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Based on work completed as part of an M OT at the University of Stellenbosch

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Assuring Quality in Clinical Education

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ABSTRACT

The principle outcome of the undergraduate programme, to qualify competent professional practioners, has been shown to be dependent on one-to-one guidance of students during their clinical placements. It is advisable that clinical supervisors, clinicians and students use the same point of departure and approach to clinical teaching and training to ensure that the clinical education of each student meets minimum requirements. A Clinical Work Manual was developed and is being used as a tool to ensure that a uniform approach to the clinical guidance of students is followed in the Occupational Therapy Division at the University of Stellenbosch. Findings of a descriptive study, undertaken to explore the role of the Manual in quality improvement, will be provided in this article.

The focus of the study was to obtain information from all the stakeholders regarding their understanding and frequency of use of the clinical work manual as a tool for the clinical education of students.

The clinical work manual was found to be an appropriate tool in the process of quality improvement for clinical education. The recommendations regarding quality improvement can optimise the use of the clinical work manual by all stakeholders.

Key words: Quality Assurance, Clinical Work Manuals, Undergraduate Clinical Education

Introduction

Quality assurance is necessary to ensure continuous monitoring and evaluation of the standards set to ensure the delivery of quality products and services. Stellenbosch University (SU) places a strong emphasis on the processes and tools necessary for ensuring quality in the education environment as indicated in the Teaching and Learning Policy[1] of the institution. The Division of Occupational Therapy at the University set out to meaningfully implement quality assurance in undergraduate clinical education in order to ensure alignment with the Education Policy of the SU as well as the requirements set out in the Minimum Standards for the Training of Occupational Therapists[2] as outlined by The Professional Board for Occupational Therapy and Medical Orthotics and Prosthetics and Art Therapy. The Minimum Standards require that an occupational therapy student completes 1000 clinical hours in the undergraduate program and it also makes recommendations about the type of clinical areas in which training should take place. One of the outcomes of the occupational therapy programme is to produce professionally competent practitioners. The achievement of this outcome relies, in part, on the face-to-face guidance students receive during their clinical education.

For quality assurance purposes it was advisable that the University appointed clinical supervisors as well as the clinicians involved in student clinical experiences, use the same point of departure and approach to clinical education to ensure that the minimum requirements as set out are met. To ensure quality in the output of the product (students) there needs to be various processes and tools in place. The clinical work manual is a tool that can be used for this purpose.

Over the last four years, a large turn-over of clinical supervisors and clinicians occurred. Feedback received from students during this period indicated that expectations differed among clinical supervisors. This raised some questions regarding the use of the clinical work manual in guiding clinical supervisors and clinicians during the supervision of students and the effect it had on the achievement of the outcomes set for clinical work.

The aim for the study was to determine the stakeholders' understanding regarding the aim of the Clinical Work Manual and the frequency of their use thereof.

Literature Review

The Policy for Learning and Teaching[1] at SU states its vision for the field of teaching as follows: **"A university characterised by quality teaching, by the constant renewal of teaching and learning programmes, and by the creation of effective opportunities for learning/study"**. In order to realise this vision a student-centered approach to learning and teaching is promoted. The Division of Occupational Therapy is responsible for the implementation of the University's approach to learning and teaching within it's teaching activities. This includes the organisation of the learning environment to create sufficient opportunities for learning and assessment and the creation of an accessible learning environment. Opportunities for learning and teaching should be thoroughly planned and the results of this planning should be accessible in the form of module outlines and/or study guides.

The SU Policy for Teaching and Learning Materials[3] defines a module outline as "a document that contains the prescribed minimum information about the module's goal, rationale, outcomes and administrative arrangements. In short, it specifies the contract entered into by the lecturer(s) and students". The study guide is defined as "an aid designed to support and guide students in their learning. It indicates what is to be learned, how this can be learned and how students can ascertain whether they have mastered the learning material. The emphasis, therefore, is on guiding the students' study activities". The policy also states that "in view of the nature and requirements of student-centered learning and teaching, it is desirable that the module outlines should be expanded into study guides that structure the learning opportunities and that stimulate, motivate and direct students' learning activities".

