

Original Article

Facilitators and Barriers in the Use of a Checklist by Insurance Physicians during Work Ability Assessments in Depressive Disorder

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Objectives: Depressive disorder (DD) is a complex disease, and the assessment of work ability in patients with DD is also complicated. The checklist depression (CDp) has recently been developed to support such work ability assessments and has been recommended for implementation in insurance medicine, starting with an analysis of the organisational and social contexts. The aim of this study was to identify the potential facilitators and barriers in the use of the CDp by insurance physicians (IPs) during work ability assessments of employees on sick leave due to DD.

Methods: A qualitative research was conducted based on semi-structured interviews. The participants were IPs with at least one year of work experience in performing work ability assessments. The interviews were audiotaped, transcribed and analysed qualitatively.

Results: Ten IPs (7 males, 3 females; mean 53 years) were interviewed. Important facilitators, which emerged for use of the CDp, were an oral introduction for colleagues and staff, support from management, valuing the increased transparency in work ability assessments with using the CDp, having adequate time for assessments as well as modification of the appearance (colour, plasticised form) and content (clarifying aspects of the examples) of the assessment tool. The fear of the loss of autonomy, lack of added value of the CDp, high workload, inadequate instructions and lack of time were mentioned as barriers.

Conclusion: Adequate introduction to the use of CDp and the fear of the loss of autonomy of IPs need special attention in planning its implementation.

Key Words: Checklist, Occupational medicine, Major depressive disorder, Work ability

Introduction

In most European countries, 4% to 10% of the work population stop working due to sickness before they reach pensionable

age [1]. In the Netherlands, the two main causes of work disability are psychological disorders (36%) and musculoskeletal disorders (29%), while cardiovascular diseases account for 6% [2]. Because disabled workers can submit claims for a disability pension due to disease, there is financial pressure on Dutch society; the number of disability pension claims in 2008 was 558,110, and the total costs were close to 12 billion euros [2]. In the Netherlands, whether or not a employee on sick leave for a minimum of 21 months receives a disability pension is determined by a work ability assessment performed by insurance physicians (IP); if the IP's assessment of work ability shows that an employee on sick leave does possess a residual

Received: June 1, 2011, **Revised:** August 2, 2011

Accepted: August 22, 2011, **Available online:** December 5, 2011

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work ability for any job, then the employee do not receive (or only partly receives) disability compensation. IPs work for the Institute for Employees Benefit Schemes (Uitvoeringsinstituut Werknemersverzekeringen, UWV), and there are about one thousand of them [3]. For their assessments, IPs use information from different sources, but in particular, they use the information from patients during the anamnesis [4]. If needed, IPs can perform a physical examination or rely on information from other medical specialists, mental health care specialists and the general practitioner. Based on an overview of this information, the IP then uses the Functional Ability List to reflect on the functional potential of the patient in terms of aspects such as personal functioning, social functioning and dynamic actions.

In order to help IPs in their assessment of work ability, the Dutch Health Council has produced several protocols with regard to some of the most common disorders causing work disability (e.g., lower back pain, coronary heart disease, burn-out and depressive disorders) [5]. These protocols offer widely accepted general evidence-based support for the four main IP tasks of work ability assessment in insurance medicine: (i) an assessment of the social-medical history, (ii) an assessment of the actual functional possibilities, (iii) prognosis, and (iv) assessment of current status and indicated therapy and support [5]. For major depressive disorders (MDD), the focus of the protocol is on gathering information from the available data (e.g., reports from vocational rehabilitation, general practitioner, mental health care) and by interviewing the patient. Next, the IP needs to assess functional possibilities, such as personal and social functioning, and to a lesser extent, prognosis and therapy.

However, as extensive as the protocol for MDD is, there is no valid and useful instrument for the evaluation of work ability in patients with MDD [6]. This lack of a standardised tool results in all the IPs developing their own routines, guided by their education and personal experience in these assessments, and this could lead to substantial differences in the evaluations between assessors [7]. IPs base their judgment mainly on the information supplied by patients, which may be biased, and they are not given enough support on how to perform assessments using the protocols. Work ability assessments therefore differ between IPs, and the quality of the assessments is unknown [8].

