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Title: Implementing routine outcome measurement in an acute mental health unit within rural South Africa.

Abstract:

Introduction: The increasing emphasis on routine outcome measurement has urged healthcare practitioners to demonstrate the impact of their interventions in mental health care settings. This study implemented routine outcome measurement in a rural hospital with an acute mental health unit and measured change in activity participation of mental health care users attending an occupational therapy programme.

Methods: A one group pre/post-test design was used. The Activity Participation Outcome Measure was administered to measure activity participation of 64 mental health care users. Five measurements were done between admission and follow-up after discharge.

Results: Majority of the participants were between the ages of 20 – 29 and mainly diagnosed with substance use disorders. The effect sizes, Cohen's d (> 0.80) and Cohen's r (>0.37) demonstrated a significant positive change (p=0.00) across all APOM domains during hospitalisation. An insignificant change (p> 0.005) was noted in the effect sizes during the follow-up stages with a substantial decline in some of the APOM domains indicating that patients were not well-integrated into their communities.

Conclusion: This study revealed the importance of routine outcome measurement in shaping clinical practice to ensure meaningful intervention and successful integration of MHCUs in their communities.

KEY WORDS:

Routine outcome measurement, activity participation, occupational therapy, mental health, rural context

Introduction:

The overall purpose of mental health services in South Africa is to improve capacity of mental health care users to participate in roles of their choice in their community[1] . To achieve this goal, all stakeholders involved should monitor and evaluate their efforts. Occupational therapy as one of the many stakeholders in mental health services, plays a vital role in facilitating participation in roles and plan and provide quality intervention programmes that will assist MHCUs to have meaningful participation in life in their communities[2 , 3] . Evaluation of outcomes is a critical component in ensuring quality mental health services[4] particularly in rural areas where general access to services is limited[5] . An increase in demand for healthcare accountability and cost containment in mental health calls for healthcare professionals to ensure their clinical practice is based on sound evidence[6] . This places a responsibility on occupational therapists to produce outcomes for the interventions they offer. According to Creek[7:56], an outcome is defined as "An agreed, clearly defined, expected or desired result of intervention". To demonstrate outcomes for interventions they offer, occupational therapists are urged to implement assessment of these outcomes within their routine clinical practice[8] . This process is called Routine Outcome Measurement (ROM). ROM is described as a repeated assessment of a service user's health status over the course of treatment or an intervention[6] . This process entails administering an outcome measurement tool on the users before, during and after to determine the effectiveness of an intervention[9] .

Internationally, there is an urgent call for the implementation of ROM within mental health[10 , 11] . In South Africa, a plan to implement National Health Insurance (NHI) has placed emphasis on the need for the effectiveness of interventions to ensure good quality services and achievement of positive health outcomes[12] . To ensure good quality services, the National Mental Health Policy Framework and Strategic Plan (NMHF) calls for the planning and provision of evidence-based interventions in mental health[1] . According to Drake *et al.*,[13] the credibility of each profession lies within its power to demonstrate evidence for the services offered. This, therefore, highlights ROM as a critical component of evidence-based practice.

For occupational therapists to add value and remain clinically relevant within the transitioning healthcare system, they need to produce evidence of the impact of the services they offer. The use purposeful and meaningful activities in the assessment and treatment of MHCUs with impairments and participation restrictions is central to occupational therapy practice[2] . Within acute mental health settings the focus of OT is on improving participation in activities of daily living[14]. OTs are required to produce evidence of accurate assessment and outcomes of interventions supported through clear and concise documentation[14] . To date, occupational therapists in mental health have difficulty implementing ROM resulting in a lack of evidence to

support their valuable contribution to health systems[15]. The aim of this study was to implement ROM in order to track change in activity participation of the MHCUs attending the occupational therapy programme in an acute mental health unit within a rural hospital in South Africa.

Literature review:

The concept of activity participation in occupational therapy:

Occupational therapy targets activity participation in the population they serve. "Activity participation is described as involvement in a life situation. This process occurs when clients are actively involved in carrying out daily activities they find purposeful and meaningful"[3:629]. Du Toit, cited in Van der Reyden, Casteleijn, Sherwood and de Witt[16:276] defined activity participation as: "Action on the world, originating in one's self, in one's relation to one self and the external world". In their description of the International Classification of Functioning, Disability, and Health (ICF) the World Health Organization (WHO)[17] describes activity and participation as two different constructs. Activity is described as the actual doing of a task and participation is described as an involvement in life situations. These two concepts are a central to human development and lived experience. When the individual encounters problems in these two constructs, it is identified as activity limitation and participation restriction[18].

Law[19], similar to the American Association of Occupational Therapy[3] and du Toit as cited by van der Reyden *et al.*,[16] combined these two constructs and highlighted that it is through the process of activity participation that individuals obtain skills and competencies, find purpose and meaning in life, as well as connect with others and communities. When a person is diagnosed with mental illness their activity participation decreases, as a result they have few social relationships, consequently leading to poor health and well-being[19]. Law[19] alludes that the measurement of participation in occupations contains several dimensions which includes person, environment and occupation, and that the measurement of activity participation, therefore, occurs at the transaction between these domains. Although the concept of activity participation has been defined and accepted as one of the core constructs in occupational therapy, there is a paucity of evidence to indicate the measurement of activity participation in mental health[20].

Routine outcome measurement in mental health: need or luxury?

Mental disorders are the leading cause of years lived with disability[21]. According to the Lancet Global Mental Health Group[22:1241] "30% of the population worldwide has some form of mental disorder, and at least two-thirds of those people receive no treatment". The increasing burden in mental disorders has a substantial impact on health as well as major social, human rights and economic consequences worldwide[23]. Despite a growing burden of mental disorders a gap still exists in the need and provision of quality treatment to this population[9]. In low-

middle- income countries (LMICs) such as South Africa, 76 – 85% of people with mental disorders receive no treatment and a poor quality of care is reported amongst those who receive treatment[24]. In rural SA, a dire state of mental health services is reported where mental health care users are confronted by unsupportive and desert-like mental health services failing to meet their needs[5]. The escalating prevalence of mental disorders along with the reported poor quality of treatment calls for measurements of outcomes to ensure effectiveness of services in mental health[25]. The increasing demand for ensuring maximum quality of care, along with the need for discreet use of resources places pressure on healthcare professionals to ensure their interventions are based on sound evidence[26]. Within mental health, the regular assessment of outcomes and function is critical given the chronic and fluctuating nature of the disorders[27].

