UNIVERSITY OF KWAZULU-NATAL
COLLEGE OF HEALTH SCIENCES
DISCIPLINE IN OCCUPATIONAL THERAPY

THE ROLE OF THE OCCUPATIONAL THERAPIST IN CASE MANAGEMENT IN SOUTH AFRICA

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Submitted in fulfilment of the requirements for the degree of Masters in Occupational Therapy in the School of Health Sciences, University of KwaZulu-Natal for a Masters by Research Thesis

Ethical Clearance Number: HSS/0134/016M

Date: 12 January 2017

DECLARATION

I, Ms. Kreshnee Govender, declare as follows:

1. That the work described in this thesis has not been submitted to UKZN or other tertiary institution for purposes of obtaining an academic qualification, whether by myself or any other party.
2. That my contributions to the project was as follows:
   The contents of the thesis represents my own work which included identification of a topic relevant to my field of work, compilation of a proposal and a data collection tool, implementation of data collection, data analysis and compilation of the research thesis.
3. That the contributions of others to the project were as follows:
   Guidance from the supervisors at all stages of the degree programme and assistance by a Statistician from the Department of Biostatistics at the University of KwaZulu-Natal for statistical analysis of the data.

Signed

19 December 2016

Date

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the following people:

- All the occupational therapists that participated in the pilot study and that provided invaluable feedback on the questionnaire.
- All the respondents that participated in the study.

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TERM CLARIFICATION

Road Accident Fund (RAF)

The road accident fund provides appropriate cover to all road users within the borders of South Africa; in the event of injury as a result of motor vehicle accidents. This includes rehabilitation and compensation of the persons injured (Road Accident Fund, 2015).

Worker's Compensation Fund

The Worker's Compensation Fund is a special fund provided by the South African Government to provide compensation for employees that have sustained occupational injuries or diseases at work (Compensation for Occupational Injuries and Diseases Act, 1993).

ACRONYMS

WFOT	World Federation of Occupational Therapy
CMSA	Case Management Society of America
CMASA	Case Manager Association of South Africa
CMSUK	Case Manager Society of the United Kingdom
TAG	Technical Assistance Guidelines on the Employment of People with Disabilities

ABSTRACT

Case Management has evolved as an important strategy in managing healthcare to ensure quality and cost effectiveness. Various health professionals utilise case management in numerous practice settings and the researcher has been observed that occupational therapists have adopted this approach in managing disability and incapacity in the workplace when illness or injury impacts on work ability and retention of the employee. The occupational therapist as case manager has been documented in international literature however the role of the occupational therapist in South Africa is not defined and their contributions to the field is not well recognised. The aim of the study was to identify the occupational therapists' role and scope of practice in case management in South Africa.

A quantitative research method for a descriptive study was selected to establish associations between variables and to draw conclusions based on the data collected. This entailed compilation of a questionnaire as a data collection tool that was informed by literature on case management. A pilot study preceded data collection. Purposive sampling was used and the questionnaire was distributed electronically using Surveymonkey to a targeted group of 180 occupational therapists working in private practice, health consulting, for RAF and Workmen's Compensation given the field of work and their experience in managing individuals with long term medical conditions and incapacity due to ill-health/injury. The data collected was exported to excel for analysis using the mean and a bivariate study to present the non-random associations between two categorical variables. Data from open ended questions were categorised into subthemes and themes using manual coding and was presented thematically.

Results of the study revealed that occupational therapists are involved in case manager functions and the extent and intensity of involvement was in relation to the practice area. The findings suggest that occupational therapists in South Africa have adopted case management as an operational component of disability management and as an element of vocational rehabilitation. The results further indicate the standards applied in case management, the models used, the skill base and knowledge relevant to case management and a description of the challenges and effectiveness of case management as experienced by occupational therapists. These findings highlight the need for occupational therapists to expand their knowledge and to promote their skills in the field to enable appropriate and timely uptake of the service. Moreover these results indicate areas for further research on academic preparation relative to the field, evidence to validate the effectiveness and standards of practice to strengthen the occupational therapist as a case manager.

CHAPTER 1

1.1. Introduction

Occupational therapists are health professionals who are trained in the assessment and remediation of human functioning, which includes occupational performance following disturbance or disruption due to disabling conditions. These health professionals have a "broad education in medical, social behavioural, psychological, psychosocial and occupational sciences" (WFOT, 2010). Occupational therapists are thus multi-skilled with regard to assessment and treatment, and focus on the whole person with the aim of improving their ability to perform activities of daily living such as self care, community survival and work thereby aiding in restoring a meaningful and purposeful life.

In South Africa the scope of the occupational therapist in managing disability in the workplace has evolved since the changes in the Labour Relations Act in 1996 (Byrne, 2005). The researcher has observed that occupational therapists are also fulfilling the role as assessors and disability consultants for health risk managers and insurers, where one of the key functions is to manage sick absenteeism, incapacity and disability utilising case management. In this context the researcher's job description as Disability Consultant within a health consulting company reflects case management as a key performance area which entails the assessment and management of disability claims or extended periods of sick absence when an employee is incapable of returning to work or fulfilling the requirements of his/her occupation due to illness or injury.

The Case Management Society of America (CMSA, 2010) defines case management as "a collaborative process of assessment, planning, facilitation and advocacy for options and services to meet an individual's health needs through communication and available resources to promote quality cost-effective outcomes". Similarly case management is being used by health risk managers, brokers and insurers to reduce the costs associated with temporary disability and extended period of incapacity. This service is related to disability management, vocational rehabilitation as well as pre and post return to work support which links to the role of the occupational therapist in working with people and communities to enhance their ability to engage in the occupations, or by modifying the occupation or the environment to better support their occupational engagement (WFOT, 2010).

A number of health professionals fulfil the role of a case manager albeit this can be seen as a specialised role with a specialised skill set. In South Africa case managers work predominantly in private hospitals, the insurance sector to manage the clients' stated benefits, for Worker's Compensation Fund as well as the Road Accident Fund (RAF). In both hospital settings as well as the Worker's Compensation Fund the case manager is usually a professional nurse while within the insurance and health consulting sector the researcher has observed that health professionals such as physiotherapists, occupational therapists

and nurses are employed to fulfil a role in disability claims management. This is because case management is applied as an early intervention approach to facilitate work re-entry, optimisation of treatment and rehabilitation; and the coordination and referral to service providers. Case management is in fact used in varied settings by organisations, individual employers and employment services in the public and private sector and by insurers, defendant lawyers and personal injury lawyers for different reasons such as reduction of claims for compensation, a service that may be provided by the insurer; and the promotion of work re-entry following a period of incapacity (McAnaney, 2003).

Occupational therapists as case managers has been documented in international literature with Dufresne (1991) stating that "as case manager, the occupational therapist capitalizes on skills in functional assessment, task analysis, intervention planning, implementation, and monitoring with a working knowledge of professional and support services to provide the client, the family, and the caregiver with the coordination of most appropriate services". Notwithstanding this, the role of the occupational therapist and the unique contributions to case management in South Africa has not been documented in South African literature. Furthermore there is limited information as to whether or what case management approaches or models are used by occupational therapists and if there is a standard of practice in case management that has been accepted and adopted.

1.2. Problem statement and research question

The Case Management Society of America acknowledges that case managers are healthcare professionals such as Registered Nurses, Social Workers and Physical Therapists who provide services that assist individuals to cope efficiently with their medical conditions to achieve a better quality of life (CMSA, 2010). In this context it is pertinent to note that a Case Manager is identified "by their role and function and not by their position or job title" (Case Management Society of Australia and New Zealand, 2016). The researcher observed that case management is becoming a common intervention/practice implemented by occupational therapists in the management of long term incapacity and disability in the workplace. A need for this service is likely to increase considering the upsurge in disability claims, incapacity and absenteeism in South Africa i.e. Liberty Life Insurance advised that only 25 out of every 10 000 people who are disabled are rehabilitated and return to work (Liberty Life, 2011). Furthermore sick leave in South Africa has risen continuously over the past decade and Adcorp's (Adcorp is workforce management and business process outsourcing company in South Africa) recent Employment index shows a four-fold increase in sickness related absenteeism since 2007 and that the number of absent workers due to sickness increased by 466% in 2013 compared to 2000 (Adcorp Holdings, 2015). It is also being used by field occupational therapists within RAF to assist motor vehicle accident victims that require long term care after discharge through planning that involves the claimants, their families and service providers as well as the coordination of health care and rehabilitation services (Road Accident Fund, 2010).

Various health professionals fulfil a role as case manager and occupational therapists are utilising case management as an intervention strategy/approach in their domain of practice however training in case management is not known to be overtly included in occupational therapy curricula. It is from this perspective that it became necessary to conduct research to identify the role of the occupational therapist in case management in South Africa. The research question that directed this study is:

What is the role of the South African occupational therapist in case management and does the South African occupational therapists' scope of practice and functions speak to that of a case manager?

1.3. Aim of study

The aim of this research project was to identify the occupational therapists' role and scope of practice in case management in South Africa.

1.4. Objective of study

The objectives of this study were to:

- Identify if there is a match between the services and functions of South African occupational therapists to that of case management functions
- Describe the conceptual models used by occupational therapists in case management
- Identify if standards of practice are used in case management by occupational therapists
- Describe the skill base and knowledge of occupational therapists relevant to case management
- Describe practice difficulties/challenges experienced by occupational therapists in case management
- Identify the effectiveness of case management experienced by occupational therapists

1.5. Literature review

1.5.1. Introduction

The importance of reform through managed healthcare has been recognised by the public and private sectors of South Africa. The South African Department of Health has released the White Paper on National Health Insurance (NHI) which is a system aimed at addressing the current health challenges through a coordinated funding mechanism to ensure equal access to care (South African Department of Health, 2015). The National Health System is predicted to achieve its' mission by including all stakeholders which includes the government sector, NGOs, the private sector and the communities (Department of Health, 1997). In South Africa the government is a main provider of healthcare followed by private health insurance. This demand for effective cost management by all sectors necessitated the

professional management of care with case management evolving as a vital function within healthcare (CMASA, 2013).

Considering the costs of health care and the need for affordable quality services health care providers became aware that managed care would transform the private sector towards cost containment (Rothberg, 2000). Managed healthcare is a holistic approach to the client's health problems which includes case management where the course of treatment is coordinated and monitored through the assistance of a case manager so that quality healthcare is delivered in the most cost-effective way (Kongstved, 2007). Case management is utilised in various settings and for clients with work related injuries it is recognised as a "growing area of managed care" and that an advantage to this type of case management is the occupational therapists capability to assess the job demands and requirements of various occupations and ascertain the match with the client's current abilities/skills and limitations (Savard & Egan, 2003). The role of the occupational therapist in case management was explored further in the literature review.

A review of the literature included the history of case management, the occupational therapist as case manager and case management in vocational rehabilitation and disability management. The literature review related to the models of case management, standards of practice, skills of a case manager and occupational therapy training and education is encompassed within chapter 2.

1.5.2. History of case management

Case Management emerged in the 1800s with the development of the social work profession followed by the need for more coordinated services for persons with disabilities with prominence in psychiatry in the late 1950s in view of the massive deinstitutionalisation movement of mental health care users (Huber, 2000). Case management appeared in the insurance industry in the 1960s and grew within healthcare in the 1970s (Huber, 2000). It emerged as an important intervention strategy to support those that require extensive healthcare services and to bring about the integration and coordination thereof with the goal of achieving planned care outcomes in health services (Linz, McAnally, & Wieck, 1989).

1.5.3. The Occupational Therapist as Case manager

Case management is practiced by various disciplines that utilise discipline specific definitions and models; and misconception can occur when the diversity inherent in case management is not recognised by the different disciplines (Huber, 2000). The individuals' needs will guide the profession of choice to provide case management (Dufrense, 1991).

As per the CMSA's standard of practice for case management the primary functions performed by a case manager are that of assessment, planning, facilitation and advocacy, attained through cooperation and teamwork with other health professionals which correlates to the purview of an occupational

therapist. Case Management centres on the achievement of optimal health and wellness through holistic and client centred care (CMSA, 2010). These principles of case management are in keeping with the practice of occupational therapy which adopts a holistic view and a client centred approach (Fisher, 1996).

Krupa & Clark (1995) support the role of the occupational therapist as case manager as they are involved in the development and implementation of case management services for the severely psychiatrically disabled. This relates to the occupational therapist's understanding of the individual's cognitive, social and psychological functioning and its impact on independence in activities of daily living. The occupational therapist is therefore able to make recommendations for appropriate community services and can coordinate the transition from costly inpatient care to community based support services. Case management by occupational therapists has been illustrated in other areas for e.g. within the rehabilitation field with knowledge and skill in functional assessments, medical conditions, and financial and community support systems the occupational therapist as case manager plans treatment programmes, monitors intervention plans, coordinates the programme and fulfils the role as an intermediary with the financial provider and coordination of care following discharge (Dufrense, 1991). Additionally insurance companies may employ occupational therapists as case managers for the negotiation of services to facilitate the return to work of employees and in doing so may be involved in coordination and recommendation for outpatient services, and liaison with the employer (Byrne, 2005). These functions are associated with those of South African occupational therapists employed by insurance and healthcare consulting companies but needs to be probed further.

Byrne (2005) found that many of the roles and functions of the case manager are similar to the roles and responsibilities of occupational therapists working within the South African insurance industry. These include being a liaison between the employer and the insurer; recommending rehabilitation services, utilising service providers with an early return to work philosophy; advising on task modifications and job accommodations. Additionally occupational therapists are likely to be considered as case managers for employees injured on duty given their knowledge of job analysis, job accommodations and other issues associated with the injured worker (Fisher, 1996).

1.5.4. Case Management in Vocational Rehabilitation and Disability Management

The use of case management in the vocational rehabilitation sphere has been documented and literature supports the role of case management in return to work programmes and the management of long term incapacity (Miller, 2006; Selander & Marnetoft, 2005). Disability management is associated with vocational rehabilitation and according to Shrey (1996) is a process of reducing impact of impairment from injury, illness or disease on competitive participation in the work environment. South African occupational therapists have been involved in vocational rehabilitation for approximately 30 years and

the new labour legislation provided occupational therapists with exciting opportunities in the field (Strasheim & Buys, 1996). Schedule 8 of the Labour Relations Act, Code of Good Practice deals with some of the main aspects of dismissal that may be associated with conduct and capacity and provides the employer with guidelines on the management of employees that are temporarily or permanently incapacitated as a result of ill-health (Labour Relations Act, 1995). In investigating the extent of the incapacity or injury, the employer could enlist the services of an occupational therapist for the purposes of a functional capacity assessment to ascertain the impact of the medical condition or injury; whether related impairment is temporary or permanent in nature and whether reasonable accommodations or alternate work is warranted.

The Technical Assistance Guidelines on the Employment of People with Disabilities (TAG) was published in 2002 with the purpose of complimenting the Code for assistance on the practical implementation of the Employment Equity Act in regards to the employment of people with disabilities in the workplace. In employing and retaining people with disabilities the employer may need to consider reasonable accommodations in order to reduce the impact of the impairment on the person's capacity to fulfil the functions of a job. Occupational therapists that provide disability management services in the workplace are found in various areas of practice such as private practice, insurance companies, health consulting and private companies such as Toyota, Sasol as well as mining companies as observed by the researcher.

In the South African insurance industry the occupational therapist is seen as the intermediary between the insurer and employer in the development and implementation of workplace disability management strategies. The role of the occupational therapist outside the insurance industry is also 'likely to expand into disability management, consultation in employment related areas on vocational rights and rehabilitation, services to assist employers' compliance with labour legislation, services specialising in vocational rehabilitation and case management' (Byrnes, 2003). It is therefore essential to establish the role of the occupational therapist in case management.

Case management can be implemented by a case manager at different stages and according to McAnaney (2003) it is frequently utilised early following injury or illness with the aim of reducing activity limitations and facilitating the return to work of an employee. In this context case management is understood as the proactive management of employees through close liaison with the employee, employer, multidisciplinary team, family members, service providers and the insurer to minimise or manage the impact of the medical condition on their vocational ability, productivity and attendance.

International and South African literature support the use of case management in vocational rehabilitation and as an operational component of disability management. Byrnes (2005) stated that occupational therapists in the South African insurance industry may perform similar functions to that of a case manager whilst in a paper on the Professional Competencies in Vocational Rehabilitation it

has been referred to as a vocational rehabilitation service (Buys, 2015). Positive outcomes with comprehensive services which include a combination of occupational rehabilitation and case management have been documented. This amalgamation of services is deemed attractive to employers and referrers (Russo, 2002). Correspondingly case management has been implemented as a tool of promoting employment of people with moderate to severe disabilities (Kornfeld & Rupp, 2000). Furthermore there is evidence that case management services in the private sector can decrease disability outcomes and costs both for insurance firms and self-insured employers (Miller, 2006).

1.5.5. Summary

Available literature in case management is limited to managed healthcare and medical sciences, with few studies on the use of case management in vocational rehabilitation and disability management; and in occupational therapy practice in South Africa. Furthermore there are limited studies on the models or approaches to case management in South Africa and the effectiveness thereof. International literature illustrates that there is congruence between the philosophy of occupational therapy and case management and that occupational therapy could offer valuable services encompassed in the approach (Maddox, 1989).

International literature reflects the role of the occupational therapist as case manager and highlights areas where occupational therapists perform this role e.g. the rehabilitation field, community based services, mental healthcare services and in the insurance sector. There is however limited South African literature on the role of the occupational therapist in case management; and the contributions currently being made by occupational therapists in the field have not been documented.

1.6. Research methodology

This section describes the research methodology used in the study and includes the setting, population, sampling, data collection method, pilot study, data collection process, data analysis and data management.

1.6.1. Study Design

A quantitative research design was selected for descriptive information to examine the relationships between and amongst variables and to draw conclusions for answering of the research question.

