



Occupational therapists' views and perceptions of functional capacity evaluations of employees suffering from major depressive disorders

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ABSTRACT

Introduction: Major depressive disorders (MDD) cause work disability and work loss, often resulting in unemployment. Employees with MDD are often referred to occupational therapists (OTs) to assist with functional capacity evaluation (FCE). Functional Capacity Evaluation forms a part of the return-to-work decision making process. This study describes the views and perceptions of occupational therapists regarding the requirements needed to conduct reliable FCEs of employees suffering from MDD.

Methods: This study employed a descriptive, qualitative study design. Data were collected in three phases using open-ended questions, focus groups and member checking groups. Thematic content data analysis was used.

Findings: In total, 78 occupational therapists were recruited and 39 participated, with response rates of (28) 47%, (11) 61% and (9) 82% respectively across the three phases. Nine participants took part in the focus groups and member checking groups. Three themes emerged, namely: (1) occupational therapists' competencies in performing functional capacity evaluations (2) the process of functional capacity evaluation and (3) comprehensive functional capacity evaluation.

Conclusion: The views and perceptions of occupational therapists of performing FCEs is to formulate return-to-work decisions. Occupational therapists should be competent in the use of standardised measurement tools, non-standardised assessment and clinical reasoning.

Key words: Major Depressive Disorder, Functional Capacity Evaluation, occupational therapy, return-to-work, vocational rehabilitation

INTRODUCTION

Major depressive disorder (MDD) is considered the leading cause of disability in the world as measured by years living with a disability (YLD)^{1,2}. Living with a disability implies working with a disability. Unrecognised and untreated MDD leads to high rates of absenteeism and presenteeism, which can cause reduced productivity and strained interpersonal relationships in the workplace as well as financial losses for employers². South Africa experiences an estimated total of R3.6 billion in loss of earnings as a result of MDD². Recent studies by Stander *et al.*² and Welthagen and Els³ have revealed that almost 30% of South African workers have experienced diagnosed depression episodes which significantly reduced their performance and productivity. Recurrent major depressive disorder is associated with prolonged work disability and job loss⁴. Treating depression and performing accurate *functional capacity evaluations* (FCEs) when making return-to-work decisions can enhance treatment outcomes and reduce future financial losses for employers^{4,5}.

Employees with MDD are often referred to occupational therapists to assist with FCEs. Through the process of FCEs, the physical, mental and functional level of work that an employee can perform is established. The results of FCEs determine whether an employee can perform work-related tasks after being diagnosed with an illness such as MDD⁵. Functional capacity evaluations can therefore indicate modifications to the employees' work-station or work place⁶. Occupational therapists can assist employers by determining if employees are temporarily or permanently unable to work by carrying out FCEs, and by recommending appropriate reasonable accommodations aligned with the relevant legislative provisions.

Globally occupational therapists have no clear guidelines or processes for conducting FCEs for employees suffering from MDD. Instead, occupational therapists practising in mental health use a range of standardised measurements^{7,8} to ensure quality in their evaluations and to justify their objective assessment findings. In Canada, most occupational therapists measure global functioning using the Canadian Occupational Performance Measure⁹, although an assessment of motor and process skills would have been more desirable¹⁰. Non-standardised assessments that include interviews and task-based assessments have also been used to evaluate mental health patients¹⁰. The exclusive use of non-standardised assessments however, restricts the evaluation of occupational therapists in mental health.

South African occupational therapists have developed their own unpublished FCE formats for evaluating employees with MDD in their clinical practices. This type of practice has led to a lack of clinical evidence for performance-based occupational therapy assessments in the mental health field¹¹. Aside from testing measurable instruments for assessing mental health, the occupational therapy profession needs to develop assessments that link mental health with the activities of daily living more effectively¹². Anecdotally it appears that the variability of FCEs done in South Africa may be perpetuated by a lack of resources for training and acquisition of appropriate standardised measurement tools. Similar reasons were supplied by Canadian occupational therapists for not adopting more standardised tests in their assessments¹⁰. Without proper training, personal commitment and specific guidelines for FCE's, occupational therapists may struggle to interpret and integrate different standardised measures into their practices.