Implementation of ROM into clinical practice has been identified as a critical component in the facilitation of recovery in mental disorders where progress is not always identifiable[27]. The benefits and barriers of ROM are highlighted for both the clinician and the service users. ROM helps to guide clinical decision-making by engaging both clinicians and clients in treatment, thus fostering a collaborative approach to care planning and goal setting[28]. According to Hall *et al.*,[29] the implementation of ROM provides a basis for health care practitioners to realistically assess change during the course of the intervention. Clinicians tend to be overly optimistic when estimating clients' outcomes and often fail to predict treatment failure and negative change brought about by intervention offered[30].It is through ROM that clinicians can identify areas for potential development and evaluate whether intervention offered meet the purpose for which it is intended[31].Therefore, when ROM is implemented in clinical practice the risk of deterioration decreases significantly amongst the clients[30].While benefits associated with ROM are clearly outlined, it is surprising that its implementation has been overcome by challenges.

Various challenges have been identified to impact the implementation of ROM into clinical practice. According to Wong *et al.*, [27:279] "balancing the benefits of routine outcome measurement with the 'real world' needs and capacity of mental health services presents numerous challenges". The time-consuming nature of ROM, lack of training on ROM and limited accessibility to context-appropriate outcome measures is one of the leading barriers affecting the implementation of ROM in clinical practice[8, 30, 32, 33]. Time is a critical element to consider when implementing ROM, clinicians may not have enough time to research different outcome measures to identify the most appropriate for their practice. Additionally, those who already implemented ROM in their practice may not have time to reflect on the data and the implication it has on their practice[30]. According to World Federation of Occupational Therapists, [34] mental health is counted amongst the top areas experiencing staff shortages

and estimated that only 21% of OT staff provides mental health services. The shortage and high turn-over of staff in mental health demands the need for ongoing training which limits the motivation for the implementation of ROM[10].

In a resource-constrained area like SA, the cost of outcome measures, access to appropriate technology and ability to use it is of concern[8]. This is complicated further by time constraints brought about by the staff shortages and increase in number of MHCUs seen by practitioners. Additionally, while the SA mental health policies emphasize the need for the implementation of evidence-based strategies in practice, there is no expectation for staff to produce evidence for inteventions particularly in government settings[20]. This, therefore, highlights that while policy outlines the need for ROM, its implementation in to clinical practice is viewed as an additional aspect of service delivery that clinicians can add if they deem it necessary. It is undeniable that the mental health services in SA fails to meet the needs of the mental health care users as evident with the revolving door phenomena currently crippling the mental health services in the country[35]. Given the current state of mental health services where quality of care remains questionable, it is critical that emphasis is placed on ROM to ensure effectiveness of services[9]. It is, therefore, eminent that ROM be treated as a necessity as opposed to a luxury to ensure good quality clinical outcomes in mental health.

Routine outcome measurement in rural context

The Rural Mental Health Campaign, [5] describes the state of mental health services in rural areas as dehumanizing. Poor budget allocation and staff shortages have been outlined as the main factors affecting the quality of mental health services within the rural areas[36]. This can, therefore, be associated with poor implementation of ROM in these areas. Currently, there is a paucity of research related to implementation of ROM in rural areas. Throughout the literature reviewed, there were no studies conducted to evaluate the use of ROM in determining activity participation of clients within a rural context, in SA or other countries[20]. While there is limited evidence of ROM in rural areas it is still important to explore factors with potential influence on the implementation of ROM in this context, as challenges in the healthcare system are often context specific. When outcomes are measured, it is crucial to consider some of the environmental factors that affect outcomes. One of the contextual factors affecting ROM is the type of setting where the occupational therapist works[8].

The imbalance in the provision of mental health services within urban and rural settings remains a concern in SA. Several challenges precede these inequalities in service provision. In SA, rural provinces are poorer with a dire state of mental healthcare and inability to attract and retain staff particularly within the public sector[36]. The imbalance in the distribution of occupational therapists in urban versus rural settings has been identified. According to Ned et

al., [37] majority of occupational therapists in SA are usually found in densely populated and urban settings such as Gauteng(35.5%), Western Cape(26.6%) and KwaZulu- Natal(12.0%). A low number of occupational therapists is reported in predominantly rural provinces like Mpumalanga where only 4.8 % occupational therapists are identified to work in the province[37] . Although not specific to mental health, this imbalance in the distribution of occupational therapists is concerning as a shortage of occupational therapists in mental health is identified as a global concern affecting provision of services[34]. The shortage of occupational therapists means that clinicians working in mental health settings have a high patient load. This has substantial impact on implementation of ROM, as clinicians have limited time to carryout regular assessments to monitor changes in activity participation during and after intervention. Consequently, the effect of occupational therapy services received by the mental health care users in rural areas remains unknown which compromises the quality of services received by these marginalised populations.

The complexity of the mental healthcare pathways in rural SA have been highlighted. These pathways includes formal mental healthcare and informal mental healthcare[38]. Formal mental healthcare related to specialised services provided by health and social welfare while informal mental healthcare relates to non-specialised services provided by traditional healers. Majority of the mental healthcare users in rural areas report no contact with the formal mental health services[38,39]. This is attributed to the fact that in SA traditional beliefs and practices influences the perceptions of mental illness and the management required in this regard[40]. In SA, the perception is that mental illness arises as a result of ancestral spirits and witchcraft. This affects the type of services sought for help, thus affecting the health outcomes[41]. Often the preferred choice of treatment for mental illness tends to be traditional and spiritual health[40]. Although no evidence could be identified from the literature linking health-seeking behaviour to ROM, it was noted during the data collection stages of this study that patients whose families delayed to seek medical help, often took much longer to stabilise, thus affecting their outcomes in therapy[20]. It was established that prior to coming to the hospital or after discharge some families sought help either from a traditional or spiritual[20]. This therefore, emphasises the need for collaborations between the formal and informal mental healthcare and the families of the MHCUs to ensure successful implementation of ROM. It is clear from all the literature reviewed that there are benefits to ROM and that its implementation within occupational therapy has proven to be a mammoth task.