The Clinical Work Manual[4] used in the Division was compiled according to the guidelines set out by the Policy for Teaching and Learning Materials. This Work Manual is made available to third and fourth year students, clinical supervisors and clinicians on an annual basis with the aim of providing a uniform approach to the clinical education of students as follows:

- communicate uniform, generic outcomes and action plans for the clinical guidance of students according to minimum standards;
- create a structure for students' clinical performance and professional conduct, and for the internalisation of ethical values in clinical areas;
- indicate the way in which theoretical knowledge ought to be applied in practice; and
- guide the cost-effective use of time in the various work environments.

The Clinical Work Manual has four sections:

Section A - Contains the requirements, outcomes and action plans with which the student must comply to successfully complete the practical module. The information is used by students to monitor their performance and progress in terms of clinical skills and by clinical supervisors and clinicians as a guideline for the assessment of the students' performance both in the mid-practical (formative) and final (summative) assessment of students.

Section B – Contains practical guidelines which provide a structure to ensure uniform approaches in clinical education. It explains how the various actions involved in clinical work ought to be executed and completed. This section may therefore be used as a reference document. Information relating to ethical and professional conduct is also given in this section.

Section C – Contains the theoretical background and format according to which work should be documented and presented and supplements section B of the manual.

Section D - Sets out a prescribed format according to which third year students, clinical supervisors and clinicians may schedule their own work method and programme.

Braveman[5] proposed four stages for continuous quality improvement (CQI) and these are outlined in *Figure 1*.

The first stage "awareness" is necessary to create readiness

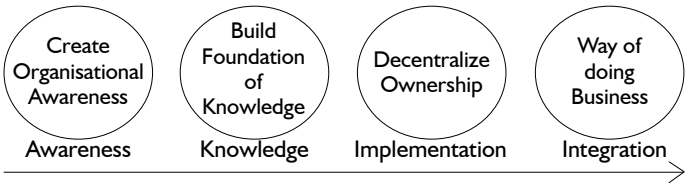

Figure 1: Braveman's stages of continuous quality improvement

for CQI and this is obtained by building awareness of the need to operate differently in order to address current problems regarding effectiveness and ultimately to achieve efficiency. The second stage of "knowledge" implies education and training in CQI of all involved. The third stage "implementation" refers to the decentralisation of ownership for CQI to all levels of an organisation. The fourth stage "integration" refers to CQI becoming a way of doing business everyday. These stages were used as a guide in the construction of the Clinical Work Manual as well as in the analysis of the results, as it was the intention to foster continuous quality improvement of student clinical practice as well as the clinical supervision provided to the students.

Methods

A descriptive study was conducted after obtaining ethical clearance from the SU ethical committee. A saturation sample of all stakeholders involved in clinical placements during 2009 was included in the study, namely: third and fourth year occupational therapy students (n = 63), permanent and part-time clinical supervisors involved in the clinical teaching (n = 27) and clinicians involved in clinical training (n = 27).

Data were gathered by means of a structured questionnaire available in both English and Afrikaans. It contained three types of questions:

1. Open-ended questions formulated to obtain the participants' understanding of the aim of the manual.
2. Questions relating to the frequency with which participants consulted the four respective sections in the manual were constructed using a 4-point Likert scale where 0 = never, 1 = seldom (less than 50% of the time), 2 = often (50-79% of the time), and 3 = always (80% and more often).
3. A 6-point Likert scale was constructed to obtain their opinion regarding the technical aspects of the Clinical Work Manual (where 0 = strongly agree and 5 = strongly disagree). These data are important in ascertaining how user friendly the manual is which could influence the frequency of use.

The instrument was pilot-tested after which questions were refined in terms of clarity and formulation. The content of the questions were not changed.

Descriptive analyses were conducted on the Likert scale questions. Content analyses were conducted on the open-ended questions.

All the participating groups were requested to give written informed consent and they were assured that identifying information would not be made available to anyone who was not directly involved in the study.

Results and Discussion

The was a response rate of 57,15% for the third and fourth year occupational therapy students; (26%) for the permanent and part-

time clinical supervisors; and 14.8% for the clinicians involved in clinical training. The response rate was extremely disappointing particularly the obtained responses from the clinical supervisors and especially the clinicians.

In the open-ended questions participants were asked to state the aims of the Clinical Work Manual based on their reasons for using it. No reference was made to the aims of the Manual as determined by the Division. The following four themes emerged from the content analysis of the responses to the open ended questions as illustrated by the direct quotes following each theme.

Theme 1: Generic outcomes and action plan (outcomes related to the execution of the occupational therapy process e.g. interpretation of a referral, assessment procedure, independent of the clinical area).