1.6.2. Setting

Occupational therapists working in private practice, in health consulting and the insurance sector were specifically targeted for this study. In health consultancy companies' occupational therapists fulfil a role as an intermediary and or health risk manager involved in disability claims management and

consulting with clients on matters related to disability and incapacity in the workplace. In the group life insurance sector occupational therapists are responsible for assessing and managing disability claims.

1.6.3. Participants

The subjects refer to the group that was used to collect data from for this study. The subjects consisted of occupational therapists employed in the private sector and within RAF.

1.6.4. Sampling and Selection Criteria

The sample for this study included qualified occupational therapists in the private sector. Participants were recruited for this research through the use of emails that were sent out to occupational therapists in private practice and those working for insurance and health consulting companies as well as RAF. The researcher was cognisant that an appropriate sample size is larger than 30 and less than 500 (Sekaran, 2006). A sample size less than 500 was anticipated given that more occupational therapists work within the public sector compared to private and there are limited occupational therapists within the other fields targeted for this study.

The following inclusion criteria were adhered to:

- Qualified occupational therapists working in the private sector
- Occupational therapists specialising in vocational rehabilitation in private sector
- Occupational therapists working in Health Consulting and Insurance sectors
- Occupational therapists involved in medicolegal work and work with RAF

Occupational therapists working in the public sector such as public hospitals, clinics, rehabilitation centres and community health care centres have been excluded from this study as case management within these institutions typically forms part of managed healthcare fulfilled by a Nurse Case Manager (Kgasi, 2010). Occupational therapists in community service or those that are newly qualified were excluded from the study as case management has been identified as a specialised area of practice (Baldwin & Fisher, 2005).

A single-stage sampling procedure was used as the occupational therapists were sampled directly based on the aforementioned inclusion criteria. A nonprobability sampling design was applied i.e. purposive sampling which involves using a specific target group given their knowledge and experience in the field (Sekaran & Bougie, 2010). The participants that met the inclusion criteria were most favourably placed to provide the required information.

1.6.5. Data Collection Tools/Methods

At the time of this research study there was no available data collection tool that could be found for utilisation. As such a questionnaire (appendix 1) was developed by the researcher in order to answer

the research questions and secondly it was informed by literature on case management and case manager functions. For ease and timeous completion by the participants the researcher ensured that the survey questions were clear, simple and self-explanatory. The survey comprised of 31 questions within six sections.

Section one consisted of demographic questions such as years of experience, geographical area, qualifications and domain of practice. Section two relates to the first objective of this study which was to identify if there is a match between the services and functions of South African occupational therapists to that of case management functions. This section comprised of questions regarding interventions and guiding principles documented as case management functions and principles by the Case Management Society of America. Furthermore international literature on case management in vocational rehabilitation (Selander & Marnetoft, 2005) and occupational therapists as case managers had been used in this section of the questionnaire (Krupa & Clark, 1995; Lohman, 1998). The third section included specific questions regarding occupational therapy interventions practiced and the common conditions for which occupational therapists receive referrals which augmented the demographic information for this study. The fourth and fifth section linked to the objectives pertaining to the conceptual models used by occupational therapists, the standards of practice used in case management and the challenges/effectiveness of case management as experienced by the occupational therapist. The last section was on the skills base and knowledge of occupational therapists relevant to case management, and the training and education of occupational therapists related to case management.

The type of scale to measure the items on the instrument was a continuous scale (Likert) with options such as strongly agree to strongly disagree and very infrequently to very frequently. The questionnaire comprised of more closed ended questions i.e. 74% so that respondents could complete the questionnaire timeously in approximately 20 minutes by making quick decisions from the stipulated options. Open ended questions were used in the last section to allow self-expression and to elicit adequate detail and information (Sekaran, 2006).

The data collection tool was designed using an online survey tool viz. Surveymonkey (2009) which is a commercial online product that has been available since 1999. It had been selected for use as the survey can be created quickly with ease and is relatively economical.

1.6.5.1. Reliability

Reliability is the extent to which the measure is free of bias to allow for stability and consistency of the results over time (Sekaran & Bougie, 2010). Reliability of the instrument was considered having designed a questionnaire that was simple to complete with questions that were clear and self-explanatory. In addition the instrument was administered in a standardised method as per a preset procedure using Surveymonkey (Golafshani, 2003). Furthermore it was assumed that the use of an on-

line data collection tool would facilitate better response rates considering the ease in which the questionnaire can be accessed and completed via Surveymonkey.

1.6.5.2. Validity

Validity refers to accuracy of the research and whether the research measures what it was intended to measure (Golafshani, 2003). In order to ensure content validity a thorough review of the literature preceded design of the data collection instrument. The questionnaire was designed in relation to the objectives of the study and with reference to the literature. Moreover the questionnaire was pilot tested to determine content validity.

1.6.6. Pilot Study

The pilot study is known as an elementary stage in the research study and allows the researcher to examine the viability of an approach that will be utilised in a study (Leon, Davis & Kraemer, 2011). Pilot testing is essential in order to ascertain content validity of the survey and to augment the format, scales and questions (Creswell, 2013). The pilot test was used to determine if the questions in the questionnaire were easy to understand, and the time taken to complete the questionnaire. Furthermore the pilot test was used to highlight practical problems that need to be addressed. Hill (1998) recommended 10 to 30 participants for pilot tests in survey research. For the pilot study 10 occupational therapists were approached to complete the questionnaire and based on the feedback relevant amendments were made to the instrument as follows:

- Certain questions/response options were simplified and shortened i.e. questions in section four pertaining to the standards of practice were worded differently and a redundant question on guiding principles under section two was omitted.
- Clarification of the number of responses required for question 1.7
- Omission of any repetitive options/questions
- Change in content of question 4.1.3. to distinguish between service and client problems

1.6.7. Data Collection Process

The questionnaire (appendix 1) was distributed electronically by means of Surveymonkey. Emails (Appendix 2, 4, and 6) were sent out to the participants with an information letter that explained the purpose, aim and rationale of the study, the data collection method, the deadline for completion of the questionnaire and details regarding consent and confidentiality.

For administering the questionnaire a four-phase administration process was adopted. An initial email (appendix 2) with the consent letter (appendix 3) requesting permission to distribute the survey to the

occupational therapists was sent to the HODs of private institutions such as insurance and health consulting companies as well as the Road Accident Fund. The second email (appendix 4) with the information letter (appendix 5) and the link for the survey was distributed to all occupational therapists identified as the subjects. The third email (appendix 6) served as a follow up sent to all members of the sample eight days after the initial email. This email was resent as a reminder a week later to non-respondents to complete the questionnaire with an indication of the due date for completion and submission. The survey was open for one month.

The questionnaire was distributed to a total of 180 occupational therapists that met the aforementioned inclusion criteria excluding those that work for RAF as permission to distribute the survey was provided after the data collection period. Nonetheless the survey was distributed to occupational therapists that are in private practice and that are directly involved in service provision to RAF. The target population comprised of 117 occupational therapists in private practice, 42 in the insurance sector, and 21 in health consulting/brokerage.

1.6.8. Data Analysis

The data obtained through Surveymonkey was exported to excel for analysis with a statistician from the Department of Biostatistics at the University of KwaZulu-Natal. A quantitative analysis was employed by deriving the means for the closed ended response data. The mean is the average of the responses that ranged from one to five on a five point Likert scale. In order to explore the relationship between two variables; to denote if there were non-random associations between two categorical variables and the significance of the associations, a bivariate analysis was conducted using the Fishers exact test. In this study the test was used to compare categorical data where cell sizes are small i.e. less than five. This test is further recommended for sample sizes that are less than 1000 (McDonald, 2009). The results were presented in tables or figures and were interpreted from the statistical test. Conclusions were derived from results and related to the research question.

Thematic analysis was conducted for the open ended questions which entailed coding of the data in order to identify and distinguish primary/main and secondary/sub themes to be able to highlight the most essential concepts and relationships.

In interpreting the data the statistical significance of the results was considered and whether the research question was answered with these results. This included an explanation of the results with reference to literature reviewed as well as logical reasoning and a discussion on the implications of the results for occupational therapy practice and or recommendations for future research.

1.6.9. Data Management

The data collected was kept confidential through a password access retrieval system using Surveymonkey. The researcher ensured confidentiality of the participants' identities throughout the research process and with the reporting of the findings. The participants were assured of anonymity from the outset.

Responses were automatically stored in the Surveymonkey database with the ability for the researcher to download the results and export in the form of excel for analysis. Thus there was no need for manual data entry which eliminated errors in the data collection process (Marra, 2006).

1.7. Ethical considerations

Procedures were followed in line with the Universities policies of research studies. Ethical authorisation (HSS/0134/016M) was obtained from the Humanities & Social Sciences Research Ethics Committee of the University of KwaZulu-Natal.

In addition, permission was obtained from the various institutions where occupational therapists are employed prior to distribution of the online survey.

1.7.1. Informed consent

Informed consent to participate is essential in ethical research. The link for the questionnaire was accompanied by a letter (appendix 3 & 5) that included information on the purpose of the study, aim, and research objectives, how the data will be used, dissemination of the results, and instructions for completion of the questionnaire. In the letter participants were advised that participation is voluntary and that they could withdraw at any time without penalty.

1.7.2. Confidentiality

Confidentiality was assured as the survey could be accessed and completed via the internet. Additionally the identities of the participants were not revealed in the research report. The information obtained was kept confidential and saved on an external hard drive that was password protected.

1.7.3. Anonymity

The information completed by the participants were completely anonymous as they were not required to indicate their names on the questionnaire.

1.7.4. Non-maleficence

In participation in this study there were no risks. Furthermore the questionnaire was compiled in such a manner and was piloted to prevent considerable interruption to the participants.

1.7.5. Beneficence

Participants were informed of the potential benefits of the study to their field of practice and that the results of the study will be made available in the form of a published article.

In summary

Chapter 1 highlights the background and the context of the study. It provided a description of the problem statement and research question and included a literature review which provides a critical overview of the literature. Chapter 2 which includes two manuscripts goes into detail on the results and interpretation of study in the format of journal articles for dissemination of the findings. Chapter 3 is the synthesis of the information from the two manuscripts and indicates how the objectives were addressed in the study further highlighting the importance and significance of the study with recommendations in view of the findings.

CHAPTER 2: PRESENTATION AND INTERPRETATION OF FINDINGS

2.1. Introduction

The findings of this study are described in the format of two scientific journal articles. A review of the literature for the first article focussed on the evolution of occupational therapy practice roles; the role of a case manager and the occupational therapist as case manager. This article identifies if there is a match between the services and functions of South African occupational therapists to that of case management functions. In the second article the literature review addresses the benefits of case management, the skills of a case manager, case management models and standards of practice. This article describes the conceptual models used and identifies if standards of practice are applied in case management by occupational therapists. It further describes the practice difficulties/challenges and identifies the effectiveness of case management experienced by occupational therapists.

2.2. Publication details

Title: Role of the Occupational Therapist in Case Management in South Africa

Authors: Kreshnee Govender

Status: To be submitted

2.3. Journal information

The scientific journal articles were written for publication in the South African Journal of Occupational Therapy (SAJOT). The referencing style used for both articles was the Vancouver system in line with the requirements of the journal. The South African Journal of Occupational Therapy is the official journal for the Occupational Therapy Association of South Africa. It is the leading publication for research on occupational therapy in Africa. The journal publishes and disseminates research articles that contribute to the scientific knowledge of the profession and its outcomes with particular reference to service delivery. It is the only profession specific journal available in South Africa and Africa for dissemination. The journal has an impact factor of 0.11.

2.4. Contribution record

The student conceptualised the papers and was the main author. [redacted] and [redacted] contributed towards the writing of the articles.

2.5. Journal article 1

The Role of the Occupational Therapist in Case Management in South Africa

Kreshnee Govender B Occ Ther (UDW)

[redacted]

[redacted]

ABSTRACT

Introduction: Case Management is fundamental in managed healthcare and has been identified as an established practice delivered by varied health professionals. The aim of the study was to identify the occupational therapists' role and scope of practice in case management in South Africa.

Method: A quantitative study design was selected utilising a questionnaire distributed via Surveymonkey.

Results: Occupational therapists are in fact involved in case manager functions and the extent and intensity of involvement depends on the practice area. More than half the respondents (n=43 i.e. 64%) indicated frequent involvement in case management. The majority of respondents indicated that academic preparation in case management would be beneficial at post-graduate level (64%).

Conclusions: Case management has been implemented by occupational therapists operationally in disability management and as a component of vocational rehabilitation. A high percentage are involved in advocacy for the client, collaboration with the employer in transitioning the client back to work and coordination of services to enable a work reintegration which are recognised as case manager functions with emphasis on occupational performance. Further research is suggested for formalised training in the field to strengthen the occupational therapist as case manager and for the use of a standard in vocational rehabilitation.

Key words: occupational therapy, case management

INTRODUCTION

Case management is a component of managed healthcare and is defined as a "collaborative process which assesses, plans, implements, coordinates, monitors, and evaluates the options and services required to meet an individual's health needs, using communication and available resources to promote quality, cost-effective outcomes"[1].

It originated in the 19th century in the provision of services for people who were disadvantaged followed by coordinated services in the 1970s targeted towards people with mental health problems and deinstitutionalisation[2]. Case management has been used and applied in various settings such as public health, mental health, social services and the insurance industry and in the health care setting is driven

by a nurse case manager[3]. A range of health care professionals are designated as the case manager depending on the setting and the nature of the case. Occupational therapists are showing an interest in case management and are being challenged to adopt this role in the current health care environment [4]. In South Africa case management is being used within different areas of practice such as the insurance sector and health consulting as an approach to manage long term incapacity and disability in the workplace. A need for this service is likely to increase considering the upsurge in disability claims, incapacity and absenteeism in South Africa i.e. Liberty Life Insurance advised that only 25 out of every 10 000 people who are disabled are rehabilitated and return to work[25]. Furthermore sick leave in South Africa has risen continuously over the past decade and sickness related absenteeism has increased four-fold since 2007[24]. It is further being utilised within the Road Accident Fund to aid motor vehicle accident victims that require long term care and coordination of healthcare and rehabilitation services. Additionally it has been recognised as a vocational rehabilitation service[15]. Occupational therapists are employing case management as an intervention strategy/approach in their domain of practice however the role of the occupational therapist South African in case management is not defined and their contributions to the field is not well recognised. The purpose of this study was thus to elucidate the role of the occupational therapist in case management in South Africa.

LITERATURE REVIEW

Evolution of occupational therapy practice roles

The changes in the health system necessitated a shift in occupational therapy practice from focus on the medical model to occupational performance[6]. The practice of occupational therapy has developed over almost eight decades with a move from the early years of practice within institutional settings to other environments inclusive of healthcare facilities, the community, schools and work sites; this in response to the changing needs of people with disabilities[5]. Occupational therapy practice roles are emergent in multiple areas with a client centric approach and emphasis on occupational engagement[6]. Baum & Law[5] stated that like other health professionals occupational therapists are confronted with changing health systems and need to have an understanding of the influencing factors such as legislative frameworks, environmental obstacles, health risk factors and socioeconomic conditions.

In South Africa the Labour Relations Act and the Employment Equity Act that came into effect in 1996 and 1998 respectively presented new opportunities for the occupational therapist in the management of clients with occupational problems related to ill-health or disability[7]. Occupational therapists are well positioned to assess the needs of incapacitated employees or people with disabilities and to prepare them for work in the open labour market or for returning to work and is usually the health professional that will be able to make recommendations for reasonable accommodations in the workplace. These services may relate to disability management that the Technical Assistance Guidelines on the Employment of People with Disabilities (TAG) suggests should continue in the workplace to allow for

early intervention after the onset of a disability utilising "quality case management and rehabilitation services that reflect an organisation's commitment to continued employment of those experiencing functional work limitations"[23].

The role of a case manager

The Case Management Society of America (CMSA)[8] recognises case mangers as skilled professionals that are key contributors in the care coordination team to allow for access to quality healthcare; and aids in the transition of care to the next level. Furthermore in fulfilling their functions case managers are involved in comprehensive assessments to develop a care plan where the planning is done in conjunction with the client, family, specialists, healthcare providers and payer to facilitate maximum response and cost effective outcomes.

Case managers are responsible for collaborating and negotiating with the relevant stakeholders to facilitate follow through with the treatment plan and at the same time ensuring cost effectiveness[1]. A client centric approach is adopted which entails empowering and educating the client which is essential to meet the goals set[8]. Additionally client advocacy has been identified as a vital attribute in the achievement of positive outcomes[4, 8]. In performing these functions case managers may work internally such as in a hospital setting where there is direct contact with the client or externally where they are not necessarily involved in the client care but essentially manage cases by coordinating aspects of the care for an insurance company or employer[9].

The occupational therapist as case managers

International literature reveals that occupational therapists are seeking to define their role in case management amidst changing healthcare environments and in response to the needs of the client which includes access to effective, quality, timely and cost effective services.

Dufrense[10] stated that the American Occupational Therapy Association affirmed that the occupational therapist can in fact perform the role of a case manager and that there will be benefit from the occupational therapist as case manager when disability affects performance in activities of daily living.

Baldwin[11] found that the functions of a case manager and that of an occupational therapist compares favourably following a comparison of the occupational therapists functions to that of a case manager as outlined by the Case Management Society of America Standards of Care for a case manager. The salient features of effective case management include the identification of the client's needs, the provision of appropriate medical treatment that includes mental and physical rehabilitation, the provision of daily living support and the provision of vocational training or re-training[12]. These characteristics are similar to those of an occupational therapy service in that a holistic view is adopted by occupational therapists with emphasis on functional ability instead of treating illness thus promoting independence and facilitating community integration.

There is limited South African literature on the role of the occupational therapist in case management. Byrnes[13] stated that occupational therapists in the South African insurance industry may perform similar functions to that of a case manager whilst in a paper on the Professional Competencies in Vocational Rehabilitation Buys[14] referred to case management as a vocational rehabilitation service. It thus appears that in South Africa occupational therapists are involved in case management either internally for e.g. in the provision of a vocational rehabilitation service and externally within the insurance industry. Notwithstanding given the scant literature in the South African context it is necessary to identify the occupational therapists' role and scope in case management and to acknowledge the contributions made to the field.