Major depressive disorders is a risk factor for work disability¹³, especially in South Africa, where poverty¹⁴, stressful work conditions³ and the advanced age of the work-force all contribute to a feeling of hopelessness^{3,15}. The occupational therapist's experience of making return-to-work decisions is influenced by the employee being assessed, by the employers' requirements, and ultimately by the weight of making a decision that may have permanent consequences for the employee¹⁶. In this study the views of occupational therapists regarding FCE for employees suffering from MDD are described, including determining the perceptions of occupational therapists regarding professional competency and test comprehensiveness. It is the intention of the researchers that this study will influence occupational therapy practices towards a standard procedure, thus enhancing the future integrity of occupational therapy as a profession and contributing towards evidence-based practice.

LITERATURE REVIEW

Major depressive disorders are diagnosed symptomatically, taking the nature, quality and duration of symptoms into account¹⁷. Essentially, depressive disorders have two main elements: low mood and anhedonia^{18,19}. Depression leads to occupational imbalances and limitations in activity participation. Depression is recognised when the person's enjoyment of activity and activity patterns is suppressed,²⁰ the consequences of which negatively influence the performance of daily occupations²¹. Furthermore, MDD leads to high rates of absenteeism and presenteeism, reduced work productivity and strained interpersonal relationships in the work place^{2,3,4}. Therefore, there is a definite need for occupational therapists to evaluate and address the occupational dysfunction of employees who struggle with MDD.

South Africa has various laws and policies protecting and promoting the rights of people with a disability in the work-place²². The provision of the *Code of Good Practice: Dismissal (CGP:D)* contained as *Schedule 8* of the Labour Relations Act²³ implies that employers who have employees that suffer from MDD, will need to refer those employees to mental health care practitioners (including occupational therapists) in order to evaluate the extent of such employees' incapacity to work. Although the Labour Relations Act²³ does not specifically refer to disability, but rather incapacity, it encourages fair labour practices and non-discrimination in the work place.

The Employment Equity Act²⁴ stipulates that if an employee had been ill or been injured and is unable to perform the job, the employer may request the employee to complete a functional determination of disability. Appropriate tests should then be used to determine if the employee can safely perform the job and to identify the reasonable accommodations required for the employee to perform his/her work²⁴. Occupational therapists are probably the most relevant and experienced⁸ health care practitioners to assist the employer in fulfilling the provisions of both the Labour Relations Act²³ and the Employment Equity Act²⁴ by conducting FCEs.

FCEs are equated with both the objective and subjective quantification of work disability²⁵. Furthermore, occupational therapists should select and conduct work-related assessments that demonstrate best practice. Occupational therapists also need to identify assessment tools that are considered excellent²² in terms of reliability^{26,27}, validity^{26,27}, safety^{26,27}, usefulness (utility)²⁷, practicality^{26,27}, sensitivity²⁸ and objectivity²⁸. Practice guidelines for conducting FCEs comment on the need for accuracy, comprehensiveness, objectivity, consistency, relevance, reproducibility, clinical utility/usefulness, generalisability, ecological and clinical validity, flexibility and standardised techniques and protocols²⁶. Occupational therapists have long been proponents of functionally orientated assessments of capacity for work⁸.

Multiple methods, including standardised and non-standardised methods, are all used for triangulation and comparison of information²¹. The evaluation should cover the work capacity of the worker in relation to a specific job or accepted occupational standard²⁹.

Occupational therapists work with psychiatrists and psychologists, amongst others, in addressing those issues that affect the work capacity of employees suffering from MDD³⁰. As part of a treatment team, they play a key role in facilitating return to work of employees with MDD. Although returning to work may assist with the employee's recovery³¹, advanced age and long periods of depression may eventually result in permanent disability^{32,33}.

RESEARCH METHODOLOGY

Study Design

A qualitative descriptive study design was employed that allowed the researchers to provide a comprehensive deeper meaning of occupational therapists' views and perceptions about FCEs³⁴. Data were collected in three consecutive phases as described below:

Study Population

Occupational therapists registered with the Health Professions Council of South Africa (HPCSA) were recruited for this study. The study was conducted in three phases. Participants for Phase I were recruited from a database of occupational therapy graduates who completed the Postgraduate Diploma in Vocational Rehabilitation (DVR) at the University of Pretoria (UP), this being the only South African university offering this type of qualification. Sixty-nine graduates completed this biannual programme between 1998 and 2006.