To improve the structured communication between doctors and their patients about returning to work, Slebus et al. [9] performed a Delphi study and identified the most important aspects, which need to be considered in the work ability assessments of employees on sick leave due to MDD.

This study resulted in the checklist depression (CDp),

which contains ten aspects thought to be important for evaluating the work possibilities of persons with MDD. These are the abilities to: (i) take notice, (ii) sustain attention, (iii) focus attention, (iv) complete operations, (v) think in a goal-directed manner, (vi) remember, (vii) perform routine operations, (viii) undertake structured work activities, (ix) recall, and (x) perform autonomously (for a full overview, see Appendix 1). Although variability in the final assessments of the work ability of patients was not reduced through the use of the CDp, the patients were determined to be more able to work based on assessments incorporating the CDp compared to assessments without using the CDp [10]. During anamnesis with the patients, the aspects of the CDp can help IPs to retrieve relevant information for their assessment of work ability. In order to explore the necessary conditions for the nationwide implementation of the CDp in insurance medicine, the authors advised that a feasibility study should first be conducted to study its use in practice.

Implementation research is designed to identify what modifications are needed in a protocol and to investigate how these changes might occur [11]. Generally, implementation research consists of five conceptual steps: (i) an analysis of the social and organisational context, (ii) goal setting, (iii) selection of the intervention strategies, (iv) development of an implementation plan for the intervention measures, and (v) implementation of the intervention measures and evaluation of the progress [12,13]. This paper describes step (i) of implementation research on the CDp. Thus, the aim of this study was to analyse the social and organisational context to detect possible barriers or facilitators for those involved in the implementation of the CDp. The research question was: what are the perceived facilitators and barriers in the use of the CDp by IPs in the work ability assessments of sick-listed employees suffering from MDD?

Materials and Methods

The study used qualitative research methodology. Participants were IPs working at UWV for at least one year, having done at least five work ability assessments. The purpose of this low threshold inclusion criterion was to involve a heterogeneous group of IPs so that a wide range of perspectives could be gathered. Semi-structured, face-to-face interviews with open questions were used because a broad perspective of perceptions and opinions of those involved in the use of the CDp was needed. A topic list was formed prior to the interviews to ensure that all topics discussed by the research team were addressed during the interviews. Taking into account the finding of Guest et al. [14] that data saturation in qualitative interviewing on a

broad subject will be achieved in seven to 12 interviews, it was decided to conduct 10 interviews on the assumption that data saturation would occur if more were done. The interviews took place at the workplaces of the interviewees for observation of their own work contexts. Following a variant of the Ottawa model by Logan et al. [15], the topics of the interview were divided into the following three categories: characteristics of the potential adopters (i.e., IPs), characteristics of the work environment, and characteristics of the innovation (i.e., CDp); these categories were operationalised into two, four and three questions, respectively (Appendix 2).

The participants were chosen from the researchers' network. Ten participants were approached, and all agreed to participate. The participants were contacted by the researchers by e-mail and were asked for their cooperation. After they agreed to participate, interviewees received information about the development of the CDp and its implementation, and about the aim of the present study. The interviewees also received a copy of the CDp with the examples provided by Slebus et al. [9] (Appendix 1). Prior to the actual interviews, a test interview with an IP was conducted by the interviewer (SB), and the feedback was incorporated into the final interviews. Before the interviews began, participants were given a standard introduction text, which described the purpose of the interview, its duration and how it would be conducted. The interviewees were then given an opportunity to ask questions. The interviews were audiotaped, and notes were also taken. The interviewer took a facilitatory role during the interviews, actively asking the interviewees for further explanations of their answers when necessary. Each interview took about 30 minutes and ended with a word of thanks. All interviews were conducted in May 2011.

Following every interview, the notes made during the in-

terview were read, and the audio tapes were attentively listened to. The taped interviews were then transcribed, and the transcribed files were analysed using MAXQDA software for qualitative data analysis (VERBI GmbH, Berlin-Marburg-Amöneburg, Germany). The Ottawa model described earlier was used as a basis for the analysis. This led to the three main categories: characteristics of the potential adopters, characteristics of the work environment and characteristics of the innovation. Each of these categories was subdivided into facilitators and barriers. The transcribed interviews were divided into important fragments, and these fragments were coded openly, resulting in a list of codes. The coded fragments were checked for relevance in relation to subcategories, and synonyms were combined. This step resulted in a schematic sorting of the content of the interviews. Finally, the contents of the categories and subcategories were discussed by the research team and linked to the research question.