METHODOLOGY

Study method

A questionnaire was used as the data collection method to gather descriptive information to answer the research question i.e. what is the role of the South African occupational therapist in case management and does the South African occupational therapists' scope of practice and functions speak to that of a case manager?

A questionnaire informed by literature was developed in order to answer the research question.

Ethical clearance

Ethical clearance (HSS/0134/016M) was obtained from the Humanities & Social Sciences Research Ethics Committee of the University of KwaZulu-Natal.

Data Collection

Given the researcher's knowledge of the use of case management by occupational therapists in private practice, in health consulting, the Road Accident Fund (RAF) and the insurance sector, these areas were targeted within this study. As such purposive sampling was applied which involves using a specific target group given their knowledge and experience in the field[15]. The participants who met the inclusion criteria i.e. qualified occupational therapists working in the private sector, those specialising in vocational rehabilitation in the private sector; working in Health Consulting and insurance sectors; occupational therapists involved in medicolegal work and work with RAF were considered to be most favourably placed by the researcher to provide the required information.

The questionnaire was distributed to a total of 180 occupational therapists that met the inclusion criteria excluding those that work for the RAF as permission to distribute the survey was provided after the data collection period. Notwithstanding this the survey was distributed to occupational therapists that are in private practice and that are directly involved in service provision to RAF. The target population comprised of 117 occupational therapists in private practice, 42 in insurance, and 21 in health

consulting/broker. Occupational therapists working in the public sector have been excluded from this study as case management within these institutions typically forms part of managed health care fulfilled by a Nurse Case Manager[16]. Occupational therapists in community service or those that have just qualified were excluded from the study as case management has been identified as a specialised area of practice[11]. The data was collected via Surveymonkey. For the closed ended questions the Likert Scale was used with weights attached to each answer choice enabling Surveymonkey to calculate the mean for each response for an analysis of the results section.

A pilot study was conducted by 10 occupational therapists to determine content validity, and the time taken to complete the questionnaire. Refinement of the questionnaire followed receipt of feedback.

Data analysis

The data was exported from Surveymonkey to excel for analysis with a statistician from the Department of Biostatistics at the University of KwaZulu-Natal. A quantitative analysis was employed by deriving the means for the closed ended response data. The mean is the average of the responses that ranged from one to five on a five point Likert scale. In order to explore the relationship between two variables; to denote if there were non-random associations between two categorical variables and the significance of the associations a bivariate analysis was conducted using the Fishers Exact test. In this study the test was used to compare categorical data where cell sizes are small i.e. less than five. This test is further recommended for sample sizes that are less than 1000[17].

Thematic analysis was conducted for the open ended questions which entailed coding of the data in order to identify and distinguish primary and secondary themes.

RESULTS

Response rate

Of the total population of 180 there were 77 respondents indicative of a 42% response rate. Acceptable response rates vary depending on how the survey was administered. On average a 30% response rate for surveys administered online is considered to be acceptable[18]. A sampling distribution of the mean that is very close to a normal distribution will generally result with a sample size of 30 or more [19].

Demographic profile

Most respondents (71%) had 10 or more years of experience. A small percentage of respondents (5.3%) had 1-3 years of experience as occupational therapists suggesting that the sample comprised of more experienced occupational therapists.

Of the 76 occupational therapists, 47% have no qualifications after undergraduate training, 17% have a Diploma in Vocational Rehabilitation, whilst 14% have Masters' Degrees. Certification in functional capacity evaluation courses such as Workwell Systems and Ergoscience was indicated by 5%. A higher

percentage (62%) of the respondents belongs to regulatory bodies such as OTASA (Occupational Therapy Association of South Africa). Only 1% belongs to the Case Manager Association of South Africa. Most of the respondents practice occupational therapy in the Gauteng region (49%) followed by KwaZulu-Natal (20%) and Western Cape (17%). These findings on the geographical distribution correlates to the area of practice as the majority of the respondents are based within the insurance sector (62%) that is predominantly located in the Gauteng region. A higher percentage of respondents were also from private practice (55%). In responding to the question regarding the area of practice respondents could select more than one practice area. RAF constitutes 20% of the practice areas. These occupational therapists may not be employed by the Fund but provide services directly to RAF. Health consulting ranked fourth (15%) in terms of top areas of practice.

Of the respondents 9% work in hospitals/rehabilitation hospitals. Majority of these respondents (83%) also work in other areas i.e. private practice, insurance and Workmen's Compensation. Only 1% indicated hospital as an exclusive area of work.

As depicted in figure 1 below disability Management ranked the highest (65%) as a domain of practice which is expected considering that 62% of the respondents are from the insurance sector. This is followed by vocational rehabilitation (41%) which links to the percentage of occupational therapists that work in private practice. Of the 43 occupational therapists in private practice 60% indicated vocational rehabilitation as a domain of practice which suggests that this is a prevalent field amongst this sample group within the private practice sphere. There is a similar distribution of the domains physical health (38%), medico-legal work (38%) and absenteeism and incapacity Management (37%).

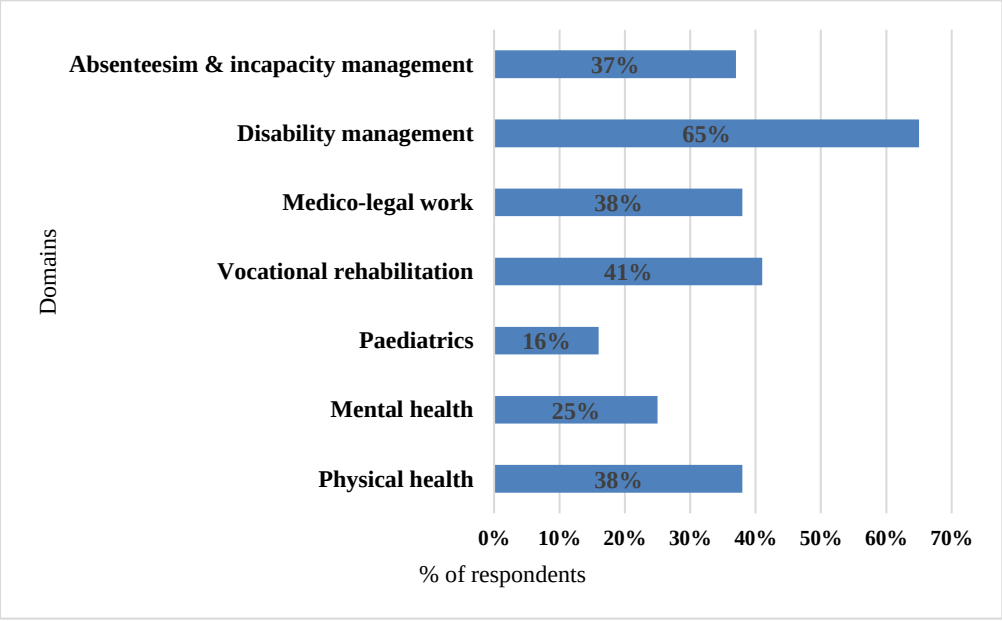

Figure 1: Domains of practice of respondents

Involvement in Case Manager Functions

Results indicate that occupational therapists are intervening with various functions that have been documented as case manager role functions as per the Case Management Society of America's Standard of Practice for Case Management[8].

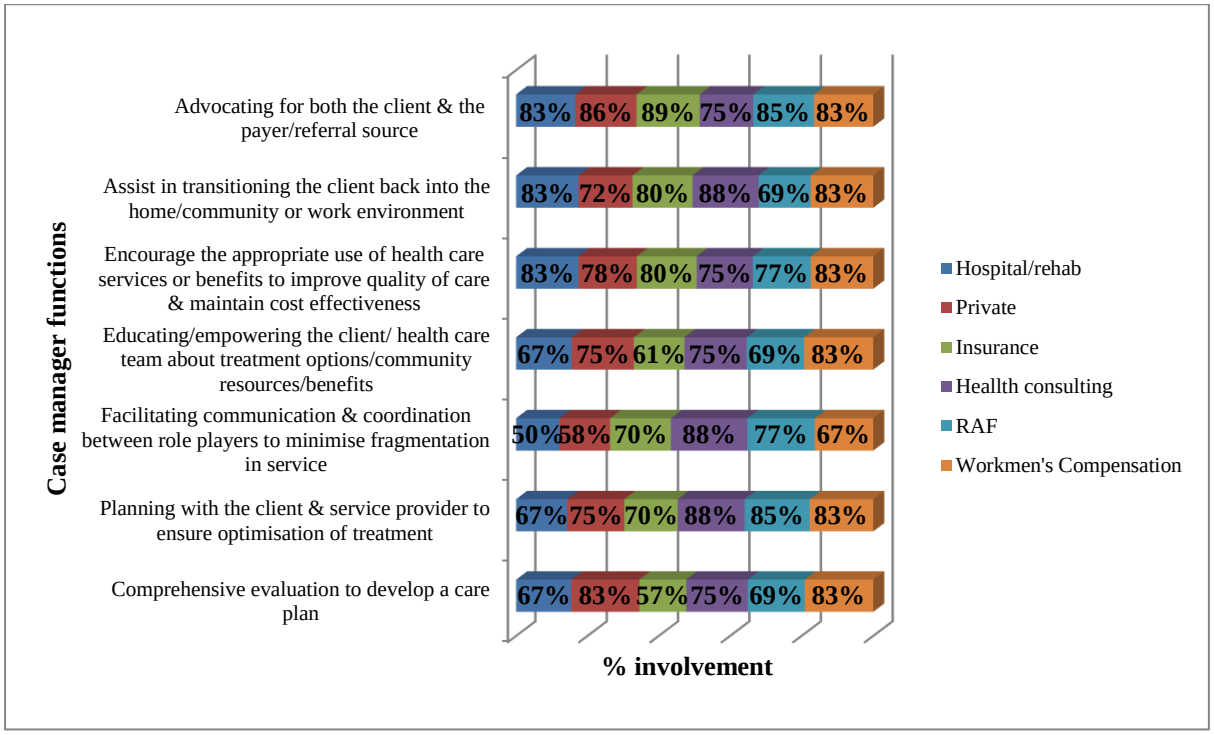

Figure 2: Percentage of involvement in case manager functions per area of practice

There is consensus that occupational therapists are involved in advocating for both the client & the payer/referral source to facilitate positive outcomes that was ranked the highest (85%; mean =4.21). This is typically an established skill of occupational therapists in addressing the clients' needs holistically through collaborative communication, client support and empowerment to enable an improvement in their functional levels. As shown in figure 2 most of these respondents are from the insurance sector (89%) which suggests that this function is directly associated with disability claims management in the field. More specifically respondents indicated frequent involvement in advocating for on-going medical and or rehabilitation interventions (mean=3.70) as shown in table II below which is in keeping with the management of disability claims by an occupational therapist working within group life insurance companies where recommendations are made for rehabilitation and or reskilling/training to aid in a work re-entry[14].

This is followed by encouraging the appropriate use of health care services/benefits to improve quality of care and maintain cost effectiveness (77%; mean=3.79) indicative of an integrated, client centred

approach that correlates to occupational therapy practice. The majority of these respondents are from hospitals (88%) and Workmen's Compensation which relates to managed health care and further illustrates the occupational therapist as a case manager. There is further a level of consensus for involvement in case manager functions such as planning with the client and service provider/referral source to ensure optimisation of treatment (72%; mean=3.76) and assistance in transitioning the client back into the home/community/work environment (71%; mean=3.96). Figure 2 above indicates that the highest number of respondents in relation to the practice area that are involved in planning with the client and service provider or referral source are from health consulting areas of practice and RAF. This is associated with brokerage functions within health consulting and facilitation of access to medical and rehabilitative care within RAF.

Transitioning of a client to the next level of care corresponds strongly to the occupational therapists' capacity in community and work reintegration and it is noteworthy that the highest proportion of respondents that are involved in transition of the client into the community or work environment are from health consulting 88%.

Table I: Comparison of the level of involvement in comprehensive evaluations to develop a care plan per practice area

Areas of work	Mean	Level of significance	p-value
Private practice	4.19	*	<0.001
Workmen's Comp	4.33		0.4
Health consultancy /broker	4.42		0.7
RAF	3.76		0.8
Hospitals	4.2		0.9
Insurance industry	3.59		0.2

* Significant at the 10% level
** Significant at the 5% level

After client selection case management includes an evaluation to develop a care plan[9]. The proportion of respondents that are involved in comprehensive evaluation of the client to develop a care plan is significantly greater ($p \leq 0.00$) in private practice as reflected in table II. Fewer occupational therapists that are involved in this area of intervention are from insurance (mean=3.59). Of the 65 respondents 45% indicated that referrals are made to other occupational therapists for functional capacity evaluation, independent evaluations and vocational rehabilitation most of which are from insurance whilst the minority are from health consulting and RAF. Of the 37 occupational therapists that receive referrals for functional capacity evaluations 91% are from private practice. This suggests that occupational therapists in private practice are more so involved in comprehensive evaluations compared to those in other areas and are particularly receiving referrals for evaluations from insurance, health consultancy and RAF so that a plan of care for the client can be derived. These results reveal that occupational therapists are therefore not only planning and directing therapy programmes but are assuming case manager functions where there is linkage and involvement of the team.

In order to identify the specific areas of intervention related to case management participants had to indicate the frequency of involvement in interventions that are relative to case manager functions. After advocating for on-going medical and or rehabilitation interventions liaison with the employer to aid in the employee's transition back to work (mean =3.66) and coordination & accessing services to assist in the management of the clients' reintegration in the work environment (mean =3.50) reflected as common role functions. Of the 67 respondents 56% are involved in work site visits to assess the requirements and needs of the employee and employer. Occupational therapists are rarely (mean=2.18) involved in the coordination of complicated treatment regimens in rehabilitation settings which is expected as in South Africa this function is commonly performed by a nurse case manager within this area of practice.

Table II: Frequency of involvement in case manager role functions per area of practice

Area of practice	**Private**			**Insurance**		
Response	**Yes**	**No**	**P value**	**Yes**	**No**	**P value**
Interventions	**n = 36**	**n = 31**		**n=44**	**n = 23**	
Assess in the acute setting	13 (36%)	2 (5%)	0.007	8 (18%)	7 (40%)	0.4
Coordination of assessments & referrals	18 (50%)	18 (58%)	0.6	25 (57%)	11 (48%)	0.6
Coordinates regimen in a rehabilitation setting	10 (28%)	4 (13%)	0.2	9 (20%)	5 (22%)	0.9
Coordinates & accesses community services	27 (75%)	17 (54%)	0.1	27 (61%)	17 (74%)	0.4
Coordinates & accesses services for work reintegration	20 (57%)	21 (68%)	0.5	32 (73%)	9 (41%)	0.02
Negotiate the service within the benefit program	15 (42%)	19 (61%)	0.1	26 (59%)	8 (35%)	0.08
Monitoring progress & support from service providers	13 (36%)	23 (74%)	0.003	29 (66%)	7 (30%)	0.01
Liaison with role player for rehab & training	8 (22%)	3 (10%)	0.2	7 (16%)	4 (17%)	0.9
Work site visits to assess needs of employer & employee	27 (75%)	11 (35%)	0.001	25 (57%)	13 (57%)	0.9
Advocate ongoing medical & rehabilitation services	27 (75%)	24 (77%)	0.9	34 (77%)	17 (74%)	0.8

There is frequent involvement by respondents from the insurance field (73%) in the coordination and access of services to assist in the management of the clients' reintegration in the work environment yielding a p value of 0.02 highlighting the relationship between this function and the area of practice. This is reflective of participation in coordination of services, a key case manager function with the aim of retaining the client at work despite the effects of illness or a disabling medical condition.

Occupational therapists in private practice are not involved in monitoring progress and support from service providers whilst the p value of 0.01 for insurance indicates that these respondents are more frequently involved in this function documented as part of the case management standard of practice[9]. Occupational therapists in private practice are commonly involved in work site visits as indicated in

table II above (p value =0.001). Moreover occupational therapists that work in insurance (27%) are making referrals for work site visits that may also be associated with the case manager function of transitioning the client back into the work environment. A high proportion of the referrals received by respondents are for work site visits or job analysis (67%). Within the insurance sector 44% of the occupational therapists conduct work site visits. A greater proportion (56%) that are from private practice receive referrals for the purpose of conducting work site visits whilst 27% from RAF also conduct work site visits. This usually precedes or is associated with the function of transitioning the client to the work environment which further demonstrates the role of the occupational therapist as case manager.

Service involvement

Occupational therapists had to rate their involvement in services on a five point scale from not at all to very frequently. Certain respondents indicated multiple areas of practice for e.g. insurance and private practice and are thus involved in a particular service in more than one area. A total of 67 occupational therapists responded to this question most of which indicated frequent involvement in disability management, case management and functional capacity evaluations. Disability management reflected largely as a role function of occupational therapists in insurance (79%) which refers to disability claims management.