Participants for Phase II and Phase III included occupational therapists who had more than ten years' clinical experience, had obtained postgraduate qualifications in the field of occupational therapy and who worked in the field of vocational rehabilitation (VR) and/or mental health (MH) at the time of the study.

Ethical clearance and considerations

Ethical approval was obtained from the Health Sciences Research Ethics Committee (Ethical clearance number: S34/2007) at the University of Pretoria where the study was conducted.

Permission was obtained from the Head of the Department of Occupational Therapy, University of Pretoria, to access the database of the previous vocational rehabilitation graduates for Phase I.

Each participant received an information letter to participate in the research, and written consent was obtained prior to his or her involvement in the study during each of the phases. All the copies of the informed consent forms were securely and confidentially kept.

Sampling strategy

Non-random, purposive sampling^{35,36} was used. Researchers strategically identified and selected knowledgeable, expert participants in all the phases. Participants had to articulate and explain their views about and their perceptions of FCE to the researchers. The sample of convenience³⁶ was used during the focus group interview in Phase II because the researchers selected occupational therapists practicing in Gauteng since they were readily available for the focus group.

Data collection procedure

Data were collected in three consecutive phases:

Phase I

A questionnaire consisting of descriptive, open-ended questions enquiring about the occupational therapists' views and perceptions of the FCE process was posted to 60 occupational therapists in return stamped envelopes. Additionally, e-mails were sent to the same recipients as reminders.

Descriptive open-ended questions were used to encourage participants to write about their individual situations^{34,36} in their day to day clinical practice. See *Box 1* on page 11 for the open-ended questions in Phase I.

Box 1: Open-ended questions for Phase I

What is your general understanding of functional capacity evaluation as it relates to major depressive disorder (MDD)?
When will you consider an employee with MDD to be incapable of working?
What formal and informal methods of evaluation do you use to evaluate the functional capacity of employees with MDD?
What are the reasons for using these methods or tools for employees with MDD? Please elaborate on the areas where you feel occupational therapists have difficulties in the determination of functional capacity.
What would you advise other occupational therapists to be aware of or take into consideration when assessing employees with MDD?

Table 1: Participants response rate

Phases	OT's recruited	Occupational therapy participants				Response rate	Rating
		VR**	MH***	VR** & MH***	Total		
Phase one Descriptive open-ended questionnaire	60	19	0	9	28	46.6%	Fair
Phase two Focus Group	18*	5*	2*	4*	11*	61.1%	Good
Phase three Member Checking	11*	4*	2*	3*	9*	81.8%	Good
Total	78	24	2	13	39	50%	Good

*same participants
** VR – vocational rehabilitation
***MH – Mental Health

Phase II

Two focus group interviews were conducted with 11 occupational therapists who had more than ten years' clinical experience. The focus group interview was semi-structured^{35,36}, requiring the participants to answer a set of pre-determined questions³⁵. The focus group interview guide was developed from the results of Phase I that needed further discussion, elaboration and clarification. The questions for the focus group were scrutinised by three senior lecturers (experts in qualitative studies) before they were used. See Box 2¹⁵ below for the focus group interview guide in Phase II. Open-ended questions encouraged participants' reflection on their day to day clinical practices while doing FCEs. Data saturation was reached after two focus group interviews.

Phase III

Member checking was done in Phase III where the results of the data obtained in the focus groups (Phase II) were shown and discussed with nine of the eleven participants from Phase II who were able to attend. This assisted with the elaboration and confirmation of the findings from Phase II.