Although the previous research clearly outlines the facilitators and barriers, the evidence to support the implementation of ROM within mental health clinical practice is not well

documented. This study aimed to bridge this gap by producing evidence the changes in activity participation evaluated through implementing ROM in an acute rural mental health unit in SA.

Methodology:

Ethical clearance (M140977) was obtained from the University of the Witwatersrand Human Research Ethics Committee (HREC). Informed written consent was obtained from all participants in this study before the commencement of data collection.

Research Aim

To describe changes in activity participation of MHCUs at Tintswalo Hospital through ROM.

Research design:

This study is a descriptive, longitudinal research with quantitative, quasi-experimental features[42]. The study design included features of ROM as the data collection focused on one group, pre/post-test design[43]. The quantitative features of the research were investigated by measuring the change in activity participation before and after intervention at different intervention stages. The Activity Participation Outcome Measure (APOM) was administered to determine the level of participation before, during and after intervention. As a quasi-experimental design, the participants became their own controls as this study excluded a randomised sample with an experimental and control group. With no randomised sample, the authors did not claim any cause and effect relationship but rather described the changes as measured by the APOM.

Research site

The study took place in the acute mental health unit of Tintswalo Hospital situated in Bushbuckridge sub-district, Mpumalanga Province. Tintswalo Hospital is a small district hospital with a 450 bed capacity. This hospital caters for 16 community clinics[20]. The hospital has the largest mental health unit in Mpumalanga province, with a 54-bed capacity. The estimated bed allocation is set at 34 male beds, 10 female beds and eight beds for forensic MHCUs. The MHCUs admitted to Tintswalo hospital vary from acute to chronic and forensic cases. As the largest unit in Mpumalanga province, the unit caters for a large catchment area, which was expanded by the introduction of forensic services in 2014. On average 45 MHCUs were admitted to the unit per month, with admissions amongst males higher than females. At the time of this study a blanket referral was used where all MHCUs admitted to the unit were required to attend the occupational therapy programme and all referrals were made during the ward rounds. The length of stay varied according to the severity of conditions and availability of beds, this ranged between one to three weeks for acute MHCUs, three to 12 months for long-term and forensic MHCUs. After discharge, MHCUs were required to follow up at

Tintswalo hospital or a nearby clinic depending on the area in which they reside. The fact that this hospital caters for a large catchment area poses a challenge for the follow-up of MHCUs. Some of the MHCUs once discharged had to return to their families outside the province or to the neighbouring country and MHCUs then fail to adhere to their follow-up appointments.

Sample method and selection.

Sixty- four mental health care users who were admitted at Tintswalo hospital during data collection participated in this study. A non-probability sampling method was used to select participants. The main principle of ROM seeks to measure the entire population[20] . Therefore, ROM strictly requires an all-inclusive sampling. In order for the total population to be measured, other factors need to be taken in to consideration this includes availability of staff to assess all MHCUs, assessment method used and whether the ROM is done as a research project[20] . In the latter case, the informed consent is required and may influence the total population size.

In this study, informed consent influenced the sampling of the population as MHCUs who did not consent were excluded from the study. Since the average of admissions at the research site was estimated at 45 MHCUs per month, the sample size was estimated on 45. Due to the longitudinal nature of ROM adjustments were made in this sample size. Loss to follow-up is expected in longitudinal studies as a result a sample of 64 participants was aimed for. The researcher's experience of the low number of patients who adhere to follow-up appointments at research site also influenced the decision to aim for a much larger sample size than 45 patients.

Real-life data was gathered; no manipulation of variables. No exclusions were made based on diagnosis, although common diagnostic groups which included schizophrenia, substance use disorder and mood disorder were established during data collection. Forensic mental health care users were excluded due to the nature and ethical complexity of their cases.

Measurement tool:

The Activity Participation Outcome Measure (APOM) was used for this study. To administer the APOM the researcher attended a one-day training course prior to commencing with the research as required by the developer of the APOM. The APOM was developed and validated within a South African context by Casteleijn[8] with an overall purpose of addressing the outcome measurement gap for occupational therapy services offered with in mental health. The APOM is based on the VdTMoCA, this model consists of nine levels of motivation which corresponds to the action levels[16] . This tool is based on the first six levels of the VdTMoCA and eight domains which consists of 52 items to be scored as per the level of creative ability

of the client. The domains of APOM includes Process skills, Communication and Interaction skills, Life skills, Role performance, Balanced lifestyle, Motivation, Self-esteem and Affect. Each item on the APOM is described in the level of creative ability and the therapist is required to score the client based on the description they identify to best represent their client and that will determine the level of the client. Once the creative ability level is identified, the therapist uses clinical reasoning to make decisions about the phase within the level. These phases includes therapist-directed, patient-directed or transitional phase[16]. Table I presents the scale with the scores used to capture the level as well as the phase of activity participation. The items scores range from 1 to 18, 1 is the lowest activity participation score and 18 being the highest. For every score on the scale there is a specific level as well as the phase within the level for instance the score of 1 to 3 represents the Tone level of creative ability, within this level 1 represents the therapist-directed phase, 2 the patient-directed phase and 3 the transitional phase[16]. The APOM is flexible allowing the therapist to select the domains suitable for the programmes they facilitate. In this study, all eight domains were measured as the occupational programme at Tintswalo hospital addressed all APOM domains. The APOM was administered to capture five sets of data of the MHCUs gathered through intermittent assessments.