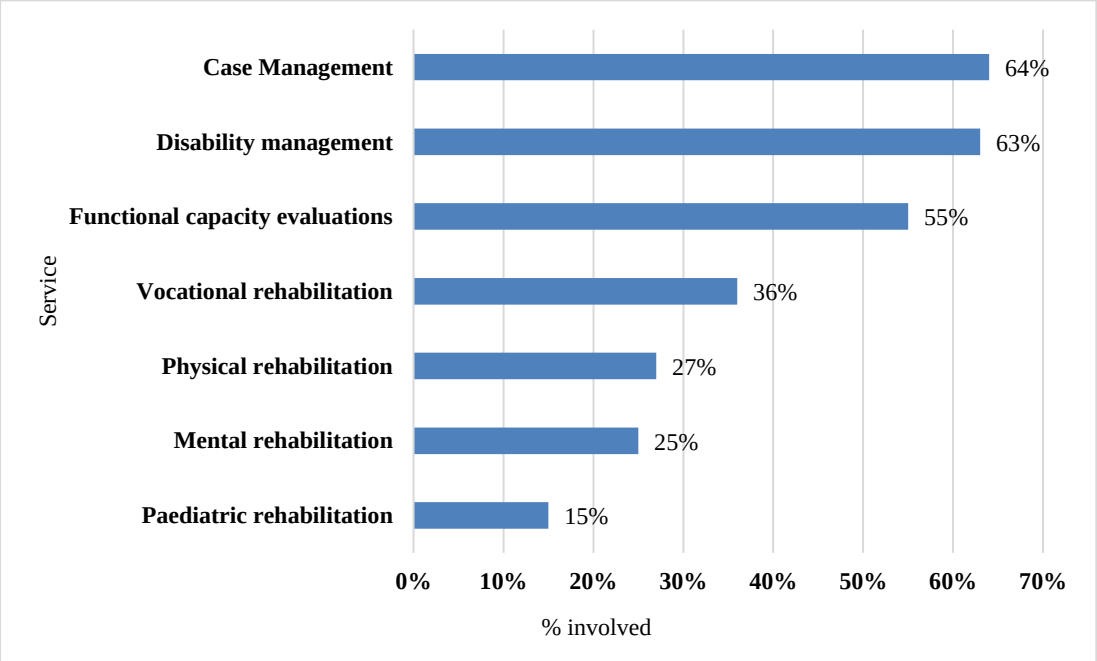

Figure 3: Percentage of service involvement

Of the 43 occupational therapists that indicated frequent involvement in case management 67% are from insurance, whilst 48% are from private practice. The second highest proportion of referrals received by the respondents are for case management (64%) followed by disability management (59%)

and functional capacity management (56%). The majority of these occupational therapists that receive referrals for case management are from insurance (60%) and private practice (26%).

Occupational therapists working within insurance (65%) also refer to other therapists for case management. The minority are from RAF (21%) and health consultancy (14%). Only 3% of respondents from hospitals indicated frequent involvement in case management. A smaller proportion of occupational therapists are frequently involved in physical rehabilitation (27%) and mental rehabilitation (21%) comparative to other domains such as functional capacity evaluations which is of interest. All occupational therapists from RAF are involved in medico-legal assessments and all occupational therapists from health consulting indicated involvement in absenteeism and incapacity management suggestive of main domains of practice. There is frequent involvement in vocational rehabilitation (36%) most of which are from insurance and private practice. From these findings it can be deduced that this group of occupational therapists are more involved in service provision in the fields of disability management, case management (64%) and functional capacity evaluations at varying degrees depending on the setting relative to other fields such as physical and mental rehabilitation which is central to their scope of practice.

Experience and academic preparation for case management

Experienced occupational therapists (74%) with 10 or more years of experience indicated regular involvement in case management. In general the sample comprised of more experienced occupational therapists. It is further noted that 53% that are often involved in case management have post graduate qualifications.

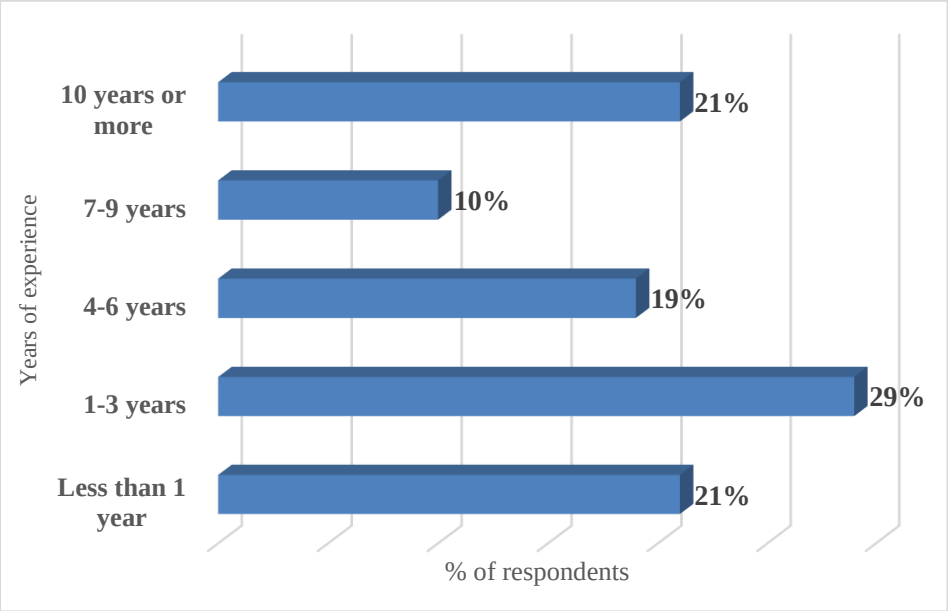

Figure 4: Years of experience in case management

Of the 76 participants 68% responded to this question regarding the years of experience in case management. The results indicate variable years of experience most of which (29%) have 1-3 years experience in the field. Of the 11 respondents that indicated 10 years or more experience 54% work in private practice and 45% work in insurance. The 11 occupational therapists with less than 1 year of experience in case management work in private practice (54%) and insurance (45%).

Of the 49 respondents 34% indicated that no or little training and academic preparation has been received in case management; 24% have learnt through experience whilst 20% indicated that training was received through a Diploma in Vocational Rehabilitation while one respondent indicated that he/she is the provider of training in case management.

All 53 respondents to the question on the benefits of training indicated that occupational therapists would benefit from training in case management. Occupational therapists suggested that there would be benefit at a post-graduate level (64%) as well as in house training (52%). The minority (48%) indicated that there would be benefit from training in case management at an undergraduate level. Although there are mixed opinions about the level all respondents indicated that educational preparation in case management would be beneficial. International literature supports the need for better training[4, 10, & 12] whilst in a South African research paper case management has been documented as a professional competency in vocational rehabilitation[15].

DISCUSSION

The results reveal that occupational therapists are involved in areas of intervention that are recognisable as case manager functions at varying degrees depending on the area of practice. The role of the occupational therapist in case management is exemplified by their frequent involvement in client advocacy and more specifically advocating for ongoing services (medical/rehabilitation); collaboration with the employer to aid in the transition back to work and the coordination of services to facilitate the client's work reintegration all of which are identifiable as case manager functions with a focus on occupational performance. The latter two functions relates to case management being referred to as a vocational rehabilitation service[14].

The findings indicate that most occupational therapists are involved in the case manager function of advocating for both the client and the payer/referral source with the majority being from the insurance sector which may be expected as this function is directly associated to disability claims management in the insurance field. Within the insurance industry a key performance area of the therapist is disability claims management which also entails advocating for the client via recommendations and advice for further management and rehabilitation to facilitate return to work[13]. A high percentage of occupational therapists agreed that there is involvement in encouraging the appropriate use of health care services/benefits to improve quality of care and maintain cost effectiveness most of which are from hospital practice areas and Workmen's Compensation. This is typically in keeping with the function of

case managers in hospital settings. Furthermore there is consensus regarding involvement in planning with the client and service provider/referral source to ensure optimisation of treatment and assistance in transitioning the client back into the home/community/work environment further illustrating participation in a fundamental case manager function documented as a component of the standard in case management[9].

The highest proportion of occupational therapists involved in comprehensive evaluation to develop a care plan are from private practice. This is expected as a detailed evaluation would usually precede the treatment or other interventions or may be the reason for referral to the occupational therapist. It is interesting to note that a higher proportion of occupational therapists are more frequently involved in functional capacity evaluations rather than physical and mental rehabilitation. It is expected that the smallest proportion of occupational therapists involved in this area of intervention are from insurance as they are not involved in clinical work inclusive of comprehensive evaluation however occupational therapists in insurance are more so involved in advocating to facilitate positive outcomes, transitioning the client into the community or work environment and encouraging appropriate use of healthcare. This relates to the key functions performed by occupational therapists in the life insurance industry as identified by Byrne[13] i.e. disability claims assessment/management, consultation with the employer and making recommendations for rehabilitation; motivating stakeholders on benefits and for referring claimants to service providers.

Occupational therapists in private practice and insurance are more frequently involved in specific case manager functions such as the coordination and accessing services to assist in the management of the clients' work reintegration. This relates to one of the key functions of the occupational therapists in insurance which is to manage claims to determine the extent of occupational incapacity /disability and to facilitate a return to work. Occupational therapists from insurance are also referring to other occupational therapists for functional capacity evaluation, independent evaluations and vocational rehabilitation which are related to their involvement in case manager functions such as coordination of assessments and referrals. Moreover there is regular participation in monitoring progress and support from service providers which is further related to their role functions in disability claims management where services such as specialist evaluation and reports are usually outsourced in order to gather additional and updated information on the claimant’s medical condition/progress and the impact thereof on work ability. A noteworthy finding is that occupational therapists within insurance are in fact utilising case management as an intervention in managing disability claims i.e. 60% indicated receipt of referrals for case management but are also referring to external occupational therapists for case management considering that 26% from private practice indicated that referrals are received specifically for this service. In this context given the increase in disability claims prevalence the demand for case management is likely to expand[13, 20-21].

As a domain of practice 37% indicated absenteeism and incapacity management and of the 43 occupational therapists that indicated frequent involvement in case management 14% are from health consultancy. Case management thus appears to be utilised as part of an early intervention approach once there has been an extended period of absence from work or a high rate of sick absence where the service entails comprehensive assessment to determine a care plan and coordinating and monitoring client care to prevent long term absenteeism thereby contributing to cost containment.

The research results indicate findings that are consistent with published international literature on occupational therapists as case managers[4, 10, 11 & 22]. These findings suggest that occupational therapists in South Africa are performing case management as an operational component of disability management as suggested by the TAG[23]. It is also evident that case management is utilised in vocational rehabilitation. Case management is a specialised area of practice[9, 16] and training in the field is not overt in occupational therapy training programmes. Even though most occupational therapists have post graduate qualifications and training with 10 or more years of experience as therapists all indicated there would be benefit from training in case management at undergraduate and post graduate levels.

CONCLUSION

This research study was novel in the South African context with the aim of identifying the occupational therapists' role and scope of practice in case management in South Africa. The study reveals that occupational therapists in South Africa are involved in case manager functions and are implementing case management as a strategy or approach to manage incapacity due to ill health and disability in the workplace. In keeping with international literature the study affirms that occupational therapists are offering unique skills to the field with their ability to address the clients' needs holistically with emphasis on improving and maintaining their abilities to engage in purposeful activity. They are natural advocates for their clients and results of the study indicate participation in aspects of client care that are recognised as case manager functions. Involvement in case management functions vary and range from brokerage functions by therapists working in insurance and health consultancy to more comprehensive and direct care by therapists in private practice. Occupational therapists in South Africa that are positioned in various settings viz. insurance, private practice, health consulting RAF and Workmen's Compensation have indicated involvement in case management and the study confirmed the utilisation of this intervention in vocational rehabilitation and as an element of disability management. Occupational therapists indicated that there would be benefit from training specific to case management at undergraduate and post graduate levels and thus further research may be necessary regarding the inclusion thereof in the undergraduate and or post graduate curricula. Given their current contributions to the field occupational therapists face the challenge of expanding their knowledge in case management and in promoting their skills to allow for relevant utilisation of this approach with emphasis on early intervention. Considering the use of case management with a focus on occupational performance further research may be necessary to establish a standard of practice for application in vocational rehabilitation.

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2.6. Bridging

The first article addresses the objective which was to identify if there is a match between the services and functions of South African occupational therapists to that of case management functions. It describes the roles and functions of the occupational therapist relative to case management. This article further describes the skill base and knowledge of occupational therapists relevant to case management. The second article describes the conceptual models used and identifies if standards of practice are applied in case management by occupational therapists. It further describes the practice difficulties/challenges and identifies the effectiveness of case management experienced by occupational therapists.

2.7. Journal article 2

Factors that Contribute to the Effectiveness of Case Management Experienced by Occupational Therapists

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ABSTRACT

Introduction: This article adds to the author's previous work on the role of the occupational therapist in case management in South Africa. The article describes conceptual models and a standard of practice, the challenges and the effectiveness of case management as experienced by occupational therapists.

Method: A quantitative design was applied utilising a questionnaire distributed to 180 targeted occupational therapists within private practice, insurance sector, Road Accident Fund (RAF) and Workmen's Compensation.

Results: Thematic analysis revealed four main contributory factors to the effectiveness of case management viz. adequate support systems; adherence to a collaborative process; client or claimant attributes and a standard of practice. Common barriers encountered include inadequate workplace support, expensive or inaccessible rehabilitation/ health care facilities and poorly developed rehabilitation programmes, client attributes such as motivational levels and a lack or gap in the standard. Case management is often selected as an intervention as part of vocational rehabilitation.

Conclusion: Case management is utilised for a targeted group such as individuals with mental health and behavioural disorders which suggests the need for clinical pathways that includes this intervention early in the process as a standard. Furthermore identification of high sick absence and prolonged incapacity from work highlights the importance of early intervention and timely inclusion of this strategy. Considering the results recommendations were made for a standard of practice to ensure accountability and to validate positive outcomes and for evidence on the actual outcomes achieved and rate of success with case management.

Key words: occupational therapist, case management

INTRODUCTION

Case management is identified as a proactive approach in the integration of services that entails client identification, assessment, planning and coordination of care[1]. In South Africa it is considered to have progressed into an essential requirement in the industry of health and wellbeing and is recognised as

elemental in the process of service delivery and client care management in hospitals, managed care organisations and medical schemes[2]. The Case Manager Association of South Africa (CMASA) [2] further acknowledges that case management is also being utilised outside these settings for coordination of rehabilitation and in vocational or return to work programmes when injury or illness negatively affects work ability and the ability to return or remain at work.

Case management is acknowledged as a component of integrated disability management which focusses on early return to work with the aim of improving overall workforce health[35]. The researcher has observed that occupational therapists involved in the field of disability management are utilising case management as an approach to retain incapacitated and disabled employees in the workplace however there is a lack of evidence to support this intervention or indication of the factors that contribute to the effectiveness of case management[27]. The proactive monitoring of the effectiveness is considered to be a critical constituent of a case management system[3] which is also necessary to denote evidence based practice and to reinforce the case manager[12]. One of the objectives of this study was therefore to identify the effectiveness of case management as experienced by occupational therapists. Secondly, in this context it was necessary to describe the practice difficulties or challenges experienced by occupational therapists. Other related objectives were to identify if standards of practice are applied and to describe the conceptual models used by occupational therapists in case management and lastly to describe the skill base and knowledge of occupational therapists relevant to this area of practice.

LITERATURE REVIEW

Benefits of case management

There is support for the use of case management in six countries but there has been limited indication of the types of cases that benefited from this approach and inadequate substantiation of the factors that contribute to positive outcomes[4]. Similarly Ross, Curry and Goodwin[1] indicated that there is mixed evidence for case management although if planned and implemented efficiently it can result in better outcomes facilitating cost effective care. This suggests the necessity for a standard of practice in case management. Moreover researchers found that successful outcomes are achieved with case management when it is a component of a broader programme where the collective effect of various approaches instead of a single intervention is of benefit to the client[5, 6]. Some researchers found that the use of evidence-based decision support tools as well as prediction models based on the clients' level of independence in activities of daily living can result in more effective case management[7].

The main features of effective case management as documented by the New Zealand Office of the Auditor General[3] are identification of the claimants needs; the provision of suitable medical treatment which includes physical and mental rehabilitation; the provision of daily living support if required and the provision of relevant vocational training or re-training. It has been suggested that the enablers of successful case management are the role and skills of the case manager; programme design and factors

within the wider system such as stakeholder engagement, linkage between health and social care and service provision in the community[1].

Skills of a case manager

In order to ensure successful case management an individual or team must be responsible for and oversee the entire care process as well as the services required by the client[8]. If not the possible outcome is fragmentation of care and associated problems and a lack of positive client experience[9]. Role and responsibility clarification of the team and adequate communication is essential to expedite the case management process[10]. Various clinical and non-clinical individuals can perform the role as case manager[1]. There is evidence from studies that professionals such as nurses, social workers, physiotherapists and occupational therapists function as case managers[10, 11]. As such, it is not the professional background that ascertains effectiveness in the role but it is vital that they are adequately trained with the required skills[1].

For the programme to run efficaciously, the case manager necessitates sufficient skills and expertise to be able to fulfil the role favourably[1]. Likewise the CMSA[12] indicates that for successful outcomes to be achieved in case management specialised skills and knowledge must be applied that include effectual relationship formation, adequate written and verbal communication; negotiating skills; knowledge of policies and procedures and other formal arrangements; evaluation and discerning analysis; and adequate planning and organisational ability. Ross et al[1] highlighted three main skills that case managers require which are relevant to this study viz. interpersonal skills, problem solving skills; and negotiation and brokerage skills. The occupational therapists' distinctive input to case management is the skill and specialised academic training in occupational performance although they have lesser preparation in certain functions of a case manager such as the conventional broker model which entails identification, gaining access to and the coordination of services to cater for the client's needs[16]. Similarly Lohman[17] indicated that occupational therapists contribute a range of skills as a case manager with an integrative outlook on client care but in fulfilling this role further readiness in advocacy, medical care, clinical pathway advancement and management of a team may be beneficial.

Case management models

The Conrad Hilton Foundation[18] indicated that organisations utilise case management without clear indication of the approach in relation to available case management models and recommends that organisations should design a comprehensive approach to case management which includes researching and designing a model. Krupa et al[16] further suggested that the means to developing into an effectual case manager is in the evaluation of stances, knowledge and skills relative to an explicit model of case management.

The broker case management model and the clinical case management model are considered to be standard community care models whilst the rehabilitation-oriented community care model includes the strengths model and the rehabilitation model[19]. Through the broker case management model the case manager facilitates cost effective services for the client[20]. A limitation of this model however is that the case manager does not provide clinical services[19]. The use of this model by South African occupational therapists relevant to their field of practice was explored through this study.