Data analysis

In Phase I, the data were analysed using content analysis³⁷ in which the views and perceptions of occupational therapists were grouped

Box 2: Focus group interview guide¹⁵

Work capacity: If you think about the role of the occupational therapist in determining work capacity what comes to mind?
Work incapacity: Which factors will you take into consideration to declare employees as unable to work?
Malingering: Do you sometimes find that employees suffering from a major depressive disorder pretend that they are ill in order to avoid returning to work?
Personality disorders: To what extent do you think an additional diagnosis will influence an employee's capacity and ability to-return-to-work?
Practices of occupational therapists: What do you perceive or view as a good occupational therapy practice in determining work capacity with employees suffering from a major depressive disorder?
Is it possible to give some specific criteria for a good occupational therapy practice?
Steps to determine work capacity: Occupational therapists use different steps to determine work capacity with employees suffering from major depressive disorder. How will you describe the steps that you think a competent occupational therapist should follow to perform a quality type of functional.

according to themes and categories and their frequencies were counted. In Phase II, focus group transcriptions were compiled verbatim. Thematic analysis^{37,38} to compare and contrast similarities across the data was used and themes were formulated. The researchers and an external auditor independently analysed the data. On completion of both analyses, themes were renamed and discussed in order to reach agreement between the coders. All the themes and sub-themes were recorded for confirmation during member checking in Phase III.

Measures to ensure trustworthiness

The researchers ensured trustworthiness by constantly examining aspects of truth-value, rigour, integrity, applicability, consistency and neutrality in the research study³⁵. The researchers ensured the application of various criterion strategies to ensure trustworthiness of the findings as suggested by Lincoln and Guba cited by Polit and Beck³⁴. The researchers used member checking, on-going supervisor critique and peer examination to validate the findings. During member checking, the participants suggested amendments and clarifications of terms to the researchers. Peer examination was used with an external auditor to scrutinise data and confirm categories and themes and to view the entire project, including validity checks, to ensure the credibility of the final account³⁴.

FINDINGS

Participants

The sample consisted of 39 participants in total, seven males and 32 females (Table 1 above). The ages ranged between 26 and 60 years with a median age of 36 years. Most of the participants (60%) worked in vocational rehabilitation settings. Twenty-seven percent (27%) worked in a combined vocational rehabilitation and mental health setting and 13% in mental health settings only.

Sixty questionnaires (Phase I) were distributed as e-mails and posted to the participants. A response rate of 46.6% was obtained³⁵. The response rate improved in Phase II and III to above 50%.

Themes

The themes that emerged from the three phases of the study were the views and perceptions of occupational therapists' in determining FCEs of employees suffering from MDD. Three themes emerged as (1) occupational therapists' competencies in performing functional capacity evaluations; (2) the process of functional capacity evaluation itself, and (3) comprehensiveness of functional capacity evaluations.

Theme 1: Occupational therapists' competencies in performing functional capacity evaluations

Functional capacity evaluations should be performed by qualified occupational therapists who regularly perform FCEs within their scope

of practice. Occupational therapists' competencies were evinced in three categories, viz. (1) knowledge, (2) experience and (3) skills.

Occupational therapists' knowledge included knowledge of pathology (diagnostic and prognostic factors), guiding of occupational therapy theories, the occupational therapy process, the assessment process, legislation, the role of human resource practitioners, the economic climate and finally knowledge of the world of work. Two of the participants asserted that knowledge of MDD was essential:

...if you [occupational therapist] don't have an idea of the depressed client [employees]... you [therapist] will miss the point.... (Participant 4)

...the basic knowledge of the world of work is also valuable... Legislation, the world's economic climate, the role of human resource practitioners, travelling methods to work...prevocational skills needed for MDD employees to return to work.... (Participant 6)

The experience of the occupational therapist was found to be valuable. Participants viewed both clinical experience and rehabilitation experience as important;

...it is valuable to have worked with MDD clients (employees) prior to doing FCEs... (Participant 7)

During member checking, occupational therapy skills were considered essential while doing FCEs. Skills in the following areas were considered essential: therapeutic relationships, clinical reasoning, interview, functional capacity evaluation, negotiation and advocacy, communication and conflict resolution, observation, job analysis, assertiveness, diplomatic skills, both administrative and management skills, case management and research skills. Participants viewed FCEs as intensive assessments that required a wide range of competencies, as advised by one of the participants that:

Don't assess and say goodbye...you [the therapist] need to think clearly about the client [employee]...including the qualitative components...I mean the observations.... (Participant 10)