Data collection procedures:

The ROM was implemented at Tintswalo hospital and data was collected over six months. The baseline, interim and final assessments were conducted. The APOM was administered on 64 MHCUs attending the occupational therapy programme at Tintswalo hospital. All eight domains were measured, and five sets of data were captured in the form of intermittent assessment and recording the findings on the APOM. The researcher conducted the assessments along with other two occupational therapists working at the mental health unit. Intervention followed where activity participation was facilitated in the occupational therapy programme as per routine. The scoring of the APOM items for each individual MHCU was carried out by the researcher only. The two therapists were responsible for assessing and providing interventions as expected in their usual work. The MHCUs participated in the programme during the week from Tuesday to Friday. The occupational therapy interventions were scheduled for four hours in a day. For inpatients, assessments took place in a group context and individual assessments were carried out for outpatients who came for follow-up. Table II. presents a summary of activities used for the assessment of clients throughout the data collection. For baseline assessment an APOM was administered in the first week of attending the occupational therapy programme. During this stage, participants were involved in four group sessions which included engagement in social skills, work-related tasks, insight

and recreational groups. The groups provided opportunity for the observation of participants' activity participation in different contexts which was then used to establish the baseline level of activity participation. The interim assessment varied based on the length of stay ranging between two to three weeks of hospitalisation. Therefore, for other participants interim APOM assessments were conducted after two weeks, while for others after three weeks of hospitalisation. At this stage the focus of assessments was placed on behaviour and interaction with others, handling of tools, materials and situations, amount of assistance needed and nature of engagement in all activities. For the third assessments an APOM was administered at discharge. This assessment determined the level of change in activity participation from baseline and marked as point of reference for the researcher to evaluate activity participation within the participant's home context in the follow up stages. Two follow-up sessions were scheduled i.e. follow-up one and final assessment. The first follow-up APOM assessment was administered between two to four weeks post discharge depending on the return dates given by the doctor during discharge. The final assessment is the fifth and last assessment in the study. The APOM was administered after one month after the follow-up assessment. For the follow-up assessments participants were required to engage in a 45-minute individual session, where possible collateral information was obtained from the family to enable completion of the APOM. Data for the five assessments was captured on the hard copy first then transferred onto an Excel version of APOM for further analysis.

Data analysis:

Quantitative review of data calls for the condensation of results from several data sheets into a single data sheet[20] . The demographic data is described using descriptive statistics. Pooled effect sizes, a name which is given to a family of indices that measure the magnitude of treatment effect[20,44] , were used to describe trends in changes in activity participation. To determine the internal responsiveness of the study effect sizes of the participants' activity participation were calculate[20]. The standardized differences between all assessments were determined through Cohen's d and Cohen's r effect size statistics. Cohen's d was determined by calculating the difference between the mean baseline scores and follow-up scores, which was then divided by the standard deviation of baseline scores[20,45]. The suggested d values were used as guidelines for interpreting the results using Cohen's d, the value of 0.20 is considered small, 0.5 medium and 0.80 large effect sizes. Cohen's r was determined from a table by converting the d value to a correlation[20,46] .The suggested values for Cohen's r are 0.10 which is considered small, 0.24 medium and 0.37 large effect sizes.

Results:

Demographics

Table III documents the demographics of the sample (n= 64). The demographics of this study revealed that two thirds of participants were males while females formed one third of the sample. Most of the participants between the ages of 20-29 followed by those with an age range of 30-39. Amongst common groups of diagnoses investigated, majority of participants were those diagnosed with substance use disorders followed by those with schizophrenia.

Analysis of the results based on the objectives of the study

Objective 1: The study focused on the description of the level of activity participation of MHCUs before and after occupational therapy intervention. Descriptive analysis was conducted by calculating the mean APOM score of the total samples for each domain at five data collection points namely: baseline, interim, discharge, follow-up and final assessments.

Fig. 1 documents the changes in activity participation from baseline to final assessment. The results indicate improvement in levels of activity participation in all domains, from baseline to discharge. Important to note is the changes in sample size. There were no changes in the sample size for the hospitalization period (baseline, interim and discharge), but loss to follow-up from discharge to the first follow-up was 54, 68% (n=35) MHCUs. Loss to follow-up between the two follow-up points was 62% (n=18).

Objective 2: objective focused on determining the change in activity participation after participation of the participants in occupational therapy during hospitalization and follow up stage. Figure 2 documents Cohen's d and Cohen's r effect sizes during hospitalization, the values in the effect sizes demonstrate significant change in activity participation(n=64). Figure 3 documents Cohen's d and Cohen's r effect sizes between discharge and follow-up 2 assessment periods, these results demonstrate insignificant change with a decline in motivation, while affect and life skills were maintained.

Discussion:

Demographics:

The demographics of the study revealed that majority of the participants were males between the ages of 20-29. Substance use disorder was identified as a leading diagnosis followed by schizophrenia. This is reflective of the circumstances within SA where substance abuse is identified as a major problem affecting rural black communities within the country[47] . In Mpumalanga province, a high rate of substance abuse is reported amongst males between

the ages of 15 – 39[48] . A strong connection between substance abuse and mental health disorders is clearly defined. Substance abuse is identified as a precipitating factor to substance related mental disorders[49] . The prevalence of substance use disorders in the country is estimated at 5.8%[1] . Given the high rates of substance abuse reported it is expected that majority of the participants within the population studied presents with substance use disorders.

The fact that most of the participants were between ages 20 -29 raises a serious concern. This is a critical stage in development as majority in these age group gain entry in to worker roles with the aim of forming and maintaining a productive and self-satisfying career[20,50] . Unemployment rate amongst patients with severe mental disorders like schizophrenia and substance use disorders is estimated between 80 % to 90%[51] . According to Bond and Drake,[52] Schizophrenic diagnosis and psychotic symptoms serve as predictors of low employability amongst this population. This therefore indicates that majority of the participants are highly unlikely to secure employment in the open-labour market[51 , 53] .The issues of unemployment amongst those with MHCUs in rural areas are further compounded by the high rates of unemployment within SA. Mpumalanga province is mostly rural and identified to have second highest rate of unemployment of 43% within the entire country[54] . To ensure that the MHCUs in this context remain productive occupational therapy programmes should incorporate prevocational skill training to ensure productivity as required for this age group[55] .