The strengths model which focuses on the individual's strengths and abilities rather than limitations or impairment is based on a good case manager client relationship and includes the creation of community collaborators and work with the client in the community[21]. The rehabilitation model was developed to focus on improving areas of functioning and achieving the individuals own goals[18]. A review of the literature on the application of this model by Vanderplasschen, Wolf, Rapp and Broekaert[22] cited that a few projects used this model, one of which found limited change regarding client outcomes other than improved legal outcomes following six months and improved employment situation after 12 months. Selander et al[21] found that case management and the strengths model could be regarded as a successful means for use in vocational rehabilitation for individuals on sick leave and for those who are unemployed. Given the available literature on the strengths and the rehabilitation model it appears that these models may be considered for use in vocational rehabilitation and community reintegration though further research was necessary on the models used and the effectiveness thereof.

Standards of practice

Standards of practice have been developed by the Case Management Society of America, National Case Management Network of Canada, The Case Management Society of the United Kingdom and the Case Manager Association of South Africa.

By developing and implementing standards of practice organisations aim to raise the quality and effectiveness of case management thus providing best practice guidelines[23]. The Case Management Society of America acknowledged that the future of case management practice depended on the quality of their performance and the case managers outcomes. The standard of practice is not meant to provide a structured method of service delivery but provides an indication of the mainstay functions, roles, responsibilities and relationships that are essential to case management[12]. The standards of practice by all four societies provide guiding principles and case manager functions/responsibilities for client assessment, problem identification or goal setting, planning, implementation/ intervention, monitoring, discharge and transition/transfer of case.

METHODOLOGY

Study design

A quantitative research design was used in order to derive conclusions that are statistically significant[29] using descriptive information obtained from a targeted population of occupational therapists working in the private sector and within the Road Accident Fund (RAF) and to examine the relationships among variables[28]. A good description of the variables was necessary to appraise the statistical data in relation to the research question[30].

Study method

A questionnaire with closed ended and open ended questions was formulated and utilised as the data collection tool as none were available that could be used to respond to the objectives of the study. A continuous, Likert scale was used to quantify the components of the tool with category responses for the closed ended questions that ranged from strongly agree to strongly disagree and not at all to very frequently. The questionnaire comprised of six sections with 31 questions. Sections one to four comprised of close ended questions regarding the demographics of the participants, case management interventions and guiding principles, occupational therapy interventions, standards of practice in case management and models utilised by occupational therapists. The last two sections comprised of open ended questions related to the effectiveness of case management and the skills base and knowledge applicable to case management.

The questionnaire was designed using Surveymonkey an online survey tool. This was to establish reliability. The questions were concise and comprehensible with a higher percentage of closed ended questions (74%) to assure quick decision making from the options provided and for timeous completion. In addition a better response rate was anticipated with the utilisation of an online survey taking into account the relative ease with which the questionnaire was accessed and completed. In order to ensure content validity an intensive review of the literature predated compilation of the data collection tool. Furthermore the questionnaire was compiled relative to the objectives and a pilot study was conducted.

Ethical clearance

Ethical authorisation (HSS/0134/016M) had been obtained from the Humanities & Social Sciences Research Ethics Committee of the University of KwaZulu-Natal.

Data Collection

Occupational therapists from private practice, the insurance industry, health consulting and RAF were targeted by virtue of the researcher's observation of the use of case management within these domains. The sampling method chosen was thus purposive with the use of a distinct group in view of their know-

how and exposure to the area. The population comprised of 180 occupational therapists that met the inclusion criteria; 117 from private practice, 42 within the insurance sector, and 21 from health consulting/broker. This excluded occupational therapists that work for RAF as approval to administer the questionnaire was obtained after the data collection term. The questionnaire was however administered to private occupational therapists involved in the provision of services to RAF. Occupational therapists identified for exclusion were those from the public sector as case management within these areas customarily forms part of managed health care performed by nurse case managers[24]. Recently qualified occupational therapists and those in community service were further excluded given that case management has been recognised as a specialised field of practice[25]. The questionnaire was administered and data collected via Surveymonkey.

Data analysis

Weights were attached to the answer choices for the closed ended questions with mean calculations for each choice. Data was exported to Microsoft Excel for an analysis with a Statistician from the Department of Biostatistics at the University of KwaZulu-Natal using numerical and graphical summaries. A descriptive analysis was undertaken using the mean and for depiction of the dissemination and array of responses. The Fisher's Exact statistical test was applied for a bivariate analysis to determine non-random associations between two categorical variables and the related significance. The results were presented in tables or figures and were interpreted from the statistical test. Qualitative data analysis was used for the open ended questions which entailed coding of the data in order to identify and distinguish primary/main and secondary/sub themes to be able to highlight the most essential concepts and relationships. The initial codes were reduced to sub categories/subthemes and categories and finally into themes.

RESULTS

This study appraised occupational therapists from various areas of practice and generated 77 respondents with a response rate of 42%.

Respondent demographics

The sample constituted more experienced occupational therapists (71%) with 10 or more years of experience. 49% have post graduate training and qualifications which includes a masters' qualification (14%), Honours Degrees and post graduate diplomas (22%) and certifications in functional capacity evaluation courses such as Workwell Systems and Ergoscience. A higher percentage of respondents were based in Gauteng (49%) whilst 20% and 17% indicate KwaZulu-Natal and Western Cape respectively as their location of practice. Respondents indicated more than one area of practice with more than half the respondents indicating private practice (55%) and insurance (62%) as practice areas. RAF was indicated as an area of practice by 20% whilst 15% and 9% indicated health consultancy and

hospitals respectively as areas of practice. A smaller percentage (8%) was from Workmen's Compensation. These respondents are involved in various domains of practice inclusive of disability management (65%), vocational rehabilitation (41%), physical health (38%), medico-legal work (38%), absenteeism and incapacity management (37%) and mental health (25%). Fewer respondents are involved in paediatrics (16%). The greater ratio of involvement in disability management relates to the high percentage from insurance (62%) given that this is a key performance area for occupational therapists working within this sector whilst the percentage of vocational rehabilitation therapists correlates to the percentage in private practice.

The following results are based on the data collected from more than half (58%; n=45) the total number of respondents which provides a view of the narrative responses to the open ended questions regarding the evaluation of the outcomes and effectiveness of case management.

Evaluation of the outcomes and effectiveness of case management

With regards to evaluation of outcomes, an emergent theme arose i.e. monitoring and review utilising feedback from role players such as the employer, the employee, the insurer and health professionals or medical practitioners. Feedback from employers occurs via various methods such productivity reports, telephonic consultations, meetings with the employer and the employee and work site visits. This feedback from the employer may specifically relate to whether the employee has successfully and sustainably returned to work as recommended with or without accommodations as 35% of the respondents indicated that this is also used as a measure to evaluate the effectiveness of case management. Feedback from health professionals and medical practitioner is usually obtained in the form of progress reports based on re-evaluations.

Only two respondents indicated that statistics are collated in order to evaluate the outcomes with case management. Two respondents indicated that no formal measures are utilised to evaluate outcomes.

The responses pertaining to the evaluation of the effectiveness of case management reflects one emergent theme viz. the attainment of goals with three underlying subthemes. The foremost subtheme in this context is successful and sustainable return to work as identified by 35% of the respondents. The second emergent subtheme is improvement in functionality and the level of reintegration to work and home life. One respondent indicated that effectiveness is also measured through optimisation of rehabilitation to determine if the client received necessary rehabilitation, assistive devices, home modifications and caregiver support. The third subtheme is through the analysis of the cost savings.

Factors that contribute to the outcomes in case management

Of the 49 respondents to the question regarding outcomes with case management 83% (n=41) indicated successful outcomes with case management. Based on the narrative responses on factors that contribute to the successful outcomes in case management and the barriers to effective case management there were four emergent themes illustrated below:

Table I: Contributory factors to outcomes in case management

Contributory factors to effectiveness	**Barriers to effective case management**
Good support system	*Inadequate support systems*
Employer Financial Family or community	Inadequate workplace support Time constraints Lack of finances or delays in payment to medical practitioners/service providers Caregiver Expensive or inaccessible rehabilitation/health care facilities and poorly developed rehabilitation programmes
Adherence to collaborative process	*Insufficient collaboration*
Coordinated rehabilitation Comprehensive rehabilitation Teamwork	Poor communication Poor liaison
Client or claimant attributes	*Client or claimant attributes*
Intrinsic factors Extrinsic factors	
Standard of practice	*Lack of or gaps in the standard*
Client identification and selection Comprehensive assessment Planning Monitoring responses	Poor case selection Late referrals Inadequate monitoring and follow up

Good support systems appeared as a central theme in 31% (n=37) initial codes with respect to the factors contributing to the effectiveness whilst inadequate support systems (60%; n=59) reflected as a barrier. Within good support system three sub categories are entrenched as highlighted above. Embedded in the subtheme of employer support (54%; n=37) was an indication of the employer's role in the process which included consideration of reasonable accommodations, human resource planning and compliance with the Employment Equity Act and Code of Good Practice. As a barrier inadequate support in the workplace constitutes subthemes viz. unwillingness of employer to accommodate incapacitated or disabled employees and non-adherence of employer to recommendations made by the case manager.

Respondents indicated a lack of buy in from the employer impacted negatively on the case management outcome. Stigma related to employees with medical conditions in the workplace was further identified as a barrier. Notwithstanding there are a few respondents that acknowledged that the unavailability of job positions posed an obstacle to case management or even consideration for funding of this service as most insurers may only consider covering the cost if employment opportunities exist particularly with the client's or claimant's own employer. This may also relate to restrictive occupations where the claimants' medical condition precludes work in a safety critical work environment.

Financial support refers to funding by the payer such as the insurance company that is liable for paying disability related benefits, the health consultancy that provides an opinion regarding the impact of a medical condition on the employee's work ability and recommendations for optimisation of treatment; the medical scheme and the employer. The respondents that suggested financial support as a contributor to favourable outcomes indicated that funding is required for adequate number of sessions, rehabilitation and consideration for vocational rehabilitation and for reasonable accommodations. Conversely lack of finances or delays in payment to medical practitioners/service providers, lack of adequate rehabilitation or appropriate service providers, expensive or inaccessible rehabilitation/health care facilities and poorly developed rehabilitation programmes appeared as subthemes of inadequate support systems. Time constraint was identified in relation to the requirements for a progressive return to work.

The second theme linked to the attainment of successful results is adherence to a collaborative process. This includes coordinated and comprehensive rehabilitation as well as team work whereas insufficient collaboration due to poor communication between role players emerged as an obstacle. Certain respondents were of the opinion that comprehensive rehabilitation was essential which begins with cooperation from rehabilitation facilities in accepting clients into their programmes as well as accessible and affordable services. Comprehensive rehabilitation also refers to early intervention particularly for clients diagnosed with mental and behavioural conditions. One respondent suggested that case management is effective when it is implemented in conjunction with vocational rehabilitation. This links to the response rate in respect of client selection as 80% of the respondents reported that clients are selected for case management as part of vocational rehabilitation to ensure that more beneficiaries return to work and to assist employees to regain the capacity to sustain regular employment.

Role player participation and buy in, cooperation from all stakeholders, case manager attributes and good communication practices encompasses teamwork that emerged as a subtheme under collaborative process. In terms of case manager attributes respondents are of the opinion that a motivated and competent case manager with good clinical skills and reasoning as well as knowledge on all relevant aspects such as labour legislation and policy conditions and its application are vital for successful

outcomes. Furthermore the case manager should be able to set realistic goals and maintain close contact with the client. Good communication practices relates to regular and ongoing interaction between the roles players and updates to the referrers.

Respondents indicated that inadequate or slow paced communication/feedback between rehabilitation professionals and the treating specialists hindered successful outcomes with case management. Poor liaison resulted in uninformed role players and poor buy in from the team that may be perceived as uncooperative. This further relates to case manager strengths and competencies in the process where one respondent indicated that non-adherence to time frames and goals impacted negatively on the case management outcome.

The third emergent theme was client/claimant attributes as indicated in 23% (n=28) initial codes with subcategories of internal and external factors. 51% (n=24) suggested client/claimant attributes as a barrier to effective case management. Internal factors include the clients' motivational level, positive attitude and self-determination. The lack of employee/client motivation reflected as a subtheme (18%; n=21) that is affected when the client/claimant or employee adopts a sick role that at times may be associated with secondary financial gain. Extrinsic factors identified are treatment compliance, adherence to rehabilitation protocols, client insight which is considered to be essential for optimisation of treatment, the extent of impairment and worker behaviours such as good relationships with colleagues and supervisors; good work record and motivation to return to work. Respondents that identified insight specifically suggested the need for the client to understand their role and responsibilities in the process as well as policy conditions and the claims assessment process. Poor client compliance to treatment and rehabilitation, lack of insight regarding interventions, the presence of co-morbid medical conditions and relapsed medical conditions appeared as barriers within the extrinsic factor subtheme.

Standards of practice emerged as the final theme which provides a fundamental reference guide for case managers to ensure quality and effectiveness of the service. Subthemes within the standard of practice were client identification, assessment, planning and monitoring. Respondents indicated that client identification and selection was essential in achieving positive outcomes and hence there is a set of criteria that should be referred to in targeting clients that are likely to benefit from case management. A comprehensive assessment is necessary to establish a baseline from which to work in view of the problems identified. Planning which entails clear cut programmes with realistic goal setting and time frames as well as monitoring of responses were referred to as contributors to successful outcomes with case management. The lack of a standard of practice or gaps in the standard emerged as a theme encompassing sub themes that reflect the perceived barriers to effective case management. This refers

to poor case selection when clients are not identified appropriately as well as late referrals which eliminate a proactive approach with emphasis on early intervention.

Standards of practice in case management

A standard of practice is a guideline on the process of case management to enable outcome based practice and adherence thereof is considered essential and an important performance area of a case manager[12]. In response to the open ended question regarding the effectiveness of case management only 13%; n=15 respondents referred to the necessity of standards of practice to achieve positive outcomes in case management. The elements of case management are client selection; client assessment, problem identification; planning; implementation; monitoring and termination[12]. Table II below highlights the criterion applied by respondents in case management for client selection and assessment; and problems identified through assessment.

Table II: Top five criterion implemented in practice

Client Selection N=59	**Mean**	**Client assessment N=60**	**Mean**	**Problems identified N=58**	**Mean**
As part of vocational rehabilitation	3.14	Employment information	4.45	Difficulties and poor productivity in the workplace due to ill-health	3.95
Need for monitoring in the work environment	3.05	Functional capacity evaluations	4.41	Inadequate/delayed rehabilitation	3.84
History of mental illness	2.96	Physical/functional assessments	4.40	Lack of insight of current conditions & what constitutes optimal medical intervention/rehabilitation	3.80
Psychosocial issues & stressors	2.93	Reports on independent evaluations from specialists	4.37	High rate of sick absenteeism or protracted incapacity from work	3.79
Presence of co-morbidities or multiple conditions	2.88	Work site visit/job analysis	4.25	Over-utilisation or underutilisation of services	3.61

Most (80%; mean=3.14) of the respondents opt for the use of case management as an intervention as part of vocational rehabilitation. Most of these occupational therapists are from private practice (83%), health consulting (83%), RAF (82%) and Workmen's Compensation (80%).

Fewer occupational therapists from hospitals (n=3; 60%) select clients for case management as part of vocational rehabilitation as illustrated in figure 1 below. These occupational therapists identify clients for case management when there is a need for monitoring in the work environment to ensure successful reintegration (n=5; 80%) as depicted in figure 1. This criterion reflects the second highest mean (3.05). In general respondents from all areas of practice select clients for case management when there is a need for monitoring in the work environment.

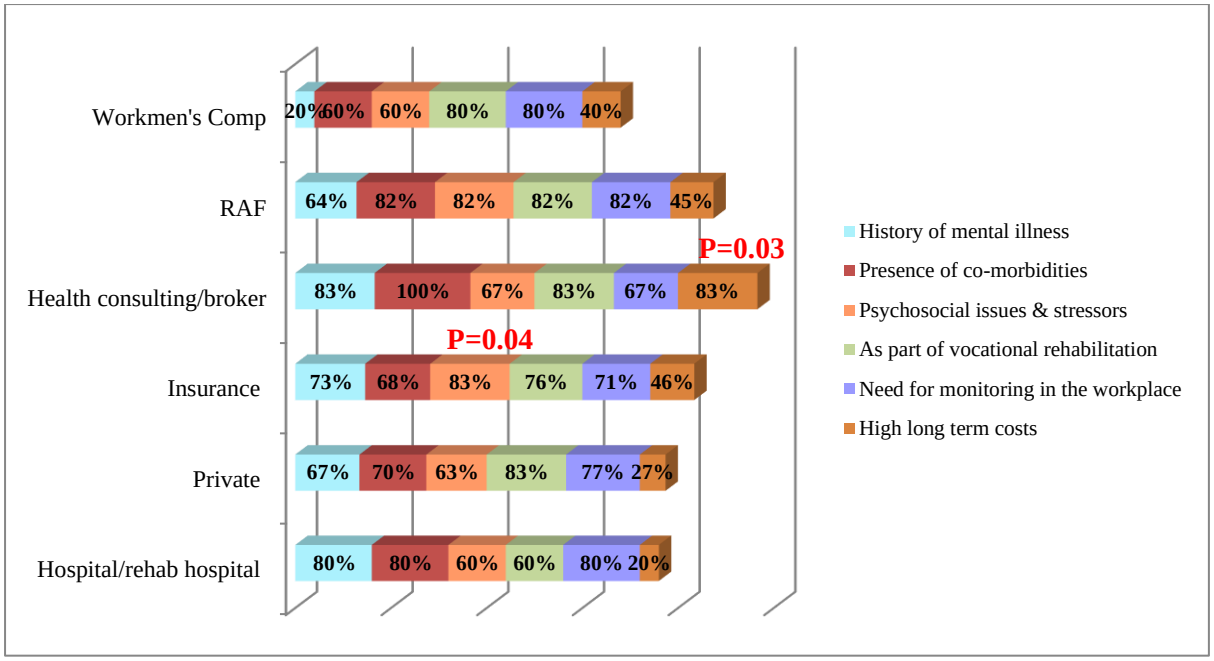

Figure 1: Criteria for client selection per area of practice

A high percentage (75%) of occupational therapists further utilise the history of mental illness for client selection. History of mental illness is utilised by a greater proportion (83%) of occupational therapists in health consulting compared to other areas.