A guideline presented by the university to both students and lecturers and therapists in order to outline standards and outcomes with which students have to comply, also helps with programming and scheduling, especially with regards to BOT III clinical work (clinical supervisor 6).
The clinical work manual gives a thorough outline of the expected outcomes for clinical work (BOTIII 3).

Theme 2: Creates a structure for work performance during clinical placement.

Provides an overview of the expectations and tasks that need to be completed by students in the clinical areas; provides guidelines to students, occupational therapist and lecturers on the progression of work, a framework for written work and dealing with the different aspects of clinical work (clinical supervisor 4).
It is a tool to guide students during clinical work, especially regarding written work; it sets a guideline about what needs to be done and submitted every week; the manual should offer solutions to problems or questions as well as a framework for written work (BOT III 13).
To ensure uniformity so that the student, lecturer and therapist know what is expected during clinical work; it is a guideline for everything the student needs to do; it also simplifies it for the student because it outlines how something needs to be done (BOTIII 5).

Theme 3: Use of theoretical knowledge during practice.

Provides guidance to the student on how to assess and treat patient/client effectively and comprehensively by means of guidance with case studies (BOT 4).
It elucidates all aspects that need to be included in a case studies and helps me to view the patient holistically (BOT IV 7).
Source of information on procedures, examples of reports/format of reports, provides outcomes for affiliations (BOT IV 14).

Theme 4: Cost-effective use of time.

To help us plan our time (BOT III 6).
To serve as a guideline according to which we should conduct ourselves during clinical hours, as well as a guideline for the written work that needs to be submitted during the affiliation (BOTIV 6).

The identified themes were found to be perfectly aligned with the Division's intended aims of the manual. Theme 2 (*creates a structure for work performance*) was identified as the main focus of the Clinical Work Manual by all four groups of participants (mentioned four times more than the other three themes). Although the creation of structure (theme two) is an important guideline for student performance and for clinical supervisors and clinicians, it should not be viewed as being more important than the other three themes, e.g. theme 1 which deals with outcomes and action plans, sets the standards and creates the point of departure from which the assessment of work performance should be conducted.

The frequency with which the Clinical Work Manual was consulted by the respective participant groups was also investigated. Participants had to rate this frequency for each of the four main sections in the manual.

Section A: Requirements, outcomes, action plans

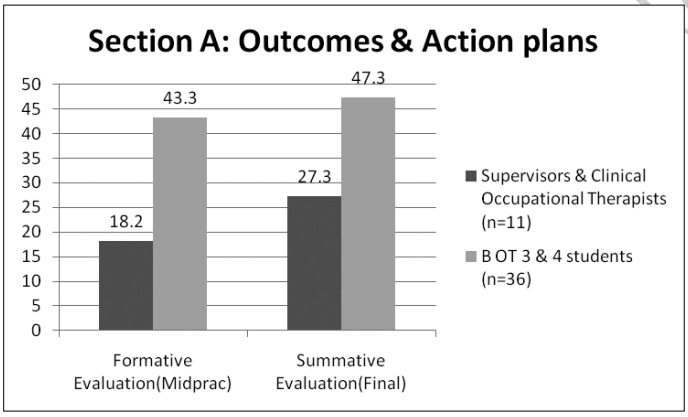

Figure 2: Results: Section A: Outcomes & Action plans

Figure 2 shows that only a small number of clinicians and students consult this section during formative and summative assessments. This is worrying as this section sets the standards for the assessment of student's clinical performance.

Section B: Practical guidelines

The frequency of use of this section varied between 72.72% for clinical supervisors and clinicians, and 67.09% for third and fourth year students, both indicating continuous utilisation of this section for written and practical requirements. The results also supported the second theme (creates a structure for work performance) that was identified as the main purpose of the Clinical Work Manual. Information relating to ethical and professional conduct is also to be found in this section, however, this aspect was not identified specifically by the participants.

Section C: Theoretical background

The results indicated that 95,5% of students used this section to guide them in compiling the written component of their clinical training, which indicates that this is an important inclusion of resources provided to guide the students.

Section D: Work scheduling

The results showed a 100% utilisation of this section by clinical supervisors and a 91,96% by students, therefore confirming the value of this section to guide participants to effectively schedule all their clinical tasks.