Description of levels of activity participation before and after occupational therapy intervention:

The APOM mean scores during the hospitalization phase (baseline to discharge) revealed a significant improvement across all APOM domains. Contrary to this, the APOM mean scores from discharge to final follow-up assessment indicated an insignificant change. The improvement noted indicated APOM scores ranging from patient-directed incidentally constructive action (self-differentiation)level of creative ability at baseline (5.75) to transitional constructive explorative action (self- presentation) level of creative ability at discharge phase (9.00). Role performance had the lowest APOM scores while Affect had the highest scores. Based on these results, it can be concluded that the significant change was evident during the hospitalization phase.

The established incidentally constructive action (self-differentiation) level of creative ability at baseline represents the level patients regress to during their acute stage of illness amongst the population at Tintswalo hospital[20] .Similar studies conducted in the UK[56] and at Sterkfontein hospital[57] in South Africa that used the APOM demonstrated overall level of constructive explorative action (self-presentation) at baseline assessments. It is evident from

these findings that the baseline APOM scores at Tintswalo hospital are slightly lower than that of other settings. According to Van der Reyden *et al.* [57] Incidentally constructive action level of creative ability is characterized by aggressive and bizarre or uncontrollable behavior, disorganized thinking and impaired language. Patients on this level are mostly managed in chronic mental health institutions with structured rehabilitation programmes are offered. Tintswalo Hospital, as an acute unit, varies from other settings. This unit caters for a variety of MHCUs, majority of these patients are chronic and often take longer to recover. Therefore, the establishment of this level at baseline is not surprising.

While the study yielded positive results during hospitalization it is very important to note the implications that comes with the discharge of patients on the constructive explorative action level of creative ability. According to VdTMoCA patients on this level require assistance to function within their communities. Although they express desire for independent living patients on this level require support to gain and maintain productive lives[58] . They need supervision to engage in activities of daily living such as caring for self, personal belongings and their immediate surroundings. They are unable to sustain effort when performing tasks which results in decreased productivity and social behavior is often inconsistent as they often disregard the feelings of others[58] . This has serious implications for the families as primary caregivers for this mental health care users. According to Chadda[59] the role as caregiver is a mammoth task for which family members are mostly untrained and unprepared. The responsibility of supporting the mental health care users is a traumatic and burdensome experience which can lead to significant levels of distress[60] .

One of the values and principles outlined by the South African National Mental Health Framework and strategic plan 2013-2020[1] is the provision of maximum support to the families and caregivers of MHCUs, to expand the network of support and care. To achieve this the SA health system needs to develop and strengthen the community mental health services that will offer support to the MHCUs and their families in rural settings. Mapanga et al.,[61] highlights three top strategies for strengthening provision of mental health services within PHC level to support community reintegration of MHCUs. These strategies include empowerment of families, carers and patients, integration of care or collaborative interventions and the use of e-health services. The inclusion of families, carers and patients in the treatment process, self-help interventions, support groups, psychoeducation, counselling and addressing caregiver burden has been associated with good outcomes for the MHCUs[61] . Therefore, it is important that the focus of mental health services shift to incorporating interventions for families and caregivers of people with mental illness particularly in rural areas where mental health services are almost non-existent. This can be done through psychoeducation, psychosocial rehabilitation and provision of home programmes to assist families in structuring the activities

of the mental health care users. The recovery and well-being of the MHCU is linked to that of their caregiver[62] , it is crucial that occupational programmes in mental health incorporate strategies focused specifically on meeting the needs of the families. Successful implementation these strategies will not only improve patient outcomes but also alleviate pressure from the burdened mental health system.

Recovery patterns in activity participation:

The effect sizes revealed improvement in activity participation during hospitalization. This established large values on both Cohen's d and Cohen's r statistics demonstrating the clinical significance of the study during this phase. These results revealed a positive change in activity participation across all domains. The APOM scores and effect sizes noted from discharge to final assessments revealed a slight to insignificant change in activity participation (see fig 3). It is clear from these results that a decline in activity participation started after the first follow-up, thus four to six weeks after discharge. Currently, there is no literature to justify the deterioration in APOM scores following discharge from the hospital. However, this study revealed some deterioration and the following were identified as contributing factors: during follow-up, some participants had relapsed due to poor compliance to medication caused by lack of supervision, others resumed with substance abuse while taking medication. The discharge of patients from a hospital without insight was the main contributing factor to poor compliance. Some MHCUs lacked structure to engage in activities of daily living within their home context as family members viewed these MHCUs as incapable of carrying out such tasks. Efforts were made to develop home programmes aimed at providing structure to enable activity participation in the home context, however, this was unsuccessful as some of these programmes were not monitored by the family.

Despite a substantial decrease in sample size during the follow –up stages the results of this study provide evidence to suggest that while occupational therapy programmes succeed during hospitalization these changes may not be sustainable after discharge. In this study, the changes made during hospitalization were sustained for the first month but not after three months following discharge. The recovery principle outlined in the South African National Mental Health Framework 2013 -2020[1] emphasizes the need for services and delivery to aim at building the mental health care users' ability to return to, sustain and participate in satisfying roles of their choice in their community. The decline in function noted in the follow up stages of this study raises a concern regarding the mental health service delivery in rural SA and the failure of these services in supporting MHCUs to re-integrate within their communities following discharge. This can be highlighted as a contributing factor towards the revolving door phenomenon that is crippling the services in the country.

Effects of loss to follow-up:

Given the longitudinal nature of ROM, a high occurrence of loss to follow-up can be expected[63] . Within this study a loss to follow-up of 54,68% (35 MHCUs) was noted during the first follow-up, a further loss of 62% (18 MHCUs) was noted in the final assessment (Fig 1). The factors associated with loss to follow-up in this study included the discharge of MHCUs when occupational therapists were absent; as a result, follow-up dates were not issued. Additionally, those who were given dates for follow-up did not show up for appointments. Another contribution factor was the referral of MHCUs to the local clinics following discharge. Some of the participants did not have someone to supervise their treatment in Bushbuckridge this meant that they had to relocate to areas closer to their families where treatment could be supervised. Those who came to Bushbuckridge for work purposes or visits had to return home once discharged from the hospital. Migration to other provinces is common within SA and a factor that should investigated when discharge is considered for a MHCU. There should be systems in place aimed at tracking MHCUs to ensure they know where to follow-up when discharged from the hospital [20] .