Theme 2: The process of functional capacity evaluation

The FCE process should guide the occupational therapist in a systematic way. Participants indicated that the following aspects related to FCEs were important: (1) the occupational therapist must understand and interpret the reason for the referral clearly; (2) collect information about the employee's work ability, including the employee's job and work history, medical reports and work attendance; (3) obtain collateral information from the employee's family and employer (management and/or colleagues), referral sources or treating team; (4) the process must include an interview, a physical screening/assessment; psychosocial assessment and a work capacity evaluation using standardised measures and non-standardised assessments and a work visit if necessary. Based on the information gathered during this process, the occupational therapist must formulate a return to work decision and recommend whether the employee can return to work or not. One of the participants was of the opinion that:

...the process will be completed by making the decision of returning the clients [employee] to work...whether that is possible or not.... (Participant 3)

While the process of FCE encourages a logical step sequence, occupational therapists need to be flexible as the process is only a guideline. This observation concurs with that of the participant who remarked that:

... there is no exact procedure to follow in the field of functional capacity evaluation, flexibility is important... (Participant 10)

Theme 3: Comprehensive functional capacity evaluation

Occupational therapists considered various factors to be critical for comprehensive FCEs. Important factors were (1) interviewing; (2) tools in the Occupational Therapy Department; (3) assessment of inappropriate illness behaviour, and (4) assessment of the employee's environment. A comprehensive FCE is objective,

comprehensive, defensible and effective. One of the participants advised that:

The assessment must be comprehensive and you [occupational therapist] still have to apply decision making and clinical judgement while using standardised testing [measures].... (Participant 7)

The study participants unanimously agreed that the occupational therapist should have initial contact with the employee during a comprehensive, intensive, semi-structured interview that should last a maximum of two hours. If there is a need for further information, the occupational therapist might need to interview family and/or the employer.

The tools in the Occupational Therapy Department regarding suggested standardised measures by participants included: cognitive standardised measures such as the Rivermead Behavioural Memory Test (RBMT-3)³⁹, the Modular Arrangement of Predetermined Time Standards (MODAPTS)⁴⁰, work samples for reading, writing, comprehension and basic mathematics, the Chessington Occupational Therapy Neurological Assessment Battery (COTNAB)⁴¹, the Valpar Component Work Samples 6 (VCWS 6)⁴², the Therapist's Portable Skills Assessment Laboratory (T/PAL)⁴³, the Ross Test of Higher Cognitive Process⁴⁴ and the Mini-Mental Status Examination (MMSE)⁴⁵.

The tools in the Occupational Therapy Department further included the use of self-report questionnaires such as the Hospital Anxiety and Depression Scale (HADS)⁴⁶, the Beck Depression Inventory (BDI)⁴⁷, quality of life scale⁴⁸, interest checklist⁴⁹, the Patient Health Questionnaire (PHQ-9)^{50,51} and the General Health Questionnaire^{52,53}. The suggested pain questionnaires, although not essential with employees suffering from MDD, were the Visual Analogue Scale^{54,55} and the McGill Pain Questionnaire^{55,56}.

The physical capacity measures, considered relevant by the study participants with employees suffering from MDD, were MODAPTS work samples for climbing stairs and lifting⁴⁰, and VCWS 9⁵⁷ and VCWS 201⁵⁸. The recommended standardised measure to assess participation of employees doing activities of daily living (ADL) is the Assessment of Motor and Process Skills (AMPS)^{59,60}.

The following non-standardised assessments were found to be helpful during the FCEs of employees suffering from MDD: Use of a variety of activities, participation in task-centred occupational therapy groups, and clinical observation and assessment of the employee's environment. One of the participants reported that:

The more the occupational therapist is unsure of what they are doing [the more] they fall into the trap of standardised tools and ignore the observations.... (Participant 3)

Participants viewed the assessment of inappropriate illness behaviour as critical, including familiarity with complex personality disorders. It was further recommended that for the comprehensive assessment to be objective, occupational therapists needed to triangulate their findings, observations and collateral information for consistencies. One of the participants stated that they were to:

...take inconsistencies in effort and suboptimal effort in performance seriously...find out why... (Participant 11)

The need to evaluate the employees in their natural physical environment such as work and/or home in order to assess their interpersonal relationships and other social environmental factors emerged from the observations of the participants. One of the participants added that:

...know the job...know the environment...and interpersonal relationships at work.... (Participant 9)