Results

The study population comprised 10 participants, whose mean age and mean work experience were 53 and 20 years, respectively. The participants worked in the middle and southern regions of the Netherlands. The socio-demographic characteristics of the participants are shown in Table 1. A summary of the code system with the facilitators and barriers mentioned by IPs is presented in Table 2.

Facilitators

With regard to the characteristics of the potential adopters, the participants said that they did not use the scientific literature in their assessments, but would endorse the CDp if it helped them conduct assessments with evidence-based support.

Table 1. Characteristics of the participants

	Number	Mean	Range
Male	7		
Female	3		
Age (years)		53	45-63
Work experience (years)		20	7-29
UWV location: middle region of the Netherlands	6		
UWV location: southern region of the Netherlands	4		
1-2 work ability assessments of depressive clients per week	6		
3-4 work ability assessments of depressive clients per week	4		

UWV: Uitvoeringsinstituut Werknemersverzekeringen.

Table 2. Facilitators and barriers in the use of the checklist depression (CDp) during assessment of work ability in depressive employees on sick leave

Categories	Facilitators	Barriers
Characteristics of potential adopter	Scientific basis for work ability assessments	Lack of time Information overload Fear of the loss of autonomy
Characteristics of work environment	Clearly spoken introduction to staff and colleagues using a case history Support from management Support from colleagues Sufficient time	No support from management Lack of introduction CDp as an obligation High workload
Characteristics of the innovation	Written instructions provided with the CDp Increased transparency in work ability assessments Instrument developed by those in the same profession; CDp on maximum of one A-4 paper Plasticised CDp Coloured CDp CDp in a map Compatibility with existing instruments	Inadequate Instructions for use of the CDp Time consuming instrument Misleading examples of the items in the CDp Overlapping, unclear items Lack of added value

With regard to the work environment, participants stated that it was very important to provide a proper introduction about the CDp. The suggestion was that such introduction could occur through a standard meeting with colleagues led by a member of the staff. In the introduction, brief oral instructions on how to use the CDp were seen as useful because not all the aspects of the checklist were clear to the participants. Some proposed the use of a case example with instructions to help IPs determine how all aspects should be verified and to promote a standardised use of the CDp, resulting in more transparent assessments nationwide. Broad support for the CDp from upper management as well as from IPs was also noted as an important facilitator. Acknowledgement from upper management for the use of the CDp would be needed to perform valid work ability assessments with the CDp. However, in terms of implementation, adoption of the CDp should occur because the usefulness of the list is fully recognised by the professional themselves rather than being forced by upper management. In this way, discussions about the how the CDp should be used led to the identification of factors as being either a facilitator or a barrier. If the CDp could be used as a reminder to check that every important aspect was covered during an assessment, the CDp was seen as a useful tool.

With regard to the innovation, participants said they would use the CDp because it would prevent them from for-

getting important issues to raise during the consultation and would help them to conduct assessments in a more structured and standardised manner that was similar to their colleagues.

In this context, a facilitator for the use of the CDp was the fact that it was developed by several other IPs who belonged to the same profession. In addition, the interviewees pointed out that the appearance of the CDp must stand out and be coloured, and that it should be plasticised so it would last longer. Participants mentioned that the CDp should certainly not be longer than one side of A-4 paper; it needed to be a practical tool, and its content should be visible at a glance. Most of the participants noted that with other protocols, they received several protocol summaries on A-5 paper cards and presented in the form of a protocol map. It was mentioned that the CDp could also be on such a card inserted in the same map. The participants also commented that they would appreciate more written explanation and background about the CDp in a form, which was separate from the CDp itself. Some of the IPs said that this written explanation could be on the back of the checklist and that the explanation could also clarify the differences between the topics on the CDp. Box 1 contains examples of quotes relevant to facilitators.

Barriers

Most of the barriers mentioned in the interviews were the op-

Box 1. Quotes with regard to facilitators

[001]: If you want to use it well, and all IPs need to use it the same way, then you need instructions, that's what I think. Moreover, because it provides some sort of analogy, I find that important. Otherwise it won't be of any use. You have to be clear in what you want and what your goal is.

