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OUTCOME BASED EDUCATION: A PERCEPTION FROM PRIVATE HEALTH SCIENCES GRADUATING SCHOLARS IN MALAYSIA

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Abstract:

The transfer of education system from the traditional approach to Outcome Based Education (OBE) had given a significant change in many educational institutions worldwide. In Malaysia, most of the education institutions had implemented OBE in their system and had shown an increment in the students' academic achievement. The reform in the health services that stresses on professionalism had brought the necessity to adopt OBE in allied health education. Thus, the Faculty of Health Sciences in KPJ Healthcare University College (KPJUC) implemented OBE on 2014 and positive result had been showed. There is a notable paucity of studies that focused on the students' perception on the educational system. This study focused on students' perception on OBE system in terms of students' understanding and their academic achievement. The student's perception is the most crucial part as they are the medium of the system. They are the ones who undergo the system thoroughly, and they are the final product of the OBE system. This study used a descriptive method of research wherein the quantitative data were gathered using questionnaires. The participants were 19 graduating students from Bachelor of Medical Imaging (BMI) and Bachelor of Physiotherapy (BPY). The study showed that the perception of students regarding the program outcomes was good and this finding will help to improvise the lacuna in the system and can be the stepping-stone to a better education system in future.

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Keywords: Outcome Based Education (OBE), student's perception, education system, health sciences

Instruction

The tertiary level of education nowadays is the most crucial part in preparing an individual in order to face the real world crisis. The system is not only to create and disseminate knowledge, but also to harness the competence that will enable people to work together and solve problems in an increasingly unpredictable and interconnected world (Fukahori, 2014). Problem-solving is the basic human impulse to actively engage in changing and improving human knowledge in the adaptation to changing global as well as local contexts of relevance and importance (Armstrong, 2012). Individual with higher education level are getting better wage policies and employment as they were expected to be more qualified and better equipped with knowledge and skill. There is gap between graduate attributes not only in their employment readiness but also in their employability skills (Freudenberg et al., 2011).

Outcome-based education (OBE) system is the part of system that prepares those students to be qualified in the field that they will be involved. OBE system is an education approach in which the curriculum or program outcomes are constructed by the outcomes the students should unveil by the end of the course holistically; particularly in professional knowledge, skills, abilities, values and attitudes. Thus, each of the program outcomes of the course has its own reason and purpose. Different understanding on how aims, goals or learning outcomes relates to instructional design difference among educators were the major challenge in implementing the system (Bolander et al. 2006; Morcke and Eika, 2009). Likewise, it is reasonable to assume that when OBE is implemented, educators have different interpretations of such an approach and hence different solutions can be applied (Asma'& Norhayati, 2016).

OBE system opens a new door for the students to understand and learn better as it focuses on the outcomes to be achieved rather than the traditional approach, as different individual has different ways and strategies of learning in different circumstances. In the OBE system, students are given freedom to study the contents of the course in any sort of methods they are comfortable with. In OBE, the major content should firstly by identify, followed by the method of learning them (Borsoto et. al, 2014). The clear, straightforward outcomes provided by OBE form a framework for decision making and guidelines for assessment and program evaluation (McNeil, 2006).

OBE has been adopted in various countries since 1990s, some had become successful and some met with failure, but most of the institutions gain benefits from

OBE. This is because OBE is not only about education; it also focuses on building an individual to operate competently in their future job. However, many of the goals are affective, which means that they concern attitudes, values, feelings and emotions rather than academic achievement. The masters of OBE have gained control of the educational system virtually everywhere in the nation, and have established legislation, implementation plans, schedules and educational goals that are identical from state to state. In short, OBE approach should have a clear definition of the outcomes that students are to achieve, and the efforts that must be made to indicate the priority of each of the outcomes.

In Malaysia, the implementation of OBE at higher learning institutions, both public and private, has been particularly emphasized. As a result, the Ministry of Higher Education Malaysia (MOHE) initiated the Quality Assurance Department at currently known as Malaysia Quality Agency (MQA) in 2007. MQA is responsible for the accreditation of courses offered by the educational institutions. In the OBE system, there are three learning domains, namely, cognitive, psychomotor and affective aspects determined by the MQA. Furthermore, eight domains of learning outcomes are provided and the domains are essential to quality and standards of higher education system in Malaysia (A. Karim et al., 2013).

In 2014, KPJ Healthcare University College (KPJUC) had implemented OBE at Faculty of Health Sciences. The OBE implemented are currently being practiced in the Bachelor of Medical Imaging (BMI) and Bachelor of Physiotherapy (BPY) programs. OBE had changed the focus of education institutions from the syllabus content to the students. OBE is able to serve as a benchmark to measure a success of a university (Mohayidin et al., 2008). This study was spawned from the lack of research of determining the student's perception toward OBE system (Asma & Norhayati, 2016). The student's perception is the most crucial part as they are the medium of the system and relevant for continual quality improvement.

