop van de training. Daarnaast organiseerden we direct na de training een semigestructureerde discussiebijeenkomst met de deelnemende arbeidsdeskundigen met als doel meer inzicht te krijgen in hun standpunten. Op basis van het raamwerk van

Bowen onderzochten we vier domeinen van haalbaarheid: aanvaardbaarheid/acceptatie (inclusief tevredenheid), behoefte, implementeerbaarheid en de praktische bruikbaarheid. De meeste deelnemende arbeidsdeskundigen rapporteerden dat ze na de training beter in staat waren om de ontwikkelingsbehoeften, kansen en bedreigingen in de situatie van de client in kaart te brengen. Drie maanden na de training gaven de arbeidsdeskundigen aan dat ze de SRHm methode zouden willen blijven gebruiken. De algemene waardering voor de training was 7,6 (op een schaal van 1 tot 10, range 7-9). De SRHm methode en training bleken met name voor arbeidsdeskundigen die werkzaam zijn bij het UWV WERKbedrijf geschikt om cliënten met multiproblematiek te ondersteunen in het re-integratietraject. Voldoende ondersteuning van het management voor de deelnemende arbeidsdeskundigen werd gezien als een belangrijke voorwaarde voor een succesvolle implementatie van SRHm.

De **hoofdstukken 4-6** beschrijven de bevindingen van het gerandomiseerde onderzoek (Randomized Controlled Trial) naar de effectiviteit van de SRHm methode in het verbeteren van re-integratie in betaald werk en het niveau van functioneren bij cliënten met multiproblematiek. We rekruteerden 45 arbeidsdeskundigen, waarvan er uiteindelijk 40 deelnamen aan het onderzoek. Van deze arbeidsdeskundigen werden 19 toegewezen aan de SRHm interventiegroep en 21 arbeidsdeskundigen in de controlegroep (zij bieden de gebruikelijke dienstverlening aan). De gemiddelde leeftijd van de arbeidsdeskundigen was 50 jaar, 53% was vrouw en 35% werkte in een stedelijke omgeving. De geïnccludeerde arbeidsdeskundigen wierven vervolgens de cliënten voor het onderzoek. De totale steekproef bestond uit 207 cliënten; 97 in de interventiegroep en 110 in de controlegroep. De gemiddelde leeftijd van de cliënten was 35,4 jaar (SD 12,8); 53% was vrouw; 30% had een laag opleidingsniveau; en 34% woonde alleen.

In **Hoofdstuk 4** werd onderzoek gedaan naar de prevalentie (het vóórkomen), het type en de combinaties van multiproblematiek. Multiproblematiek werd gedefinieerd als: “er is sprake van multiproblematiek bij personen wanneer zij gedurende langere tijd twee of meer samenhangende en elkaar mogelijk versterkende problemen ervaren én de betrokkene niet in staat is tot het ontwikkelen en voeren van een adequate regie ten aanzien van beheersing of oplossing van het complex aan problemen, waardoor deelname aan de samenleving en de arbeidsmarkt problematisch is”. De ervaren problemen werden geïnventariseerd met behulp van een zelf-ontwikkelde vragenlijst, waarin de deelnemende cliënten werd gevraagd of ze problemen ervaren op de volgende gebieden: (1) lichamelijke gezondheid, (2) mentale gezondheid, (3) financiële problemen, (4) zorg voor familie of kinderen, (5) te lage of niet passende opleiding, (6) problemen met de Nederlandse taal, (7) contact met politie of justitie, (8) huisvesting, (9) verslaving, en (10) huiselijk geweld. Deze antwoorden werden gekoppeld aan de diagnoses en werkstatus verkregen uit de registerdata van het UWV. Bij 87% van de deelnemers bleek er sprake te zijn van multiproblematiek, waarbij de meeste problemen hadden te maken met lichamelijke gezondheid, geestelijke gezondheid en/of een mismatch in opleiding. Tot wel 25% van de deelnemers ervoeren deze problemen als een ernstige belemmering voor deelname aan de samenleving en het verkrijgen van werk. Aangezien

een groot aantal cliënten niet alleen gezondheidsproblemen ervaren maar ook andere bijkomende problemen is een focus op alleen gezondheidsklachten te beperkt om re-integratie te ondersteunen.