[003]: If it is supported by the staff, thus broadly supported, I think that's important. That is, saying we're all going to work with it, and that you can find that your colleagues are doing that too. So I think broad support would make me want to work with it.

[009]: For practical reasons, I'm a strong supporter of a nice plasticised thing. My experience with e-mails is that you print it, and then other things pile on top of it and then you lose it. I think it's more convenient to have this kind of things at hand.

Box 2. Quotes with regard to barriers

[006]: The most important reason why I wouldn't use the list is that I don't have the feeling that for any of us this instrument would serve as a complement to what we already do or help us make better reports if we would use it.

[010]: I'm not such a fan of this being some sort of obligation; I think you should see it as an instrument pointing to which aspects I should pay attention to and be flexible with it.

posite of the facilitators, like an inadequate introduction to the CDp or the lack of support from upper management. However, some other barriers emerged from the interviews.

With regard to the potential adopters, IPs stated that they were busy, experienced high workloads and would not use a new instrument if it took up more of their time. Also, some participants commented that they already experienced an overload of new information concerning work ability assessments and were therefore resistant to the use of new instruments. Furthermore, the additional value of the CDp remained unclear to some participants, and this was a barrier to acceptance of the CDp.

With regard to the work environment, as stated above, participants saw the possible obligation to use the CDp as a barrier, especially if they were unable to appreciate its added value. If its use was compulsory in every assessment of depressive clients, participants felt reluctant to use it. Lack of support from upper management, inadequate introduction and high workload were also mentioned as barriers.

With regard to innovation, the participants thought that the case examples for the CDp (Appendix 1) were misleading and that there was no guidance on how to differentiate the various aspects of the CDp. Box 2 contains examples of interviewees' comments with regard to barriers.

Discussion

The aim of this study was to identify the potential facilitators and barriers in the use of the CDp by IPs during work ability assessments of depressive employees on sick leave. Following a qualitative research design, semi-structured interviews of ten IPs were conducted by one interviewer. An oral introduction

with colleagues and staff, support from upper management, the increased transparency in work ability assessments with the use of the CDp, having sufficient time for implementation and modification of appearance (colour, plasticised format) and content (clarifying aspects of the examples) of the CDp emerged as important facilitators for its use. The fear of the loss of autonomy (i.e., independence), lack of added value of the checklist, high workloads, inadequate instructions and lack of time were mentioned as barriers.

With regard to some methodological aspects of this study, firstly, the interviewed IPs had considerable experience in work ability assessments. Interviewees therefore showed a great diversity in their responses, providing a broad view of the facilitators and barriers to the use of the CDp. However, as may be expected from the literature, data saturation was achieved after eight interviews with the last two interviews failing to provide any new information [14]. Secondly, despite our relatively loose requirements for the work experience of the IPs (at least one year), the IPs who were included were all very experienced. In other literature, it has been stated that young or less experienced professionals are more inclined to use guidelines than older and more experienced professionals, so it is probable that such professionals would make more use of the CDp [16], and facilitators and, to a lesser extent, barriers relevant to a less experienced group of IPs may be missing in this study.

The interviewees differed in their attitude towards the CDp. It was notable that some IPs reacted with restraint towards this innovation, while others were open to incorporating such an innovation into their assessments. According to the theory of the diffusion of innovations, the reason for this difference in attitude can be attributed to the difference between early and late adopters; once early adopters use the innovation,

the majority and eventually the late adopters will follow [17]. Taking into account the diversity in attitudes towards the innovation during the interviews, it can be assumed that there was a mix of early and late adopters in this study. In this context, it could be understood why fear of the loss of autonomy played a role for some participants. Late adopters tend to rely on knowledge and experience acquired during their medical education and their years of practice. For them, innovation in their work, even if it is introduced by members of their own profession and is scientifically substantiated, feels like subversion of what they call their autonomy. However, this loss of autonomy can also be understood as a change in behaviour. Our context analysis showed that IP's were especially concerned with this aspect of loss of autonomy; being the experts for work ability assessment in employees on sick leave, IP's wish to keep control of the application of any instrument used their work. A compulsory application from the management was seen as a loss of their professional autonomy, and thus as a barrier to the use of the CDp.