Methodology

The questionnaire was prepared to determine the student's perception on OBE system and to correlate with their academic achievement. The participants of this study are the graduating students, first cohort of 2016 from BMI and BPY in KPJUC who had undergo OBE curricular since 2014. A total of 19 students participated in the study, 13 (12 female and 1 male) students from BMI and six (5 female and 1 male) students from BPY. The questionnaire was adopted from the program learning outcomes shown in Table 1.

The questionnaire consists of; Part A: demographic data including current GPA and CGPA, Part B: questions related to extent of achievement of all program learning outcomes with the scale as follows: 1 - Weak; 2 - Moderate; 3 - Good; 4 - Very Good; 5 - Excellent.

Table 1 : Program Learning Outcomes (PO) of BMI and BPY program

PO1	Demonstrate fundamental knowledge and skill in Physiotherapy & Medical Imaging
PO2	Perform procedures safely and competently
PO3	Demonstrate the ability to seek, adapt and provide solution to address challenges in the field
PO4	Communicate effectively with patients, relatives and other healthcare professionals to provide quality patient care
PO5	Ability to collaborate with other healthcare professionals and perform as an effective team member
PO6	Practice within the ethical framework of the profession and comply with the legal and professional code of conduct in department
PO7	Conduct research under supervision utilizing ICT skills and embracing life-long learning
PO8	Demonstrate awareness and understanding of management, business practice and entrepreneurship
PO9	Demonstrate leadership skills and develop individual growth and responsibility to citizenry.

Results

Respondents were generally satisfied with the program learning outcomes (PO) as shown in Figure 1 and 2. In BPY, PO1 obtained about 60% rating for excellent and very good. Program learning outcome 2 and 3 (PO2 and PO3) obtained non excellent rating but received more than 60% for very good rating. Similarly, PO4, PO5, PO7, PO8 and PO9 obtained above 80% for excellent and very good. Only PO6 obtained 67% rating for excellent and very good and there was 17% for both good and moderate rating.

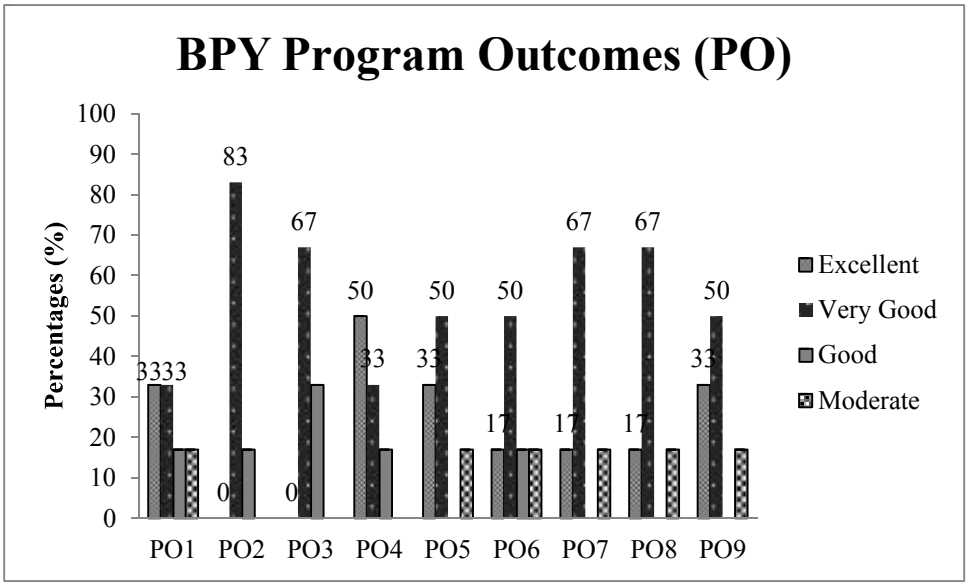

Figure 1: BPY students' perception of their respective achievements based on programme outcomes.

While in BMI, generally most POs received good rating. Program learning outcome 1 to 3 (PO1 to PO3) obtained above 45% for excellent and very good. Program learning outcome 4, 5 and 9 (PO4, PO5 and PO9) obtained more than 65% for excellent and very good rating. On the other hand, PO7 obtained 46% for excellent and very good rating and there was 18% rating for moderate.