In **hoofdstuk 5** onderzochten we de effectiviteit van de SRHm methode op betaald werk en niveau van functioneren (primaire uitkomstmaten) en ervaren algemene gezondheid, kwaliteit van leven en sociale steun (secundaire uitkomstmaten) multiproblematiek gedurende een follow-up periode van 12 maanden. Veertig arbeidsdeskundigen werden gerekruteerd en toegewezen aan de SRHm interventiegroep of de controlegroep. De arbeidsdeskundigen in de interventiegroep volgden een vijfdaagse training over de SRHm methode; de arbeidsdeskundigen in de controlegroep kregen geen aanvullende training. Alle arbeidsdeskundigen werden gevraagd cliënten te werven voor deelname aan het onderzoek. Tijdens de 12 maanden durende follow-up periode werd geen significante verbetering gevonden voor zowel de primaire als secundaire uitkomstmaten, echter de cliënten in de controlegroep (die ondersteund werden door een arbeidsdeskundige die reguliere dienstverlening gaf) bleken significant vaker betaald werk te hebben na 12 maanden. De afwezigheid van een significant positief effect van de SRHm methode kan meerdere oorzaken hebben. Mogelijk is er door de intensieve begeleiding minder focus op het zoeken van werk (lock-in effect) bij de interventiegroep of is de implementatie van de methode niet volgens protocol gegaan (implementation failure). Ook is het mogelijk dat de theoretische aanname dat de SRHm methode zou kunnen leiden tot een verbeterde re-integratie in betaald werk onjuist (theory failure). Een procesevaluatie kan meer inzicht geven in de oorzaken van de afwezigheid van de verwachte positieve effecten van de SRHm methode. Hoewel we op basis van de resultaten van deze studie geen wijdverspreide implementatie de SRHm methode kunnen aanbevelen, is meer onderzoek naar de implementatie en de effecten van de methode nodig. Aanvullend onderzoek naar een eventuele afname van ervaren problemen en een eventuele effectievere inzet van netwerken is zinvol.

Hoofdstuk 6 beschrijft de procesevaluatie van de SRHm interventie, deze werd naast de effectevaluatie uitgevoerd om vast te stellen welke onderdelen volgens protocol in de praktijk werden geïmplementeerd. Uit de procesevaluatie bleek dat een aantal belangrijke elementen van de methode niet volgens protocol waren uitgevoerd. Bij het vergelijken van de resultaten tussen arbeidsdeskundigen en cliënten in de interventiegroep met betrekking tot geleverde en ontvangen dosis, rapporteerden de cliënten dat er minder activiteiten hadden plaatsgevonden (ontvangen dosis) dan arbeidsdeskundigen rapporteerden (geleverde dosis). Bovendien was de naleving van het protocol in de interventiegroep laag (t.a.v. het opstellen van een persoonlijk profiel en een persoonlijk plan alsmede het betrekken van het sociale netwerk) tot redelijk als het ging om het aantal persoonlijke contacten (>2 persoonlijke contacten met de cliënt). Over het algemeen was de tevredenheid van de arbeidsdeskundigen over de SRHm methode hoog, maar de cliënten in de interventiegroep beoordeelden de methode veel lager dan de arbeidsdeskundigen. Het gebrek aan een positief effect op de primaire uitkomstmaten is mogelijk het gevolg van een niet adequate implementatie van de methode door de

deelnemende arbeidsdeskundigen. Aangezien de interventie niet volgens protocol werd geïmplementeerd, is een theoretische tekortkoming van de SRHm methode als oorzaak van de afwezigheid van positieve effecten echter niet uit te sluiten.