Although loss to follow-up limits the generalisability of the results it is essential that the implications of this be discussed. Follow-up is viewed as an essential step in client care that is valued by occupational therapists in various practices[20] .It is associated with various benefits such as providing support to the client and their caregivers, monitoring the appropriateness of discharge plans and an opportunity to receive feedback on the efficacy of treatment offered which is critical in prevention of re-admissions[64] . A link between re-admissions to psychiatric hospitals and missing follow-up appointments has been acknowledged[65] .

Failure to adhere to follow-up appointments has been attributed to family situation, limited insight and support from the family[20,66] .An evidence map on successful strategies to strengthen mental health services in primary care settings showed that empowerment of families was one of the top three strategies[61] . Therefore, collaboration with the families is critical in ensuring follow-up and facilitating independent living amongst the patients. Other indicators associated with loss to follow-up include age and diagnosis. In a study conducted by Park *et al.,*[67] they identified that loss to follow-up was common amongst participants who were younger. Given the fact that most participants within this study were younger (ages 20-29) and mostly diagnosed with schizophrenia and substance use disorders it is not surprising that high occurrence of loss to follow-up was apparent. Park *et al.,*[67] indicates that if a loss to follow-up is predictable, efforts should be made to ensure that intervention programs cover this problem. It is, therefore, important that occupational therapists implement strategies within their programs to improve follow-up of patients after discharge.

This study demonstrates the value of implementing ROM in real life clinical situations, valuable practical conclusions were reached even without a control group. In the hospitalization phase of the study, the effect of the occupational therapy programme on the activity participation of MHCUs was revealed[20] .Areas of potential improvement were identified in the programme, this required that activity participation be facilitated to improve areas such as role performance amongst the MHCUs at Tintswalo. Variables such as age, diagnosis and loss to follow-up were identified to influence activity participation amongst the population at Tintswalo hospital. The results in the follow-up stages of the study facilitated exploration of innovative ways to enable continued activity participation amongst the MHCUs within their environmental contexts. Development of home programmes with a focus on the needs of the family and that of the MHCU was identified as a viable option to enable the structuring of activities for the MHCUs in their home context.

This was the first study that establishes effect sizes in activity participation in MHCUs in a rural setting and can therefore be used as a benchmark for acute settings such as Tintswalo hospital.

Limitations of the study:

As a quasi-experimental design, only one-group from the Tintswalo hospital took part in this study. Lack of randomization of the sample in this study limits the generalizability of the results. The substantial decrease in the sample size noted in especially the final assessments (three months after discharge) of this study narrowed the results; therefore, no significant conclusions could be made for patterns of change after discharge.

Conclusion:

The outcomes of this study emphasize the importance of ROM in generating evidence for the effect that OT services have on the activity participation of the MHCUs. The findings described the effect of the OT services during hospitalization. Given the state of the mental health services in the country and the decline in function noted during the follow-up phases of this study, the need to strengthen family interventions is essential. There is an imperative need for mental health services to move towards development and strengthening of community-based rehabilitation to facilitate successful reintegration to the community and offer support to the families of the MHCUs particularly in rural areas where services are limited.

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References:

1. Department of Health. National Mental Health Policy Framework and Strategic Plan 2013 - 2020. 2013 3 August 2020. Retrieved from https://ndoh.dhmis.org/owncloud/index.php/s/R5cmdp0gY4Fa43Z
2. Kohn M, Hitch D, Stagnitti K. Better Access to Mental Health program: influence of mental health occupational therapy. Australian Occupational Therapy Journal. 2012;59(6):437-44. doi: https://doi.org/10.1111/1440-1630.12005
3. American Association of Occupational Therapy. Occupational therapy practice framework: domain and process. The American Journal of Occupational Therapy. 2014;68(sSuppl. 1):S1-S48. doi:http://dx .doi .org/10 .5014/ajot .2014 .682006
4. Lewis G, Killaspy H. Getting the measure of outcomes in clinical practice. Advances in Psychiatric Treatment. 2018;20(3):165-71. doi:10.1192/apt.bp.113.011809
5. Rural Mental Health Campaign Committee. The Rural Mental Health Campaign Report. 2015. Retrieved from https://static.pmg.org.za/170315RURALMENTAL.pdf
6. Carlier I, van Eeden W. Routine Outcome Monitoring in Mental Health Care and Particularly in Addiction Treatment: Evidence-Based Clinical and Research Recommendations. Addiction Research & Therapy. 2017;8(4). doi:10.4172/2155-6105.1000332
7. Creek J. Occupational Therapy defined as a complex intervention. London: College of Occupational Therapists; 2003. 75 p.
8. Casteleijn D, Graham M. Domains for occupational therapy outcomes in mental health practices. South African Journal of Occupational Therapy. 2012;42(1):26-34.
9. Kilbourne AM, Beck K, Spaeth-Rublee B, Ramanuj P, O'Brien RW, Tomoyasu N, et al. Measuring and improving the quality of mental health care: a global perspective. World psychiatry. 2018;17(1):30-8. doi:https://doi.org/10.1002/wps.20482
10. Duncan EA, Murray J. The barriers and facilitators to routine outcome measurement by allied health professionals in practice: a systematic review. BMC Health Services Research. 2012;12(1):1-9.
11. Laver Fawcett A. Routine standardised outcome measurement to evaluate the effectiveness of occupational therapy interventions: essential or optional? Ergoterapeuten. 2014;4:28-37.
12. Department of Health. National Health Insurance for South Africa - Towards universal health coverage. 2017. Retrieved from http://www.health.gov.za/index.php/component/phocadownload/category/383
13. Drake RE, Goldman HH, Leff HS, Lehman AF, Dixon L, Mueser KT, et al. Implementing evidence-based practices in routine mental health service settings. Psychiatric services. 2001;52(2):179-82.
14. Welch A, Forster S. A clinical audit of the outcome of occupational therapy assessment and negotiated patient goals in the acute setting. British Journal of Occupational Therapy. 2003;66(8):363-8.
15. Casteleijn D. The 22nd Vona du Toit Memorial Lecture: Stepping Stones from Input to Outcomes: An Occupational Perspective. South African Journal of Occupational Therapy. 2013;43(1):01-9.
16. Van der Reyden D, Casteleijn D, Sherwood W, De Witt P. The Vona du Toit Model of Creative Ability: Origins, Constructs, Principles and Application in Occupational Therapy. Cape Town: The Vona and Marie du Toit Foundation; 2019.
17. World Health Organization. International Classification of Functioning, Disability and Health. WHO; 2001. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/42407/9241545429.pdf;sequence=1