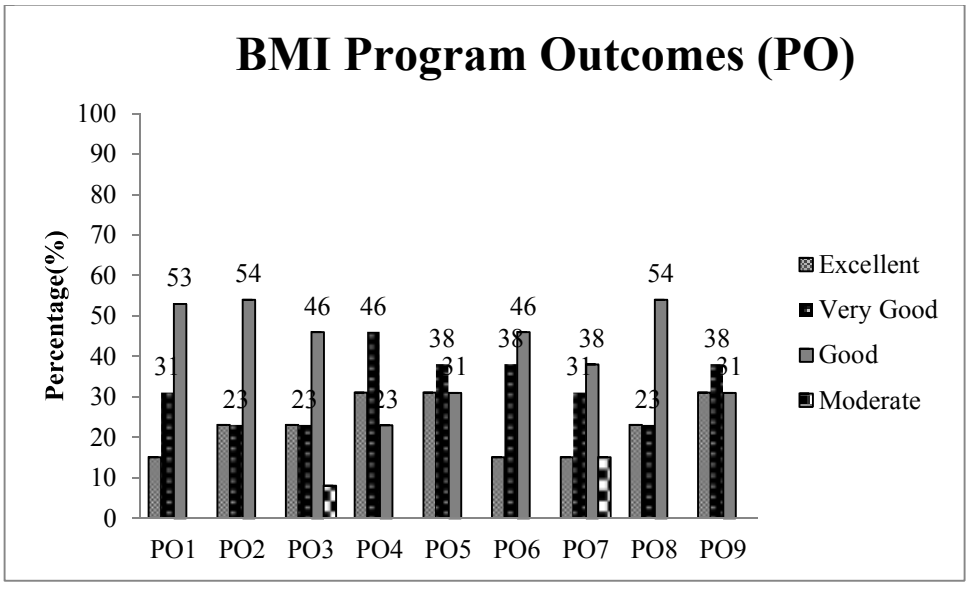

Figure 2: BMI students' perception of their respective achievements based on programme outcomes.

Discussion

In terms of reaction, most of the respondents from BPY reported that OBE did increase their fundamental knowledge and skills in physiotherapy (83% rated excellent, very good and good in PO1). As for BMI, 100% rated good to excellent as OBE provide adequate sources and time throughout the courses. Program learning outcome 2 (PO2) that focuses on competency in performing procedures in safe environment shows high rating from BPY (83% rated very good), while BMI had only 54% of them rated good. In this case, BPY shows a higher rating due to difference in the field of work, where most of the procedures in physiotherapy are by hands-on which is practicable in the university campus ground. While for BMI students, most of the procedures require skills in handling machines effectively but unfortunately only a few machines were available in university campus. Competencies are defined as the "integration of skills, abilities, and knowledge as focused on a particular task" (U.S. Department of Education, 2001, p. 1) and are easily measured (Voorhees, 2001).

Problem solving skill can or should be generally linked to the thinking process and methods of inquiry. Any kind of human problem-solving process is a creative and complex learning process (C. Richard, 2015). The respondents from BPY responded that OBE did improve their ability to adapt and solve problem (100% rated very good to excellent for PO3 from BPY). Only 8% of BMI students rated moderate for PO3. This is maybe due to the complex and challenging problems that evolved in response to development of science and technology.

Respondents also reported that ability to communicate effectively with community and at professional level were improved through simulation and practical session during studies. All respondents (100%) rated good to excellent for PO4. The communication skills were also the most frequently mentioned as being crucial across being employees. There are different forms of communication, such as; verbal communication (speaking), non-verbal or written communication and having empathy to listen to patients, were mentioned as the key aspect of communication skills (McLeish, 2002). This finding implies that 1 year of real on-site practicum session accommodated in the curriculum is effective.

The respondents from BPY may had a little difficulties in collaborating with other healthcare professionals (17% rated moderate), possibly due to different job scope between different departments, while respondents from BMI reacted well for PO5 showing that teamwork is incorporated in their education which was valuable in the clinical practice. According to a study, interactions are required between intra and inter professional groups for the benefit of the patient (Shepperd et al, 2001).

Response toward PO6 which is abided by the ethics and professional code of conduct of the health science profession was good from BMI (100% rated good to excellent) but 17% BPY respondents rated as moderate. The students need to get the input of knowledge in professional practice and reinforcement through visits and simulation sessions (Hancock 2010). Higher moderately rated percentage was received for PO7 from both BPY and BMI (17% and 15% respectively), implying research conduction under supervision utilizing Information and Communications Technology (ICT) skills and embracing life-long learning. This may be due to poor ICT skills and due to the first cohort ever to undergo research course in the program. Conducting research really need a full commitment and much requirements and details which may incur some difficulties to the students.

Entrepreneurship skill is one of the components designed in the program learning outcomes in the faculty of health sciences to inspire entrepreneurship potential in students as they need to design, launch and run a new business plan. Most of the respondents were pleased with PO8 (Only 17% rated moderate from BPY). The result showed that the students may have interest in entrepreneurship and business course. Respondents also responded well to PO9 which is related to leadership skill in order to develop the next generation leader and develop individual growth and responsibility to citizenry.

Overall teaching, learning and assessment strategies are well-thought out for the programs. The cycle of program delivery assessment and continuous improvement ensures quality governance of the program on a term by term basis. Blended learning and aided technology based education also help to improve the teaching-learning approach.

Conclusion

The findings in this study suggest that, in general the students rated a high percentage of good rating in relation of their academic achievement to the program outcomes. Nevertheless, it is recommended that further research be undertaken in the other side of view, which the teacher or educators being assess to explore about their perception on OBE. Further research in this study would also be a great help in order to reach an excellent rating from the students**.**

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