Participants' opinion on the technical aspects of the Clinical Work Manual indicated that 82,6% of all the participants felt that the table of contents simplified searching for information in the Manual. 84,7% of all participants indicated that the Clinical Work Manual is easy to read in terms of lay-out and font and 73,9% felt that the language used in the Manual was easy to understand.

The overwhelmingly positive response to the technical aspects of the Manual may be ascribed to the fact that the Manual was sent for review to the Language Centre at SU and adaptations were made regarding the layout and language. However the fact that the response rate was poor may indicate that only those who found the language easy to understand responded to the questionnaire and this may give rise to various possible biases.

Recommendations and Conclusion

This study aimed to determine the frequency of use of the Clinical Work Manual by clinical supervisors and clinicians in order to provide guidance and at the same time, create optimal learning opportunities for students. This study brought the issue of continuous quality improvement to the fore. The four stages of continuous quality improvement as set out on a continuum by Braveman[5], namely "creating awareness", "building a foundation of knowledge", "implementation" and "integration", offers a framework against which the results of this study may be meaningfully interpreted.

The results of the study indicated that clinical supervisors, clinicians and students had mastered the levels of "awareness" and "acquisition of knowledge" as applicable to the four themes and the respective Sections A to D of the Manual. In-service training of staff is presented on a regular and continuous basis throughout the academic year to ensure that awareness and acquisition of knowledge occur.

The 'implementation' stage of continuous quality improvement appeared to be occurring to a certain degree, and ownership by clinical supervisors and clinicians with regard to student guidance, was indicated. However the way in which participants rated the utilisation of Section A – Outcomes and Requirements, indicated that the final stage of 'integration' as described by Braveman had not been reached for this section of the Manual. The outcomes for clinical practice as set out in the Clinical Work Manual were used to verify student performance in less than 30% of all cases, during formative and summative assessment, by the clinical supervisors and clinicians.

The complete process of continuous quality improvement requires that the steps in the quality cycle (plan, do, control and act) should occur sequentially. It is recommended that in the training of clinical supervisors, emphasis should be placed on the purpose and use of generic outcomes for clinical work and how these aspects link to quality improvement of clinical training. The specific learning opportunities available in the respective clinical areas should be identified in collaboration with the clinicians and the outcomes should be aligned with these learning opportunities so that generic outcomes for all students may be realised over the 2 year clinical training period of each student. Overall planning should include the respective rankings of generic outcomes on a grid in order to ensure that these are covered in specific learning opportunities over the 2 year clinical training period.

Continuous quality improvement through the proposed outcomes depends on regular monitoring of processes and tools. The Clinical Work Manual, as a tool for clinical education, appears to be effective as it sets standards for clinical teaching and training which are essential in quality assurance. However it is important to put systems in place to obtain a better response rate for future evaluations as it is recommended that the use of manuals be evaluated on a regular basis as to ascertain the continuous use thereof by all the participating groups. Information obtained can contribute to optimise the use of manuals and contribute to quality assurance of clinical education in various settings.

Acknowledgements

The Fund for Innovation and Research into Learning and Teaching (FIRLT), Stellenbosch University who provided the funding for the study.

Thanks to all the participants who were willing to be part of the study.

Blanche Pretorius for translation of the article.

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The effect of the wearing of weighted vests on the sensory behaviour of learners diagnosed with attention deficit hyperactivity disorder within a school context

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ABSTRACT

Purpose: *Children diagnosed with attention deficit hyperactivity disorder (ADHD) often have sensory processing difficulties. Therefore, they find it difficult to function optimally in the classroom environment. This study investigated the effect that wearing a weighted vest had on their in-seat behaviour, task completion speed and attention-to-task.*

Method: *A longitudinal experimental research design was employed with 30 foundation Phase learners from the School of Achievement; cross-over of treatment was implemented. Data on in-seat behaviour was measured by recording the period of time participants were able to stay seated. Task completion speed was assessed by timing how long participants were able to stay seated during literacy periods. The Conners' Continues Performance Test II was used to measure participants' attention to the task.*

Results: *The Phase group effect for in-seat behaviour and attention-to-task indicated a statistically significant difference when learners wore weighted vests. This was not true for task completion speed.*

Conclusion: *The weighted vests improved the in-seat behaviour and attention to task of learners diagnosed with ADHD in a classroom context.*

Key words: attention deficit hyperactivity disorder (ADHD), weighted vests, sensory modulation, school-based occupational therapy