The highest proportion of respondents (93%; mean=4.5) use employment information for client assessments in case management. This is followed by report on independent evaluations from specialists (90%; mean=4.37), physical/functional assessments (86%; mean=4.40) and functional capacity evaluations (88%; mean=4.41). It is further noted that 83% (mean=4.25) further utilise work site visits/job analysis in the client assessment.

As depicted in the table II above the top five problems identified through assessment are difficulties and poor productivity in the workplace due to ill-health (77.5%); inadequate/delayed rehabilitation (72.4%); high rate of sick absenteeism or protracted incapacity from work (68.9%); lack of insight of current conditions (67%) and over-utilisation or underutilisation of services (58.6).

The highest proportion (97%; mean=4.50) of respondents agreed that in planning and goal setting information gathered through assessment should be documented. Most respondents agreed that response to case management is monitored through collaboration with the client and relevant role players (85%; mean=4.25). A greater proportion of respondents agree (76.6%; mean =3.95) that case management is terminated when goals such as transition to the next level of care is achieved.

Models utilised

Of the 76 participants 48 responded to this question. Only four indicated no utilisation of a model or uncertainty about the model used in practice.

Figure 2 below indicates that most respondents utilise the Broker case management model (46%), Model of Human Occupation (42%) and Clinical/rehabilitation model (40%).

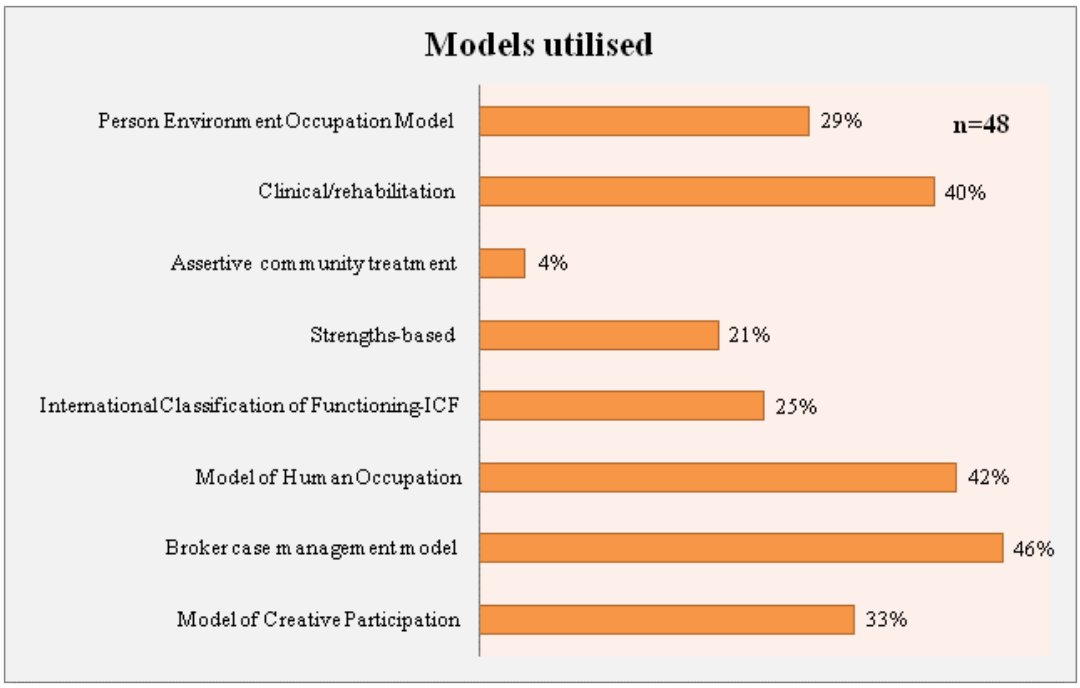

Figure 2: Models used

Of the 39 respondents 31% (n=12) found the Broker case management model to be effective, 11 of which are from insurance and one from health consulting. Based on the reasons cited for selecting the Broker case management model as being effective with case management there were three broad themes that were emergent. Firstly given the nature of the insurance environment services are outsourced with no active rehabilitation but coordination and monitoring of the process. Secondly there is direct liaison with all parties involved for e.g. the occupational therapist is seen as an independent impartial service provider; and thirdly objective information can be gathered to facilitate the client's return to work.

Of the 39 respondents 21% (n=8) found the Model of Human Occupation to be effective with case management most (15%; n=6) of which are from private practice. From the eight respondents, five indicated that this model is considered to be effective with case management as it is client centred, holistic in nature and is evidence based where goals are measurable and individualised. Clinical/rehabilitation model is utilised by 40% (n=19) that work predominantly in private practice (63%). This is expected as these occupational therapists work more closely with the client in clinical

and rehabilitation settings where the emphasis is on the importance of consumer-driven goals, assessing and building concrete skills to attain goals. Only two respondents that are from insurance and health consulting suggested that the Clinical/rehabilitation model was most effective with case management. The reason for this as reported by one respondent is that it allows for optimisation of treatment to ensure successful return to work. There were 12 respondents or 25% that indicated the use of the International Classification of Functioning model (ICF), two of which reported effectiveness with case management as the model is integrated and well researched.

Of the 16 or 33% that utilise the Model of Creative Ability six indicated that it is effective with case management, three of which indicated that the reason for this is that there is focus on the client's abilities and strengths rather than the disability. Moreover two respondents advised that it provides a good guideline with regards to the action and motivational level of the client which assists with planning that is notably an essential component of the case management process. As the model describes the level of motivation and the corresponding action two respondents indicated that the focus on ability impacts on the client's motivation and that the client's motivational level and support system also influences their ability to perform.

It is interesting to note that 21% (n=10) of respondents indicated the use of the Strengths-based model. These respondents are from insurance (n=6) and private practice (n=4). Only 20% (n=2) of respondents indicated the effectiveness of the strengths-based model with case management, one from private practice and one from insurance. One of the respondents found that the strengths-based model is effective with case management as it empowers individuals which usually results in engagement from the individual. One respondent reported that Motivational Interviewing is effective with case management as this approach improves compliance. Motivational Interviewing is client centred therapy that aims in the resolution of often unsure attitudes to change in behaviour[26].

DISCUSSION

This study aimed to identify the occupational therapists' role and scope of practice in case management in South Africa and the findings revealed involvement in interventions recognised as case manager functions, the extent of which differed depending on the domain of practice. A high proportion of respondents are utilising case management as a component of vocational rehabilitation and if there is a need for monitoring in the workplace when difficulties and poor productivity has been assessed. This is consistent with the use of case management with a focus on early return to work, thereby directing care to the relevant provider[17]. It is evident that occupational therapists are selecting case management as an intervention when the performance component of work has been affected which emphasises the distinctiveness of the occupational therapist as case manager in augmenting occupational performance[16].

Majority of respondents indicated successful outcomes with case management which links to the achievement of goals set. The benefits of case management as highlighted within the approaches utilised to evaluate effectiveness relate largely to work re-entry that is favourable and sustained followed by transition to the next level of care; and maximisation of rehabilitation and cost savings. This is typically done by calculating the number of clients that return to work or the associated reduction of absenteeism costs or the number of disability benefits that terminated after recovery and return to work. This relates to an article on "occupational therapists as case managers" which indicates that if efficacious, case management can result in a reduction of work days lost and medical costs that are unnecessary[17]. The results of the study is further consistent with the findings of a reduction of disability outcomes and cost savings for the insurer and self-insured employers[32] that signifies the scope of the occupational therapist as case manager in disability claims management.

Case management should be custom made for the individual with the selection of models to meet the client's needs[31]. Most respondents indicated the Broker case management model to be effective and it is noteworthy that the vast majority of the respondents were from insurance where active rehabilitation is outsourced and the case manager is responsible for coordinating and monitoring services. Moreover this model is known to facilitate cost effectiveness which further relates to cost savings associated with work reintegration of disabled employees[20]. Fewer respondents indicated the effectiveness of strengths-based model with case management. Even though there is limited literature on the model one particular study indicated successful outcomes with the use of this model in case management as intervention within the vocational rehabilitation sphere[21] which is the second most prominent domain of practice as reported by the respondents. This suggests the need for further research related to this model.

The study revealed four main contributory factors to the effectiveness of case management viz. adequate support systems; adherence to a collaborative process; client or claimant attributes and a standard of practice. Good support systems emerged as a foremost positive influencing factor while more than half the respondents considered inadequate support as a barrier experienced. This correlates with the CMSA's (Case Management Society of America) Standard of Practice which emphasises support i.e. financial, from providers and society as inherent in the continuum of healthcare[12]. Employer support in the form of the employer's attributes and role in the case management process was indicated as a necessity for successful outcomes. Employer attributes may refer to a sensitised employer that is cooperative with the return to work process; demonstrates willingness to reasonably accommodate and generally buys into the process to reintegrate an incapacitated or disabled employee back into the workplace. Financial support within the workplace as a contributor to positive outcomes is associated with employer support particularly when a recommendation is made for the employer to pay a stipend during a job trial or the work reintegration period once the employee is capable of working with work adjustments or modifications for e.g. assistive devices, reduced working hours, reduced work load or with reallocation of marginal duties. Sufficient finances is essential for access to comprehensive and

timely rehabilitation and of interest is that inadequate/delayed rehabilitation was ranked the second highest problem identified for the use of case management. This finding is in keeping with a report by New Zealand Office of the Auditor General which indicates adequate rehabilitation as a main feature of effective case management[3]. As such whilst a case manager may be responsible for co-ordinating services the lack of finances may hamper positive outcomes.

The findings affirm the efficacy of case management through integrated care when there is a collaborative approach that includes a skilled and competent case manager and good communication within the team which further relates to the importance of role clarification and accountability to the client[1].

Case management is well known as a client centred approach that facilitates self-determination through advocacy[12]. Similarly occupational therapists consider their clients involvement in the process as vital in directing service delivery which further relates to the occupational therapist as case manager[9]. These guiding principles align to client/claimant attributes that can influence the outcome and refers to intrinsic factors such as the clients' motivation and attitude and extrinsic factors such as insight which is considered to be essential for optimisation of treatment and awareness regarding their roles and responsibilities, treatment compliance, extent of impairment and worker behaviours.

Various case management associations worldwide have established standards of practice to ensure efficacy through the provision of best practice guidelines[23] yet a smaller percentage of respondents referred to this as a necessity. Untimely referrals which eliminate a proactive approach with emphasis on early intervention and poor case selection were noted as perceived barriers. Monitoring which includes functions such as regular disability claim reviews that may specifically entail follow up with the treating specialist, ongoing assessment and documentation, regular liaison with the client and the employer is essential to ensure that goals are accomplished. In addition successful outcomes are considered likely if there is monitoring and follow up on case management. In selecting clients for case management a large percentage of respondents utilise the history of mental illness for client selection which relates to the prevalence of mental health problems that have been identified as five of the 10 leading causes of disability worldwide[33]. Furthermore it is essential to manage individuals with mental and behavioural disorders more rigorously with case management given the increase in disability claims on psychiatric grounds in South Africa[34]. Clients are further selected when there are psychosocial issues and stressors; and the presence of co-morbidities or multiple conditions which is reflective of a targeted group that demand a more intensive approach.

More than half the respondents indicated that a high rate of sick absenteeism or protracted incapacity from work is identified as a problem that would benefit from case management. It is therefore implemented as a strategy to manage long term incapacity from work in order to facilitate a return to

work which is linked to more successful and faster recovery; and considering the detrimental effects of lengthy sick absence from work on health and wellbeing[36].

These results support the significance and contributions of the occupational therapist in case management given the successful outcomes with this tool. The narrative responses delineate the factors that contribute to the effectiveness of case management as experienced by occupational therapists. This includes the necessity for a comprehensive collaborative partnership approach with all parties being au fait with their roles and responsibilities; with adequate support systems; a competent and skilled case manager and a standard of practice in place.

LIMITATIONS

There is limited research on case management and occupational therapy as well as the benefits of case management and the factors that influence outcomes to support the findings of this study. The data collected was used for a descriptive study with no causal research.

CONCLUSION

Case management has expanded as an essential approach to meet the changes within healthcare that is practiced by various health professionals. Occupational therapists in South Africa are involved in case manager functions as identified in this study and findings revealed implementation of case management as an intervention strategy. One of the objectives of the study was to identify the effectiveness of case management experienced by occupational therapists. Other related objectives were to describe practice difficulties/challenges experienced; to describe conceptual models used by occupational therapists and to identify if standards of practice are used in case management. Results highlight the use of case management where there is a history of mental and behavioural disorders which further emphasises the necessity for a critical evaluation of the multidisciplinary services available for individuals with mental illness for further recommendations on more comprehensive and inclusive service delivery for this population. This will provide a foundation for establishing a clinical pathways for mental and behavioural disorders that includes case management early in the process and in the community and work setting to allow for continuity of care. High sick absenteeism and prolonged incapacity from work that was identified as problems that would benefit from case management suggests the need for early intervention and clinical pathways that includes this service earlier to prevent long term absence from work given the negative effects thereof on health and wellbeing.

It is being utilised by occupational therapists particularly in vocational rehabilitation when there has been affected work performance and long term incapacity from work; and a positive finding is that the vast majority indicate the efficacy of case management which suggests the value in this approach and the uniqueness that the occupational therapist adds to the field with their experience and knowledge in

occupational performance. This paper describes the contributory factors to the effectiveness of case management as well as the barriers as experienced by occupational therapists which further emphasises the importance of adequate support systems; a collaborative process that demands teamwork and a standard of practice. Based on the findings of this study it is recommended that a standard of practice which outlines the roles and responsibilities and a process flow is imperative to eradicate certain barriers encountered. Respondents indicated the effectiveness of case management and methods utilised to evaluate outcomes however evidence on the actual outcomes achieved and rate of success is necessary through further research to demonstrate the benefits of this approach thereby contributing to evidence based practice.

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CHAPTER 3: SYNTHESIS, CONCLUSION AND RCEOMMENDATIONS

Introduction

This chapter includes an integration of the findings across the two manuscripts and a general overview of the significance thereof. There is further a discussion on the limitations of the study. It provides a summary which highlights how the original objectives reflected in the introduction were addressed in the manuscripts. In closing several recommendations are proposed.

Synthesis

Manuscript 1 focussed on identifying if there is a match between the services and functions of South African occupational therapists to that of case management functions. This article focuses in-depth on the occupational therapists involvement in role functions, identifiable as case manager functions and the frequency of involvement in services per area of practice. It includes an interpretation of the results on the occupational therapists' experience and academic preparation for case management.

In manuscript 2 the contributory factors to the effectiveness of case management as well as the barriers encountered are defined. This article describes the conceptual models used and the standards of practice implemented in case management. It underscores the criterion utilised by respondents in case management for client selection and assessment and problems identified through assessment that would benefit from this intervention.

The results of the first manuscript emphasises that in their respective areas of practice occupational therapists are applying role functions that are recognised as case manager functions. A case manager is identified by their functions and the role that they assume rather than the job position (Case Management Society of Australia and New Zealand, 2016). In keeping with this, findings of the first article reveals that occupational therapists in South Africa are fulfilling case manager functions, while the level of involvement was dependent on the area of practice. Key functions that they are involved in are, client advocacy to ensure ongoing medical/rehabilitation services, collaboration with the employer to aid in the transition back to work and coordination of services to facilitate reintegration at work. This supports the use of case management as a vocational rehabilitation service (Buys, 2015). These findings further relate to that of the second article which highlighted that clients are identified for case management as part of vocational rehabilitation.

Results of the first article reveal that occupational therapists from the insurance sector are frequently involved in advocating for both the client and the payer or referral source which links to their role function in disability claims management. This suggests the uniqueness and value of the occupational

therapist having core skills and a knowledge base related to functional impairment and occupational performance as well as rehabilitation services that the client will benefit from. Occupational therapists within the insurance sector are thus able to advocate for their clients to facilitate access to adequate rehabilitation services and to negotiate with the Employer regarding the disabled or incapacitated employees' needs to allow for reintegration to the workplace.

They are natural advocates for their client and thus this is an inherent function for an occupational therapist. The occupational therapist is skilled in recognising the service needs of a client and is capable of motivating for other services that are deemed beneficial (Krupa & Clark, 1995). A client centred approach is adopted and the occupational therapist considers the functional and occupational impairments in developing appropriate interventions (Baldwin et al, 2005). These occupational therapy principles are in keeping with those characteristically applied in case management (CMSA, 2010).

There is further involvement in planning with the client and service provider/referral source to ensure optimisation of treatment and assistance in transitioning the client back into the home/community/work environment which has been referred to as a component of disability management programmes (Technical Assistance Guidelines of the Employment of People with Disabilities). Case Management is therefore being utilised as a strategy in disability management. A high percentage of respondents from insurance indicated frequent involvement in case management and the second article reflected Broker case management model as the most commonly utilised model where the case manager is the coordinator of services and monitors ongoing health care of the client. These are typical functions of an occupational therapist in the life insurance industry (Byrne, 2005).

The diagram below illustrates the main domain of practice and key case manager functions per practice area as reflected in the first article. Within the hospital setting occupational therapists are mostly involved in the case manager function of encouraging appropriate utilisation of health care and benefits. The case manager in hospital and rehabilitation centres is usually a nurse who is employed to fulfil this role given their background in managed healthcare organisations. Occupational therapists adopt the same guiding principles as a case manager such as client advocacy and a client-centric, comprehensive and holistic approach although there is no academic preparation to assume this position and to fulfil all role functions of a case manager in the hospital setting.