DISCUSSION

Occupational therapists perceive competency to be valuable while performing FCEs with employees suffering from MDD. Competency includes the occupational therapists' knowledge, experience and skill. Occupational therapists also believe that their co-workers should have wisdom, maturity and expert experience. These traits

will enable analytical thinking, open-mindedness, flexibility and self-regulation during the FCE process. More experienced evaluators have abilities that extend beyond most test batteries⁶¹. These evaluators engage in reflective practice that promotes conscious analysis in the decision-making process, and where existing knowledge is analysed to generate new knowledge and ideas²⁸. Occupational therapy practice is characterised by continuous growth of knowledge through reflective practices that develop and improve clinical skills²⁸. Occupational therapists have a moral responsibility to share their knowledge, augment existing knowledge and to lead in improved quality of service in occupational therapy practices.

Occupational therapists were of the opinion that FCEs include knowing the specific mental functions and/or physical abilities that need to be assessed. They should also be aware of inappropriate illness behaviour that should be taken into cognisance during their interpretation of the assessment results. They further stated that FCEs of employees suffering from MDD required comprehensive psychiatric evaluation, as stated in DSM-5¹⁹, which includes specific mental functions (thought processes, cognition, mood and affect, insight, psychomotor activity and visual perceptual abilities) as well as global mental functions (orientation, sleeping patterns, energy levels and drive and endurance)⁶², all of which are found to be helpful in completing the assessment.

While most occupational therapists (in this study) believed that FCEs should follow a logical process, Roley et al⁶³ warned that the process does not always occur in a sequential step by step fashion. The process is dynamic and allows occupational therapists to practice with an ongoing focus on outcomes while constantly changing their overall plan in order to accommodate changes along the way. The interview, most participants observed, should guide the occupational therapist's choice of appropriate standardised measures and non-standardised assessments to be used with the employee. This agrees with the findings of Rouleau, Dion and Korner-Bitensky¹⁰, who reported that occupational therapists in mental health use interviews, observations and standardised measures for assessment. South African occupational therapists (in this study) believe that the FCEs is a lengthy process that requires an occupational therapist's competency in the use of standardised measurement tools and non-standardised assessments, which enables him or her to clearly observe the employee's capacity and assists in reducing possible risks in a workplace. Occupational therapists should be able to triangulate assessment findings^{21,28} from standardised measurements, non-standardised assessments and application of clinical reasoning in order to formulate objective, defensible and justifiable decisions about the employee's future return-to-work potential. Although non-standardised assessments were found to be effective in this study, the issue about lack of evidence and publications about their validity should be noted.

Occupational therapists need to think continuously (employing both analytical and abstract thinking) and to apply their clinical reasoning, decision making, professional judgement and the guiding occupational therapy conceptual framework throughout the evaluation process in order to make a fair decision about the employee's future work ability. Occupational therapists (in this study) agreed that assessment tools do not evaluate the employee's "physical and social environment"^{42,528}. Occupational therapists (in this study) also advised that some employees should be assessed at their workplace or at home as part of the FCE in order to have an understanding of both the physical and social environmental factors (since a specific criticism of the FCE is its disregard of environmental factors) and which may present a significant barrier to an employee's return to work. Smith and Brintnell²⁹ advised that the evaluation should encompass the work capacity of the employee in regard to his or her specific job or accepted occupational standard.

CONCLUSION

The views and perceptions of occupational therapists in performing FCEs with employees suffering from MDD is to formulate a return-

to-work decision. The return-to-work decision is formulated by the FCE process that involves interviewing, assessment (physical and psychosocial) and work capacity evaluation for employees suffering from MDD. FCE requires using standardised measurement tools, non-standardised assessments and clinical reasoning.

Occupational therapists in South Africa view FCEs as intensive. The process requires numerous assessments ranging from psychometric evaluations to physical evaluations of the work place. Participants were thus of the opinion that only qualified, skilled and experienced occupational therapists should be able to conduct FCEs provided they had both adequate facilities and knowledge of the illness. Furthermore, the researchers hoped that this study might assist in enhancing the future integrity of occupational therapy as a profession in conducting FCEs.

LIMITATIONS

The views and perceptions of other health professionals and occupational therapists in other provinces were not explored despite their valuable contribution to FCEs.

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