18. Dijkers MP. Issues in the conceptualization and measurement of participation: an overview. Archives of Physical Medicine and Rehabilitation. 2010;91(9):S5-S16. doi:https://doi.org/10.1016/j.apmr.2009.10.036
19. Law M. Participation in the occupations of everyday life. American Journal of Occupational Therapy. 2002;56(6):640-9. doi:https://doi.org/10.5014/ajot.56.6.640
20. Silaule O. Routine measurement of outcomes for mental health care users attending occupational therapy. Johannesburg: University of the Witwatersrand; 2016. Retrieved from http://hdl.handle.net/10539/23305
21. Meffert SM, Neylan TC, Chambers DA, Verdeli H. Novel implementation research designs for scaling up global mental health care: overcoming translational challenges to address the world's leading cause of disability. International Journal of Mental Health Systems. 2016;10(1):19. doi:10.1186/s13033-016-0049-7
22. Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. The Lancet. 2007;370(9594):1241-52. doi:https://doi.org/10.1016/S0140-6736(07)61242-2
23. Wainberg ML, Scorza P, Shultz JM, Helpman L, Mootz JJ, Johnson KA, et al. Challenges and opportunities in global mental health: A research-to-practice perspective. Current Psychiatry Reports. 2017;19(5). doi: https://0-doi-org.innopac.wits.ac.za/10.1007/s11920-017-0780-z
24. Demyttenaere K, Bruffaerts R, Posada-Villa J, Gasquet I, Kovess V, Lepine JP, et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. Jama. 2004;291(21):2581-90. doi:10.1001/jama.291.21.2581
25. Essock SM, Olfson M, Hogan MF. Current practices for measuring mental health outcomes in the USA: International overview of routine outcome measures in mental health. International Review of Psychiatry. 2015;27(4):296-305. doi:https://doi.org/10.3109/09540261.2015.1014314
26. Bennett S, Bennett JW. The process of evidence-based practice in occupational therapy: Informing clinical decisions. Australian Occupational Therapy Journal. 2000;47(4):171-80. doi:doi/pdf/10.1046/j.1440-1630.2000.00237.x
27. Wong YJ, Rew L, Slaikeu KD. A systematic review of recent research on adolescent religiosity/spirituality and mental health. Issues in Mental Health Nursing. 2006;27(2):161-83. doi:10.1080/01612840500436941 ·
28. Coombs T, Stapley K, Pirkis J. The multiple uses of routine mental health outcome measures in Australia and New Zealand: experiences from the field. Australasian Psychiatry. 2011;19(3):247-53. doi:https://doi.org/10.3109/10398562.2011.562507
29. Hall CL, Moldavsky M, Taylor J, Sayal K, Marriott M, Batty M, et al. Implementation of routine outcome measurement in child and adolescent mental health services in the United Kingdom: a critical perspective. European Child & Adolescent Psychiatry. 2014;23(4):239-42. doi:10.1007/s00787-013-0454-2
30. Boswell JF, Kraus DR, Miller SD, Lambert MJ. Implementing routine outcome monitoring in clinical practice: Benefits, challenges, and solutions. Psychotherapy Research. 2015;25(1):6-19. doi:https://doi.org/10.1080/10503307.2013.817696
31. Garralda M, Yates P, Higginson I. Child and adolescent mental health service use: HoNOSCA as an outcome measure. The British Journal of Psychiatry. 2000;177(1):52-8. doi:https://doi.org/10.1192/bjp.177.1.52
32. Johnston C, Gowers S. Routine outcome measurement: a survey of UK child and adolescent mental health services. Child and Adolescent Mental Health. 2005;10(3):133-9. doi:org/10.1111/j.1475-3588.2005.00357.x
33. Trauer T, Gill L, Pedwell G, Slattery P. Routine outcome measurement in public mental health—what do clinicians think? Australian Health Review. 2006;30(2):144-7.

34. World Federation of Occupational Therapists. WFOT Human Resources Project 2016. 2016. Retrieved from https://www.wfot.org/assets/resources/2016-Occupational-Therapy-Human-Resources-Project-Edited-Alphabetical.pdf