Table 1: Main domain of practice and key case manager functions per practice area

Practice area	Key case manager function	Main domain of practice
Hospital	Encourages appropriate use of health care or benefits	Physical rehabilitation
Private practice	Comprehensive evaluation to develop a care plan	Case management Vocational rehabilitation
Insurance	Advocating for the client	Disability claims management

		Case management Vocational rehabilitation
RAF	Planning with the client & service provider/referral source	Medico-legal assessments
Workmen's Compensation	Educating/empowering the client/health care team	Physical rehabilitation Vocational rehabilitation
Health Consulting	Assist in transitioning the client, facilitating communication and coordination between role-players, planning with the client & service provider/referral source	Absenteeism and incapacity management

Within private practice occupational therapists are commonly involved in comprehensive evaluation to develop a care plan which is one of the key functions of a case manager. These occupational therapists indicated frequent involvement in case management which is implemented as a vocational rehabilitation intervention. Given their training in the assessment and remediation of dysfunction associated with occupational performance occupational therapists are offering a unique and distinct skill set to the field compared to other health professionals and are considered to be apt case managers once vocational potential is compromised following incapacity due to ill health or injury or as a result of a disabling medical condition. In this context results on the standards of practice used highlighted in the second article indicates emphasis on the performance component of work. This includes client selection where there is a need for monitoring in the work environment and the use of employment information and work site visits/job analysis for client assessment. Furthermore difficulties in productivity and attendance at work were identified as problems that would benefit from case management.

Occupational therapists that provide services to RAF are regularly involved in the case manager function of planning with the client & service provider/referral source which relates to other key role functions of case management to ensure access to the services required for optimal management and community reintegration. Workmen's Compensation occupational therapists frequently educate and empower the client/health care team whilst occupational therapists within health consulting are involved in transitioning the client to the next level, facilitating communication and coordination between role-players and planning with the client & service provider/referral source. One of the domains of practice for the health consulting occupational therapist is absenteeism and incapacity management. It therefore appears that case manager functions are employed as an early intervention approach to manage the prolonged period of absence from work and to facilitate a work re-entry. In highlighting the main domain of practice and the key functions that occupational therapists are frequently involved in as indicated in the first article it is evident that this professional can fulfil the role as case manager and is deemed better suited for this role outside the hospital setting in view of their skills and knowledge related to occupational performance and with the aim of transitioning the client to the next level.

One of the main contributory factors to the effectiveness of case management that emerged from the results in the second article was good support systems with employer support embedded as a subtheme. Adequate employer support entailed consideration of reasonable accommodations whilst a barrier to positive outcomes was noted to be unwillingness of the employer to accommodate incapacitated or disabled employees. Employer support is associated with attempts to retain disabled employees who become disabled during employment by reintegration to work where reasonable accommodations are considered and implemented (Technical Assistance Guidelines of the Employment of People with Disabilities). Unwillingness of the employer to accommodate is possibly due to a lack of education and awareness on the Code of Good Practice on the Employment of People with Disabilities and or stigma related to disability. Other barriers that were emergent from the results of the second article were inadequate support systems viz. expensive or inaccessible rehabilitation/health care facilities and poorly developed rehabilitation programmes. Inadequate or delayed rehabilitation was also cited as a problem identified that would benefit from case management. These barriers are indicative of fragmentation of services and inadequate monitoring and follow up.

Considering the successful outcomes with case management as indicated by the majority of the respondents reflected within the second article as well as the unique contributions that the occupational therapist is evidently offering to the field it is proposed that this approach can be implemented by an occupational therapist at every phase of rehabilitation as demonstrated in the sequence of service delivery suggested in figure 1 below. This structure is aligned to the framework of the International Classification of Functioning (ICF) which is organised according to two components viz. Functioning and Disability and Contextual factors which includes environmental and personal factors (World Health Organisation, 2013). This framework identifies the health care and rehabilitation needs of persons with disabilities and appraises the effect of the physical and social environment on the barriers that persons with disabilities experience (World Health Organisation, 2002). To enable an integrated and inclusive health care system and to overcome the barriers experienced, case management is considered essential at every level of care. The framework supports the premise that case management is implemented at different phases of the disability process for e.g. following an acquired illness or injury or as part of a long term care plan. In order to improve activity levels or to reduce participation restrictions the case manager is involved in the disability process at any stage which entails the coordination of relevant environmental systems and the mobilisation of resources (McAnaney, 2003).

Both the private and the public sectors of South Africa have acknowledged the importance of reform through managed healthcare. This includes the use of case management that has evolved as a vital function within healthcare to enable efficient cost management (CMASA, 2013). In South Africa this component of healthcare developed within medical schemes and hospital settings where a nurse is usually the case manager (Kgasi, 2010). Given the increasing demand for this service even outside the

hospital setting that is associated with long term incapacity and the upsurge in disability claims it is evident that this approach to managing healthcare has extended into the community and work environment. The findings of this study indicate that occupational therapists are involved in case management at this level of care however in South Africa it remains largely the domain of a nurse case manager within the hospital setting. Additionally occupational therapists in South Africa lack training in clinical pathways and team management to perform a main role as case manager in the hospital setting. One of the problems identified that would benefit from case management is inadequate or delayed rehabilitation. As depicted in figure 1 below it is therefore recommended that case management should be included as an intervention by an occupational therapist whilst the client is still an in-patient to ensure adequate follow up care and optimisation of rehabilitation even after discharge from hospital. This would entail planning with the client, family members and other service providers as well as coordination of services to avoid fragmentation after discharge and to facilitate access to adequate follow up care and rehabilitation which is likely to contribute to sufficient recovery and decreased sick absence and incapacity from work.

Furthermore the results reveal that case management is implemented once problems have been identified such as affected productivity, high sick absenteeism and over-utilisation or underutilisation of services. This suggests the necessity for a more proactive approach for an all-inclusive healthcare system which includes case management by occupational therapists as a standard at every level of care. Figure 1 below illustrates this and indicates the domains of practice, the level of case management and the models that can be used at each stage of care. This structure is deemed necessary and recommended to allow for continuity of care and more successful rehabilitation outcomes.

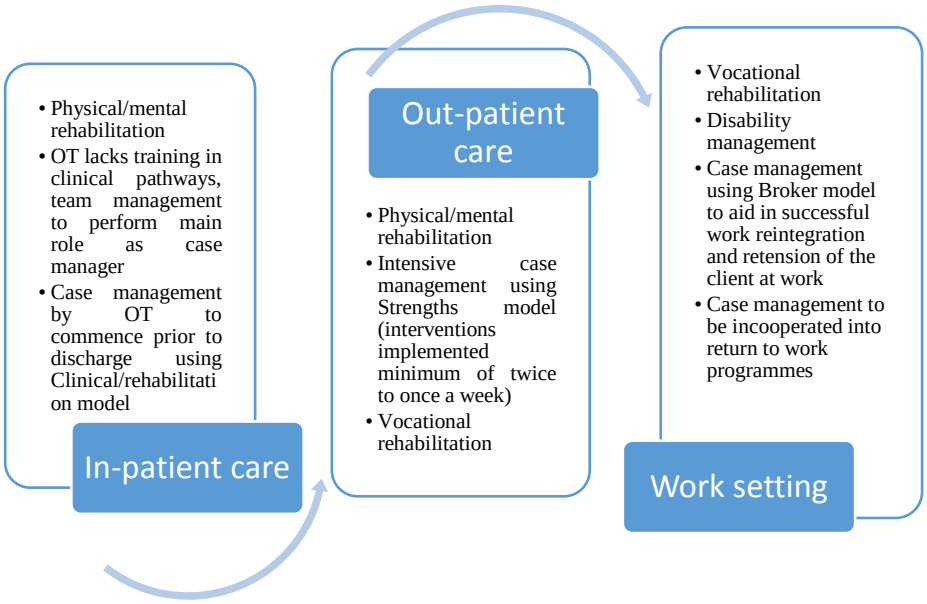

Figure 1: Case management at every level of service delivery

The Clinical/rehabilitation model is recommended during in-patient care as the occupational therapist would work more closely with the client possibly on a daily basis and intervention includes physical/mental rehabilitation, psycho-education and client education.

Following discharge and as part of the outpatient care programme it is suggested that the intensity of case management by an occupational should increase to augment recovery through coordination of services required, facilitating access to relevant services and as a component of vocational rehabilitation which may include functional capacity evaluations to establish the client's vocational potential, work site visits for a job analysis, and negotiation with the employer regarding a return to work plan/programme. Direct services would be essential at this level of care given the acuity or complexity of the case and hence the Strengths model is recommended. This model has a strong advocacy component with an active level of care that emphasises assisting clients to identify their strengths and abilities rather than focus on pathology and disease such that clients can assert direct control over the resources (Center for Substance Abuse, 1998). This aggressive approach which includes an intensive long-term client case manager relationship and coordination and provision of services such as vocational rehabilitation is deemed necessary to transition the client to the next level or back to the work environment (Vanderplasschen, Wolf, Rapp, & Broekaert, 2007).

The third phase of care would be continuous with the outpatient programme whilst the client returns to work. Vocational rehabilitation during this phase should continue in order to facilitate a successful work re-entry. The Broker case management model is recommended as the main case manager functions are likely to entail assessing needs, referring to services providers, co-ordination of services and monitoring the client in the workplace. This approach is considered appropriate in the third and final stage of care as the client-case manager relationship is less intensive and services are reasonably integrated (Center for Substance Abuse, 1998). During this phase case management should be in-cooperated into the return to work programme and may include the following:

- assessing the employee's need for particular services and making recommendations for such services to facilitate optimisation of treatment,
- review of accommodations recommended upon receipt of feedback on the employee's work performance and productivity to allow for a gradual return to work and reintegration,
- ensuring that the recommended assistive devices (if indicated) are obtained through internal processes,
- further assessment to monitor response to treatment and progress made with medical treatment and following implementation of reasonable accommodations to

determine if the employee can continue working in their own occupation or whether realignment is necessary.

Conclusion

Case management is applied in various settings and by different health professionals depending on the nature of care although the distinctive association between case management and occupational therapy practice and the unique skills that the occupational therapist contributes to case management required further investigation. The importance of this study was thus to recognise the link between the case manager and the occupational therapist in the South African context. Whilst there is an indication that certain occupational therapists have adopted case management in practice in South Africa, currently no South African literature or research exists.

The research findings indicate that in South Africa occupational therapists are frequently involved in advocacy for their clients; encouraging appropriate utilisation of health care/benefits to ensure quality care and cost effectiveness; planning with the client and service providers to facilitate optimal treatment and assistance in transitioning the client to the next functional level all of which are known as essential case manager functions. The participants included occupational therapists from private practice, insurance sector, health consulting, RAF and Workmen's Compensation and the level of involvement in the numerous case manager functions depended on the area of practice. More than half the occupational therapists in fact indicated regular involvement in case management most of which are from insurance and private practice. These occupational therapists are further commonly involved in disability management and within the insurance sector are utilising case management to manage disability claims. Occupational therapists in private practice are receiving referrals for case management which appears to be as a constituent of vocational rehabilitation with the goal of facilitating a work re-entry. The results of the study has provided insight into the occupational therapist's role and scope of practice in case management in South Africa. The value of the occupational therapist as case manager in offering core skills and expertise pertaining to the performance component of work was affirmed considering that they are frequently involved in collaboration with the employer in transitioning clients back to work and in the coordination of services to facilitate the client's return to work. These occupational therapists work predominantly within private practice and the insurance sector and are implementing case management as a component of vocational rehabilitation and as an operational element of disability management. These research findings refer to the first objective of the study in that it highlights the match between the services and functions of South African occupational therapists to that of case management functions.

Secondly it was necessary to describe the conceptual models used by occupational therapists in case management. Of the three most common models used viz. Broker case management model, Model of

Human Occupation and Clinical/rehabilitation model, the Broker case management model was indicated as effective by the vast majority of respondents that are also found within the insurance sector which is in keeping with the area of practice. This is indicative of case management with a focus on assessing needs, referrals to services, the coordination and monitoring of on-going treatment rather than direct services of care (Foundation CNH, 2011). Considering that inadequate /delayed rehabilitation has been indicated as a problem that would benefit from case management it appears that an integration of services through multiple strategies which includes case management may provide more postive outcomes (Ross, Curry, Goodwin, 2011). There is support for a more comprehensive approach that includes a combination of other strategies such as vocational rehabilitation and other early intervention return to work programmes (Miller, 2006). As such the conceptual model incorporated is likely to change depending on the services provided and level of care.

The study further identified if standards of practiced are used in case management by this targeted group. A small percentage indicated the necessity of standards of practice to yield positive outcomes in case management. The results provided an overview of the criterion implemented in practice related to the elements of case management i.e. client selection; client assessment, problem identification; planning; implementation; monitoring and termination. In client selection the vast majority of occupational therapists are utilising case management as part of vocational rehabilitation as a standard when poor productivity due to ill health has been assessed as a problem. It is adopted as an intervention strategy when work performance is affected and is further applied to address issues of inadequate or delayed rehabilitation.

The findings on the skills base and knowledge of occupational therapists relevant to case management revealed that although most occupational therapists have 10 or more years of experience as therapists the majority indicated no or little training and academic preparation or have learnt through experience. From the research it is evident that training in case management should be made overt in occupational therapy academic programmes and would be beneficial to the occupational therapist.

Lastly, the practice difficulties and the effectiveness of case management as experienced by occupational therapists were identified. The emergent contributory factors to the effectiveness of case management include adequate support systems; adherence to a collaborative process; client or claimant attributes such as motivational levels and a standard of practice. Conversely inadequate support system; insufficient collaboration, client or claimant attributes and lack of or gaps in the standard emerged as barriers to effective case management.

The aim of the research study has been achieved in that the descriptive data gathered reflects the role of the occupational therapist in case management and the scope of practice which relates predominantly

to the performance component of work and advocating for optimal heath care and rehabilitation. These results were attained from an analysis of the occupational therapists' involvement in case manager functions, service involvement and the standard of practice used. Occupational therapists' are achieving successful outcomes with case management such as favourable work re-entry; transition of the client to the next functional level and maximisation of rehabilitation as well as cost savings which suggests significant contributions to the field that warrants further research. The occupational therapist has been identified as a case manager by their role and functions. Based on the findings several recommendations are made that are outlined below.

Recommendations

- Research is indicated to explore the outcomes with case management to managing incapacity due to ill health and disability in the workplace. Researching the suggested barriers and associated problems that were identified through this study such as inadequate support systems is essential in order to establish strategies to mitigate these limiting factors. Three major barriers that require further investigation are inadequate workplace support, expensive or inaccessible rehabilitation/ health care facilities and poorly developed rehabilitation programmes. In establishing reasons for the lack of employer support further recommendations may emerge such as the need for sensitisation and disability awareness in the workplace to aid in retaining disabled and incapacitated employees at work.
- More occupational therapists in private practice are involved in comprehensive assessments that include functional capacity evaluations rather than rehabilitation yet inadequate and or delayed rehabilitation was indicated as problems identified through assessment that would benefit from case management. This suggests fragmented services and highlights the need to identify if there is integrated care.
- It is recommended that a well-designed standard of practice is vital to ensure continuity of care and more positive outcomes. Considering the use of case management with a focus on occupational performance further research may be necessary to establish clinical pathways and return to work programmes that include this strategy as early intervention and a standard of practice for application in vocational rehabilitation.
- Results highlight the use of case management where there is a history of mental health and behavioural disorders which further emphasises the necessity for a critical evaluation of the multidisciplinary services available for individuals with mental illness for further recommendations on more comprehensive and inclusive service delivery for this population. This will provide a foundation for establishing a clinical pathway for mental and behavioural disorders

that includes case management early in the process and in the community and work setting to allow for continuity of care.

- High sick absenteeism and prolonged incapacity from work was indicated as problems that would benefit from case management. It is therefore suggested that there is a need for early intervention through early identification and referral of clients as well as clinical pathways that includes this service earlier to prevent long term absence from work given the negative effects thereof on health and wellbeing.
- Academic preparation in case management is considered beneficial at an undergraduate and postgraduate level as reflected in the findings. Moreover a skilled and competent case manager emerged as a contributing factor to efficacious case management. Taking into account the occupational therapists' involvement and contributions to the field they are faced with the challenge of expanding their knowledge in case management and in promoting their skills to allow for relevant utilisation of this approach with emphasis on early intervention. In view of their current skills and knowledge, with further training occupational therapists have the potential to deliver quality and cost effective services to their clients. This may include formalised training programmes offered by the Case Manager Association of South Africa and post graduate programmes in vocational rehabilitation that in-cooperates case management. Further research on the current undergraduate academic programme and if case management can be embedded to an extent in the curriculum is recommended.

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ANNEXES

Appendix 1: Questionnaire

The Role of the Occupational Therapist in Case Management in South Africa

Please note that by completing this questionnaire you are consenting to participate in the research study. The data will be treated confidentially.

Section 1

1. 1. How many years of experience do you have as an occupational therapist?	
	Less than 1 year
	1-3 years
	4-6 years
	7-9 years
	10 years or more

1.2. From which University did you attain your undergraduate qualification?	
	University of Pretoria
	University of Witwatersrand
	MEDUNSA, Sefako Makgatho Health Sciences University
	University of Kwazulu Natal
	University of Western Cape Town
	University of Stellenbosch
	University of Free State
	Other (please state)

1.3. Do you have any post graduate qualifications? Please list.

1.4. Do you belong to any regulatory bodies such as OTASA (Occupational Therapy Association of South Africa)? Please list.