In Dutch insurance medicine, it is not common to perform such a context analysis to prepare for the implementation of a new instrument. The findings of our study are in line with comparable research from other medical disciplines [16,18,19]. Almost all facilitators (scientific basis; adequate introduction; support from upper management, staff and colleagues; having adequate time; written instruction; instrument having been developed by members of own profession; compatibility with existing instruments) and barriers (lack of time; information overload; fear of loss of autonomy; no support from upper management; lack of introduction; high workload; inadequate instructions) were also found in other studies [16,18,19]. In particular, Francke et al. [16] recently performed a systematic meta-review of the factors influencing the implementation of clinical guidelines for professionals. In that study, different target groups were described, such as different kinds of physicians (e.g., radiologists, oncologists and gynaecologists), physiotherapists and nurses. Even though the subjects differed from those in this study, results concerning the work environment and potential adopters were comparable. This confirms that the results found in this study might be generalisable to the medical profession as a whole and could also pave the way for future evidence-based implementation research in Dutch insurance medicine.

From the IP's perspective, and based on this context analysis, an optimal implementation of the CDp in insurance medicine should rely on support from upper management, on having sufficient time to use the CDp, on an appropriate verbal introduction with colleagues and staff, and on an optimal ap-

pearance of the CDp with regard to lay-out. In the next steps of the implementation research, selection of the intervention strategies and the development of an implementation plan should take into account the information retrieved during the context analysis. However, besides IPs, other groups of people within the institutions involved in the work ability assessment of employees on sick leave due to MDD, such as managers or staff members, should also be consulted to obtain information from a broader perspective, guaranteeing an optimal expanded implementation of the CDp.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

Acknowledgments

The authors would like to thank all insurance physicians for their participation. We are also grateful to Stichting Instituut Gak (SIG) for their financial support of this study.

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Appendix 1. The checklist depression (cited from the article of Slebus et al. [9])

Ability to	Examples of ability
Take notice	A truck driver should be able to notice a car accident that happens in front of him.
Sustain attention	A bus driver should be able to remain alert enough to drive in the correct lane even on a long, uninteresting road in the late afternoon.
Focus attention	A teacher should be able to concentrate on the subject of the lesson even when the students are noisy.
Complete operations	A baker should not only be able to put the dough in the oven but also to concentrate on, manage, and finish the whole baking process up to removing the bread from the oven.
Think in a goal-directed manner	An anesthetist working in an operating theatre should first stabilize relevant parameters in the patient before filling in forms or performing other functions with a lower priority.
Remember	A hotel porter should be able to remember where he has put his guests' luggage.
Perform routine operations	A school nurse should be able to vaccinate hundreds of children a day and to do this in the standard and safe way she has learned.
Undertake structured work activities	A bricklayer should be able to lay bricks exactly according to a given wall design.
Recall	A medical doctor must be able to recall acquired knowledge in order to evaluate the patient's outcomes.
Perform autonomously	A general practitioner should be able to make decisions about the management of patients independently.

Appendix 2. Interview

Characteristics of potential adopters

1. How many workability assessments do you perform per week, on average?
2. What sources of information do you use currently in workability assessments of depressive clients?

Characteristics of work environment

3. Do you think that the checklist depression would fit in with the current insurance medicine protocol for workability assessments of depressive clients?
4. What should happen in the organisation (Uitvoeringsinstituut Werknemersverzekeringen), management, staff, colleagues, to optimize the introduction of the checklist depression?
 - b. Do you think it will succeed in this case?
5. Why would you use the checklist depression?
 - b. Do you think it's the same for your colleagues?
6. Why wouldn't you use the checklist depression?
 - b. Do you think it's the same for your colleagues?

Characteristics of innovation

7. Imagine the checklist depression will be introduced as an instrument in insurance medicine. How would you, as an insurance physician on the periphery, like to be notified about it?
8. Imagine the checklist depression will be introduced as an instrument in insurance medicine. Do you want to receive instructions about it?
 - b. If yes, how?
9. How do you think the checklist depression should be presented to you and your colleagues, so that it can be optimally used?
 - b. What do you think about its:
 - a. Appearance (colour, size, form)
 - b. Format (hard copy, digitally, plasticized)
 - c. Content (number of examples, amount of text)
 - d. List of sample questions