35. South African Human Rights Commission. Report of the National Investigative hearing into the status of mental health care in South Africa, 14 and 15 November 2017. Johannesburg: SAHRC; 2019. Retrieved from https://www.sahrc.org.za/home/21/files/SAHRC%20Mental%20Health%20Report%20Final%2025032019.pdf
36. Vergunst R. From global-to-local: rural mental health in South Africa. Global Health Action. 2018;11(1):1413916. doi:https://doi.org/10.1080/16549716.2017.1413916
37. Ned L, Tiwari R, Buchanan H, Van Niekerk L, Sherry K, Chikte U. Changing demographic trends among South African occupational therapists: 2002 to 2018. Human Resources for Health. 2020;18(1):22. doi:10.1186/s12960-020-0464-3
38. Shai M, Sodi T. Pathways to mental health care by members of a rural community in South Africa. Journal of Psychology in Africa. 2015;25(3):191-4. doi:https://doi.org/10.1080/14330237.2015.1065052
39. Labys CA, Susser E, Burns JK. Psychosis and help-seeking behavior in rural KwaZulu Natal: unearthing local insights. International Journal of Mental Health Systems. 2016;10(1):57. doi:https://doi.org/10.1186/s13033-016-0089-z
40. Van der Hoeven M, Kruger A, Greeff M. Differences in health care seeking behaviour between rural and urban communities in South Africa. International journal for equity in health. 2012;11(1):31. doi:https://doi.org/10.1186/1475-9276-11-31
41. Kometsi MJ, Mkhize NJ, Pillay AL. Mental health literacy: conceptions of mental illness among African residents of Sisonke District in KwaZulu-Natal, South Africa. South African Journal of Psychology. 2019:0081246319891635.
42. De Vos A, Strydom H, Fouche C, Delport C. Research at Grassroots: For the social services and human service professions Pretoria: Van Schaik; 2007.
43. Tomlin G, Borgetto B. Research pyramid: A new evidence-based practice model for occupational therapy. American Journal of Occupational Therapy. 2011;65(2):189-96. doi:org/10.5014/ajot.2011.000828
44. Becker LA. Effect size (ES). 2000. Retrieved from https://www.uv.es/~friasnav/EffectSizeBecker.pdf
45. Husted JA, Cook RJ, Farewell VT, Gladman DD. Methods for assessing responsiveness: a critical review and recommendations. Journal of Clinical Epidemiology. 2000;53(5):459-68. doi:org/10.1016/S0895-4356(99)00206-1
46. Fritz CO, Morris PE, Richler JJ. Effect size estimates: current use, calculations, and interpretation. Journal of Experimental Psychology: General. 2012;141(1):2. doi:org/10.1037/a0024338
47. Oladeinde O, Mabetha D, Twine R, Hove J, Van Der Merwe M, Byass P, et al. Building cooperative learning to address alcohol and other drug abuse in Mpumalanga, South Africa: a participatory action research process. Global Health Action. 2020;13(1):1726722. doi:org/10.1080/16549716.2020.1726722
48. Dada S, Harker Burnhams N, Erasmus J, Lucas W, Parry C, Parry C, et al. Monitoring alcohol, tabacco and other drug abuse treatment admissions in South Africa. Cape Town; 2019. Contract No.: ISBN: 978-1-928340-39-3
49. Mclellan AT. Substance misuse and substance use disorders: why do they matter in healthcare? Transactions of the American Clinical and Climatological Association. 2017;128:112. doi:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5525418/
50. Halfon N, Forrest CB. The emerging theoretical framework of life course health development. In: N. Halfon, C. B. Forrest, R. M. Lerner, Faustman. E, editors. Handbook of life course health-development science. Cham: Springer; 2017.

51. Mueser KT, Deavers F, Penn DL, Cassisi JE. Psychosocial treatments for schizophrenia. Annual Review of Clinical Psychology. 2013;9:465-97. doi:https://doi.org/10.1146/annurev-clinpsy-050212-185620
52. Bond GR, Drake RE. Predictors of competitive employment among patients with schizophrenia. Current Opinion in Psychiatry. 2008;21(4):362-9. doi:10.1097/YCO.0b013e328300eb0e
53. Laudet AB. Rate and predictors of employment among formerly polysubstance dependent urban individuals in recovery. Journal of Addictive Diseases. 2012;31(3):288-302. doi:https://doi.org/10.1080/10550887.2012.694604
54. Stats SA. Quarterly Labour Force Survey: Statistical release P0211. 2019. Retrieved from http://www.statssa.gov.za/publications/P0211/P02111stQuarter2019.pdf
55. Martini LC, Barbosa Neto JB, Petreche B, Fonseca AO, Santos FVd, Magalhães L, et al. Schizophrenia and work: aspects related to job acquisition in a follow-up study. Brazilian Journal of Psychiatry. 2018;40(1):35-40. doi:https://doi.org/10.1590/1516-4446-2016-2128
56. Carter M. Analysis of routine outcome measurement data in mental health occupational therapy: The University of Northampton 2013
57. Brooke C. Selected psychometric properties of the activity participation outcome measure to describe trends in a forensic population of mental health care users Johannesburg: University of the Witwatersrand; 2015. Retrieved from http://hdl.handle.net/10539/18684
58. Casteleijn D, Holsten E. Creative Ability - its emergence and manifestations. In: Van der Reyden D, Casteleijn D, Sherwood W, De Witt P, editors. The Vona du Toit Model of Creative Ability: Origins, Constructs, Principles and Application in Occupational Therapy. Cape Town: The Vona and Maríe du Toit Foundation; 2019.
59. Chadda RK. Caring for the family caregivers of persons with mental illness. Indian Journal of Psychiatry. 2014;56(3):221. doi:10.4103/0019-5545.140616
60. Stomski N, Morrison P. Predictors of burden in Australian mental health caregivers: a cross-sectional survey. Journal of Mental Health. 2019:1-6. doi:https://doi.org/10.1080/09638237.2019.1581340
61. Mapanga W, Casteleijn D, Ramiah C, Odendaal W, Metu Z, Robertson L, et al. Strategies to strengthen the provision of mental health care at the primary care setting: An Evidence Map. PloS One. 2019;14(9):e0222162. doi:org/10.1371/journal.pone.0222162
62. Berk L, Jorm AF, Kelly CM, Dodd S, Berk M. Development of guidelines for caregivers of people with bipolar disorder: a Delphi expert consensus study. Bipolar Disorders. 2011;13(5-6):556-70. doi:https://doi.org/10.1111/j.1399-5618.2011.00942.x
63. Langley J. Issues of loss to follow up in a longitudinal study of traumatic brain injury: University of Tasmania; 2013
64. Vogel A, Paul S. Follow-up: bridging the gap between discharge and home. Occupational Therapy in Health Care. 2001;13(1):61-79. doi:https://doi.org/10.1080/J003v13n01_05
65. El-Mallakh RS, James T, Khan T, Katz M, McGovern B, Nair S, et al. Follow-up after inpatient psychiatric hospitalization with partial control of the system responsiveness variable. Psychiatry. 2004;67(3):294-8.
66. Valencia M, Rascon ML, Juarez F, Escamilla R, Saracco R, Liberman RP. Application in Mexico of psychosocial rehabilitation with schizophrenia patients. Psychiatry: Interpersonal and Biological Processes. 2010;73(3):248-63. doi:https://doi.org/10.1521/psyc.2010.73.3.248
67. Park M, Yamazaki Y, Yonekura Y, Yukawa K, Ishikawa H, Kiuchi T, et al. Predicting complete loss to follow-up after a health-education program: number of absences and face-to-face contact with a researcher. BMC Medical Research Methodology. 2011;11(1):145. doi:https://doi.org/10.1186/1471-2288-11-145

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