1.5. Please indicate your main geographical area of practice	
	Gauteng
	Kwazulu-Natal
	Western Cape
	Northern Cape
	Eastern Cape
	Free State
	Mpumalanga
	Limpopo
	North West Province

1.6. Please indicate your area of practice	
	Hospital
	Rehabilitation hospital
	Private practice
	Workmen's Compensation
	Medico-legal practice
	Insurance

	Health Consulting
	Broker
	Road Accident Fund
	Other (Please specify)

1.7. What are your domains of practice? (Please select all that apply)	
	Physical Health
	Mental Health and Psychiatry
	Paediatrics
	Vocational Rehabilitation
	Medico-legal work
	Disability Management
	Absenteeism and Incapacity Management
	Other (Please specify)

Section 2

2.1. In your experience, are you involved in the following areas of intervention?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Comprehensive evaluation of the client to develop a care plan					
Planning with the client and service provider/referral source to ensure optimisation of treatment					
Facilitating communication and coordination between role players to minimise fragmentation in services					
Educating/empowering the client/ health care team about treatment options/community resources/benefits etc.					
Encourage the appropriate use of health care services/benefits to improve quality of care & maintain cost effectiveness					
Assist in transitioning the client back into the home/ community/work environment					
Advocating for both the client & the payer/referral source to facilitate positive outcomes					

2.2. In your experience, how often are you involved in the following areas of intervention?

	Very Infrequently	Infrequently	Neither Infrequently Nor Frequently	Frequently	Very Frequently
Assess in the acute setting, coordinate & recommend out-patient					
Coordination of assessments and referrals					
Coordination of complicated treatment regimen in rehabilitation					
Coordination & accessing services community support services					

Coordination & accessing services to assist in the management of the client's reintegration in the work environment					
Negotiate the service that best meets the client needs within the benefit program					
Monitoring progress and support from service providers					
Liaison with the relevant role player for rehabilitation or training					
Liaison with the employer to aid in the employee's transition back to work					
Liaison with care providers & coordination of services to facilitate optimum paediatric rehabilitation and reintegration to school					
Work site visits to assess the requirements & needs of the employee and employer					
Advocate for ongoing medical and or rehabilitation interventions					

Section 3

3.1. Which medical conditions below classified using the International Statistical Classification of Diseases would you rate as the top 3 prevailing conditions for which you/your practice receive most referrals? Please select 3.

	ICD 10 Code	**Examples of conditions**
	Certain Infectious and Parasitic Diseases	HIV, tuberculosis, sexually transmitted diseases, other bacterial and viral infections
	Neoplasms	Malignant cancers
	Endocrine, nutritional and metabolic diseases	Thyroid, diabetes, obesity
	Mental and Behavioural disorders	Depression, dementia, schizophrenia, bipolar mood disorder, anxiety disorders
	Diseases of the nervous system	Neurological inflammatory disease of the nervous system, movement disorders, degenerative disease, demyelinating disorders
	Diseases of the circulatory system	Rheumatic fever, hypertension, all heart disease, cerebrovascular accident, pulmonary/heart/circulatory diseases, artery diseases
	Diseases of the musculoskeletal system and connective tissue	Lower back pain, joint pathology, system lupus erethamatosis
	Injury due to external causes	Assault, motor vehicle accidents, pedestrian conveyance related injuries
	Other (please specify)	

3.2. For which services do you receive referrals (please select all that apply)

	Functional capacity evaluations	Ergonomic assessments	
	Medico-legal assessments	Case Management	
	Physical rehabilitation	Paediatric rehabilitation	
	Home visits	Work site visits/job analysis	

	Vocational rehabilitation	Wheelchair assessments and provision	
	Group therapy	Splinting	
	Stress management	Disability management	
	Life skills training	Other (please specify)	

3.3. For which services do you refer clients to other service providers? (Please select all that apply)

	Functional capacity evaluations	Ergonomic assessments	
	Medico-legal assessments	Case Management	
	Physical rehabilitation	Paediatric rehabilitation	
	Home visits	Work site visits/job analysis	
	Vocational rehabilitation	Wheelchair assessments and provision	
	Group therapy	Splinting	
	Stress management	Disability management	
	Life skills training	Other (please specify)	

3.4. In your experience, how often are you involved in the provision of the following services?

	Not at all	Very Infrequently	Infrequently	Frequently	Very Frequently
Physical rehabilitation					
Disability Management					
Case Management					
Mental rehabilitation					
Paediatric rehabilitation					
Vocational rehabilitation					
Medico-legal assessments					
Functional capacity evaluations					

Section 4

The following questions are regarding the use of case management in your practice. Please answer these questions if it pertains to your practice area.

4.1. Standards of Case Management Practice

4.1.1. How often is the following criteria utilised to identify clients that would from case management in your practice area:

	Not at all	Very Infrequently	Infrequently	Frequently	Very Frequently
Poor pain control					
History of mental illness					

Chronic/ long term medical conditions					
Presence of co-morbidities or multiple conditions					
Psychosocial issues & stressors					
High long term costs					
Need for reintegration of person with disability back into the community & for monitoring					
Need for coordination of services to minimise fragmentation & to ensure optimal treatment/rehabilitation					
As part of vocational rehabilitation to ensure that more beneficiaries return to work & to assist employees to regain the capacity to sustain regular employment					
Need for monitoring in the work environment to ensure successful reintegration					
Other (please specify when case management is used in your practice or reasons for referral for case management to your practice)					

4.1.2. The following is utilised/considered for the client assessment in your practice setting:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Physical/functional assessments					
Psychosocial/behavioural assessments					
Functional capacity evaluation					
Work site visit/job analysis					
Reports on independent evaluations from specialists					
Home visit					
Employment information/job description					
Ergonomic assessments					
Family or support system dynamics					
Caregivers capability and availability					
Learning and reskilling capability					
Motivational levels					
Financial/benefits					
Policies and procedures					
Labour legislation					
Other (please specify)					

4.1.3. How often are the following problems identified through assessment that would benefit from case management:

	Not at all	Very Infrequently	Infrequently	Frequently	Very Frequently
Over-utilization or underutilization of services					
Inappropriate discharge or delay from other levels of care					
Inadequate/delayed rehabilitation					
Non-adherence to plan of care					
Lack of insight of current conditions & what constitutes optimal medical intervention/rehabilitation					
Increased severity of conditions/complications					
Compromised client safety e.g. client with medical condition working in safety critical environment					
High cost injuries or illnesses					
High rate of sick absenteeism or protracted incapacity from work					
Difficulties & poor productivity in the workplace due to ill health					
Other (please specify)					

4.1.4. The following is considered in planning case management strategies and goal setting:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Documentation of information gathered through assessment					
Establishment of measurable goals within time frames e.g. access to care & cost-effectiveness of care					
Establishment of measurable goals within time frames e.g. successful return to work/ early return to work					
Documentation of client's support system/ participation e.g. buy in from the Employer					
Other (please specify)					

4.1.5. The following is utilised for ongoing assessment/monitoring and documentation to measure the client's response

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Documentation of ongoing collaboration with all role players					
Verification that the plan of care continues to be appropriate, accepted by client & support system (caregiver or employer), & documented.					
Awareness of circumstances necessitating revisions to plan of care, e.g. changes in the client's medical condition & barriers to care/ reintegration at home or workplace.					
Collaboration with the client & other stakeholders regarding any revisions to the plan of care.					
Other (please specify)					

4.1.6. Case Management services are terminated when:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Goals achieved such as transition to next level of care					
Client no longer eligible for disability benefits					
Discontinuation due to financial barriers					
Other (please specify)					

Section 5

These questions further relate to the use of case management in your practice. Please answer these questions if it pertains to your practice area.

5.1.1. Which models do you utilise in your area of practice?

Mark with (X)	Model (s) used	Description of model
	Model of Creative Participation	The model is used with any diagnosis and severity of illness or trauma. It is recovery and ability focused; it seeks to identify and develop existing ability rather than identify dysfunction or deficit
	Broker case management model	The case manager is usually a coordinator of services focussing on assessing needs, referring to services and coordinating and monitoring on-going services. Mainly office based
	Model of Human Occupation	May be applied in practice with clients experiencing problems in their occupational life

	International Classification of Functioning (ICF)	It is integrated biopsychosocial model of human functioning and disability
	Strengths-based	Direct services are provided ; model focuses on individual strengths, empowerment, the helping relationship is essential, contact in the community, growth, change and consumer choice
	Assertive community treatment	Community-based alternative to the hospital for clients with severe mental illness; a comprehensive approach to case management
	Clinical/rehabilitation	Emphasises the importance of consumer-driven goals, assessing and building concrete skills to attain goals
	Person Environment Occupation Model	Is offered as a tool for therapists to use in client(s)-therapist alliance to enable clients to successfully engage in meaningful occupations in chosen environments.
	Other (Please specify)	

5.1.2. Which model (s) has/have been found to be effective with case management in your practice area? Please list.

5.1.3. Please provide a reason for this:

5.2. In your experience have there been successful outcomes with the use of case management in your practice?	
Yes	
No	

Please provide a reason for this:

5.3. What factors contribute to the effectiveness/successful outcomes in case management?

5.4. What are the barriers to effective case management in your practice?

5.5. How do you evaluate the outcomes & effectiveness of case management in your area of practice?

Section 6

Education and training related to case management

6.1. How many years of experience do you have in case management?	
	Less than 1 year
	1-3 years
	4-6 years
	7-9 years
	10 years or more

6.2. What academic preparation and information have received in case management?

6.3. In your opinion would occupational therapists benefit from training in case management?	
Yes	
No	

6.4. If you have answered Yes, please indicate at what level i.e.	
	Undergraduate
	Post-graduate
	In house training
	Other (please specify)

6.5. Training in which areas of case management would be beneficial?

Thank you for participating in this survey

Appendix 2: Email to Gatekeeper

RE: Masters in OT: Permission to distribute questionnaire

Dear

My name is Kreshnee Govender from the University of KwaZulu Natal. I hereby request permission to conduct my proposed research study at your institution on the Role of the Occupational Therapist in Case Management in South Africa. My research is aimed at identifying the occupational therapists' role and scope of practice in case management in South Africa. Please find attached a letter requesting permission to conduct the research.

Kindly respond to this email with your decision. I will send an email with the information letter and link for the occupational therapists to participate in the study once you have advised regarding your decision to grant permission.

Should you have any questions please contact me on the number below.

I thank you for your time and consideration in this regard.

Kind regards

Kreshnee Govender

Occupational Therapist

Appendix 3: Consent/Letter to Gatekeeper requesting permission to distribute questionnaire

University of KwaZulu-Natal

PRIVATE BAG X54001 DURBAN

4000 SOUTH AFRICA
TELEGRAMS: 'UDWEST'

TELEX: 6-23228

Student: Kreshnee Govender (071 206 8054)
Supervisors: [redacted] (031- 260 8218),
[redacted]

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION: Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001,Durban, 4000, KwaZulu-Natal, SOUTH AFRICA, Tel: 27 31 2604557- Fax: 27 31 2604609, Email: HSSREC@ukzn.ac.za

22 March 2016

Head of Department: Disability Claims, Momentum

Dear Ms E Van Wyk

RE: REQUEST TO CONDUCT RESEARCH AT YOUR INSTITUTION

My name is Kreshnee Govender from the University of KwaZulu Natal. Contact details can be found above.

I hereby request permission to conduct my proposed research study at your institution on the Role of the Occupational Therapist in Case Management in South Africa.

Purpose and aim

The aim of the research study is to identify the occupational therapists' role and scope of practice in case management in South Africa. The reason for the study is that various health professionals fulfill the role as case manager and case management is becoming a common intervention/practice that is

adopted by occupational therapists in the management of long term incapacity and disability but the role of the South African occupational therapist in case management is not defined and their contributions to the field is not well recognised. It is from this perspective that it became necessary to conduct research to identify the role of the South African occupational therapist in case management.

Participation requires that a 30 minute survey is completed that will be distributed electronically by means of SurveyMonkey. The survey needs to be completed by 31 May 2016.

Incentives

There will be no remuneration for participation in this study and no specific personal benefits but the occupational therapists involvement will be valuable in identifying their role in case management and their contributions to the field.

Risks

There are no known risks involved.

Ethical consideration

All information that is collected will be handled in strictest confidentially and the contributions will be anonymous. No individual identifiable information will be released to any other person. All data will be stored securely, with only the researcher and supervisors having access to it.

Results of the study will be made available and may be published in accredited journals.

Participation in the study is voluntary and the occupational therapist will be under no obligation to continue with the process if she/he no longer wishes to do so. The occupational therapist may withdraw from this study at any time if she/he wishes to do so. By completing the survey the occupational therapist will be providing consent to participate in the study.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Science Research Ethics Committee. (Approval number: HSS/0134/016M) Contact details can be found above.

In the event of any problems or concerns/questions you may contact the researcher on 071 206 8054 or the UKZN Humanities and Social Science Research Ethics Committee on 031 260 4557.

My supervisors, [redacted] and [redacted], can be contacted at the Department of Occupational Therapy, University of KwaZulu Natal. Contact details can be found above.

I trust that this letter has provided you with sufficient information as to allow you to grant the researcher permission to conduct the proposed study at your institution.

Please inform me in writing of your decision.

Thank you in advance

Yours sincerely,

Kreshnee Govender
Student
Department of Occupational Therapy
University of KwaZulu-Natal

[redacted]
Supervisor
Department of Occupational Therapy
University of KwaZulu-Natal

Appendix 4: Email to gatekeeper with information letter for distribution to occupational therapists

RE: Study on the Role of the Occupational Therapist in Case Management

Dear Occupational Therapy Colleague

You are hereby invited to participate in a study aimed at identifying the occupational therapists' role and scope of practice in case management in South Africa.

If you are an **HPCSA registered occupational therapist**, please strongly consider participating in the study, which should not take more than 20 minutes to complete. An information sheet is attached providing more information concerning the study.

Click on the link below to complete the questionnaire:

https://www.surveymonkey.com/r/T556NZL

Submission of the survey should occur by **31 May 2016 at the latest** when participation in the study closes. If you have any queries or experience difficulty opening the weblink, please contact the researcher (Kreshnee Govender) on the contact number/email provided at the bottom of this email.

I thank you for your time and consideration to participate.

Kind regards

Kreshnee Govender

Occupational Therapist

071 206 8054

kreshneeg@gmail.com

Appendix 5: Information letter/Invitation to participate

University of KwaZulu-Natal

PRIVATE BAG X54001 DURBAN

4001 SOUTH AFRICA
TELEGRAMS: 'UDWEST'

TELEX: 6-23228

Student: Kreshnee Govender (071 206 8054)

Supervisors: [redacted] (031- 260 8218),

[redacted]

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION: Research Office, Westville Campus, Govan Mbeki Building, Private Bag X 54001,Durban, 4000, KwaZulu-Natal, SOUTH AFRICA, Tel: 27 31 2604557- Fax: 27 31 2604609, Email: HSSREC@ukzn.ac.za

22 March 2016

My name is Kreshnee Govender from the University of KwaZulu Natal. Contact details can be found above.

You are invited to consider participating in a study that involves identifying the Role of the Occupational Therapist in Case Management in South Africa.

Purpose and aim

The aim of the research study is to identify the occupational therapists' role and scope of practice in case management in South Africa. The reason for the study is that various health professionals fulfil the role as case manager and case management is becoming a common intervention/practice that is adopted by occupational therapists in the management of long term incapacity and disability but the role of the South African occupational therapist in case management is not defined and their contributions to the field is not well recognised.

It is from this perspective that it became necessary to conduct research to identify the role of the South African occupational therapist in case management.

Participation requires that a 30 minute survey is completed that will be distributed electronically by means of SurveyMonkey. The survey needs to be completed by 31 May 2016.

Incentives

There will be no remuneration for participation in this study and no specific personal benefits but the occupational therapists involvement will be valuable in identifying their role in case management and their contributions to the field.

Risks

There are no known risks involved.

Ethical consideration

All information that is collected will be handled in strictest confidentially and the contributions will be anonymous. No individual identifiable information will be released to any other person. All data will be stored securely, with only the researcher and supervisors having access to it.

Results of the study will be made available and may be published in accredited journals.

Participation in the study is voluntary and you will be under no obligation to continue with the process if you no longer wish to do so. You may withdraw from this study at any time if you wish to do so. By completing the questionnaire you will be providing consent to participate in the study.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Science Research Ethics Committee. (Approval number: HSS/0134/016M) Contact details can be found above.

In the event of any problems or concerns/questions you may contact the researcher on 071 206 8054 or the UKZN Humanities and Social Science Research Ethics Committee on 031 260 4557.

My supervisors, [redacted] and [redacted], can be contacted at the Department of Occupational Therapy, University of KwaZulu Natal. Contact details can be found above.

Your participation would make an invaluable contribution to the research and I would greatly appreciate your involvement.

Yours sincerely,

Kreshnee Govender
Student
Department of Occupational Therapy
University of KwaZulu-Natal

[redacted]
Supervisor
Department of Occupational Therapy
University of KwaZulu-Natal

Appendix 6: Reminder email of the invitation to participate

RE: Study on the Role of the Occupational Therapist in Case Management

Dear Occupational Therapy Colleague

This is a reminder of the invitation to participate in a study on the Role of the Occupational Therapist in Case Management. Please note that every response is considered an invaluable contribution to the research and I would greatly appreciate your involvement.

Note - If you are unable to open/view the questionnaire due to your system administrator blocking the web link, please notify the researcher accordingly so that I can send the questionnaire in a different format for your attention.

If you are an **HPCSA registered occupational therapist**, please strongly consider participating in the study, which should not take more than 20 minutes to complete. An information sheet is attached providing more information concerning the study.

Click on the link below to complete the questionnaire:

https://www.surveymonkey.com/r/T556NZL

Submission of the survey should occur by **31 May 2016 at the latest** when participation in the study closes. If you have any queries or experience difficulty opening the weblink, please contact the researcher (Kreshnee Govender) on the contact number/email provided at the bottom of this email.

Many thanks

Kind regards

Kreshnee Govender

Occupational Therapist

Appendix 7: Ethical clearance for proposed research study

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

10 February 2016

Ms Kreshnee Govender 9401788
School of Health Sciences
Westville Campus

Dear Ms Govender

Protocol reference number: HSS/0134/016M
Project title: The role of the Occupational Therapist in Case Management in South Africa

Full Approval – Expedited Application

In response to your application received 9 February 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)
Humanities & Social Sciences Research Ethics Committee

/pm

Cc Supervisor: [redacted]
cc Academic Leader Research: Professor Mershen Pillay
School Administrator: Ms P Nzwa

Humanities & Social Sciences Research Ethics Committee
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1910 - 2010
100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses: Edgewood, Howard College, Medical School, Pietermaritzburg, Westville

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