Hoofdstuk 7 presenteert de algemene discussie van dit proefschrift, waarbij de nadruk ligt op de belangrijkste bevindingen, methodologische overwegingen, reflectie op de belangrijkste bevindingen en aanbevelingen voor beleid, praktijk en toekomstig onderzoek. Dit proefschrift biedt inzicht in de complexiteit van problemen waarmee mensen met arbeidsbeperkingen worden geconfronteerd, de hoge prevalentie van multiproblematiek in deze groep en het feit dat deze problemen niet alleen betrekking hebben op de fysieke of mentale gezondheid. De bevindingen in dit proefschrift laten zien dat ook problemen op andere gebieden (o.a. financiën, onderwijs en informele zorg voor familie) het vinden van werk of terugkeer naar werk kunnen belemmeren. De arbeidsdeskundigen waren positief over het gebruik van deze aanpak bij de re-integratie begeleiding van mensen met multiproblematiek, echter de implementatie van de SRHm methode in de dagelijkse praktijk bleek niet eenvoudig. Er werden geen effecten gevonden van de SRHm methode op de onderzochte uitkomstmaten. Uit de procesevaluatie bleek dat bij slechts een klein aantal cliënten de belangrijkste elementen van de methode waren uitgevoerd, wat de afwezigheid van de verwachte positieve effecten mogelijk kan verklaren.

Op basis van dit proefschrift kunnen verschillende aanbevelingen worden gedaan voor beleid, praktijk en toekomstig onderzoek. De meerderheid van de onderzochte cliënten met een arbeidsbeperking bleek te maken te hebben met multiproblematiek op verschillende leefdomen. Omdat al deze problemen re-integratie naar werk kunnen belemmeren, is het belangrijk dat arbeidsdeskundigen niet alleen naar de gezondheidsgerelateerde problemen vragen maar ook andere problemen in kaart brengen. Bovendien is het van belang om niet alleen te kijken naar de beperkingen maar ook naar de sterke punten van de cliënt en diens sociale netwerk, en te identificeren hoe deze sterke punten op een positieve manier kunnen worden ingezet.

Een belangrijke aanbeveling aan het UWV is om de arbeidsdeskundigen trainingen aan te bieden die focussen op belangrijke elementen van een Strength-based benadering zoals het richten op krachten en niet alleen problemen, gebruik maken van netwerken en het aangaan van een samenwerkingsrelatie. Als uitgangspunt voor het re-integratie proces dient gezorgd te worden voor extra consultatietijd voor de arbeidsdeskundigen bij deze doelgroep. Tot slot, gezien de complexiteit en het op elkaar ingrijpen van de problemen van de cliënten is het essentieel om de samenwerking met andere professionals werkzaam in het sociale domein te versterken voor een optimale re-integratiebegeleiding.

Voor toekomstig interventieonderzoek in het werkveld van arbeid en gezondheid is het gebruik van een realistische evaluatiebenadering als studie design wellicht beter uitvoerbaar en passend dan een traditioneel Randomized Controlled Trial design. Bovendien is een follow-up periode langer dan 12 maanden wenselijk om het effect op duurzame re-integratie in betaald werk vast te kunnen stellen.



Dankwoord

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Curriculum vitae

Curriculum vitae



Kor Brongers is geboren op 15 september 1964 in Onstwedde. Nadat hij de middelbare school in Musselkanaal en Stadskanaal had doorlopen, ging hij studeren in Utrecht en Groningen. In Groningen studeerde Kor personeel en arbeid aan de Hanzehogeschool en sociologie aan de Rijksuniversiteit. Hij ging vervolgens werken bij het Arbeidsbureau, als manager bij een re-integratiebureau en vanaf 2000 als Arbeidsdeskundige bij het sociaal fonds

bouwnijverheid, een van de voorlopers van het huidige UWV. In 2010 studeerde hij af in de arbeids- en organisatie psychologie aan de Open Universiteit Heerlen. Een paar jaar na zijn afstuderen kreeg Kor van het Arbeidsdeskundig Kennis Centrum (AKC) de kans om promotie onderzoek te doen binnen het Universitair Medisch Centrum Groningen (UMCG) waarbij het thema werd re-integratie van cliënten met een arbeidsbeperking en multiproblematiek. Kor is steeds blijven werken en werkt nog steeds als arbeidsdeskundige daarnaast werkt hij onder andere mee aan andere lopende onderzoeken op arbeidsdeskundig terrein, zit hij in de programma advies commissie (PAC) van AKC en zit hij in het bestuur van de academische werkplaats noord (AWP).



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