Clinical Capability Self-Appraisal as Indicative of Preparedness For Future Medical Practice. A Graduates' Perspective

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Abstract

Purpose: Pakistan is experiencing a wave of change in the undergraduate medical curriculum. The changes have led to emergence of an outcomes-based curriculum. However the extent to which an outcomes-based curriculum prepares the medical graduates for clinical practice has not been well studied. The aim of the present study was therefore to identify perception of the medical graduates of the extent to which an outcomes-based curriculum in Pakistan has prepared them for hospital practice.

Methods: In September 2015, recent graduates of Islamic International Medical College in Pakistan were asked to fill in the modified Clinical Capability Questionnaire to assess their perception of how the medical school education prepared them for clinical practice during their house job. The survey findings were analyzed using SPSS version 23.

Results: 43 students completed the questionnaire. Cronbach's alpha coefficients for each subscale ranged from 0.83 to 0.96 representing good internal consistency. Majority of the students reported good capability in clinical skills (mean=2.77) but rated themselves lower on procedural skills (mean=1.94), operational management (mean=1.99), and administrative tasks (mean=1.53). For the remaining six domains, students rated an average preparedness for holistic care (mean=3.13), collaboration (mean=3.01), prevention (mean=3.05), and self-directed learning (mean=3.02) while they reported inadequate preparedness in coping skills (mean=2.89) and interpersonal skills (mean=2.77)

Conclusion: Introduction of an outcomes-based curriculum does not guarantee student preparation for clinical practice during house job.

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Keywords: Clinical capability questionnaire; Integrated curriculum; Student preparedness; Undergraduate curriculum

1. Introduction

Medical education has undergone tremendous changes over the last few decades. It is both important and essential for undergraduate medical curricula to draw relevance to medical practice. Inadequacy of undergraduate curricula in preparing future doctors for clinical practice has been reported time and again,[1–4] and has led to emergence of outcomes-based curricula. This performance based approach to education defines the product of medical schools in terms of desired learning outcomes and makes curricular delivery effective,[5] but to the extent these desired learning outcomes are achieved has seldom been studied.[6,7]

Pakistan is also currently experiencing a wave of change in undergraduate medical curriculum. Pakistan Medical and Dental Council (National regulatory and accreditation authority) and National Curriculum Revision committee (NCRC) of Higher Education commission developed a curriculum draft in 2011 and circulated for implementation by the concerned institutions. The curriculum is outcomes-based with emphasis on various learning methodologies, acquisition of skills and early clinical exposure.[8] So far we do not know how relevant it is to the clinical practice in Pakistan, since the extent to which the described outcomes are achieved has not been studied. Although such an evaluation is complex[9] and depends upon multiple indicators, evaluation using a self-administered questionnaire is an acceptable method and has been employed in several previous studies.[10–15]

The aim of this study was to identify the perception of recent graduates of Islamic International Medical College, Pakistan regarding their preparedness for hospital practice in medical schools. This study was a pilot study to further explore the strengths and weaknesses of current Pakistani Medical School Curriculum.

2. Materials and methods

Recent graduates of Islamic International Medical College were asked to complete the Clinical Capability Questionnaire to assess their perception of preparedness for clinical practice during their house job. Since experiential learning occurs at workplace therefore we included only those doctors who had graduated within last three months.[16] This allowed a sample who had enough clinical exposure that could allow them to generate an opinion on the adequacy of their undergraduate curriculum.

The clinical capability questionnaire designed and validated by Hill et al.[6] was used and the domains of "Practical skills and patient management", "holistic care", "preventive medicine", "interpersonal skills", "coping skills", "collaboration" and "self-directed learning" were included. The survey assesses the perception of the graduates regarding their medical school's educational relevance in the above mentioned domains. It was modified to include 47 skills under the domain of "Practical skills and patient management" to make it more specific for students to answer. A similar but not exact modification has also been used by Scicluna et al.[16]

The survey consisted of two parts. The first part assessed the domain of "Practical skills and patient management" with 47 questions under four subscales namely "clinical skills", "procedural skills", "operational management" and "administrative tasks". The skills included under each subscale were similar to those used in the study by Scicluna et al.[16] except the ones categorized as operational management. We included only those skills under this subscale which required use of multiple procedural skills for their execution e.g.; advanced trauma life support management of trauma patients, or setting up of an intravenous (IV) line. Students were asked to rate their perception of their capability to perform a task on a five point scale that ranged from 0 to 4. 0 represented "I did not try the skill during Medical School or Internship", 1 represented "I tried the skill but I cannot perform it", 2 represented "I tried the skill and I can perform it supervised", 3 represented "I tried the skill and I can perform it unsupervised", and 4 represented "I tried the skill and I mastered it". Responses of 3 or 4 were considered as evidence of good capability.

The second part consisted of 25 items for 6 subscales related to the rest of the 6 domains of the clinical capability questionnaire and ranked student responses on a scale of 1–5 where 1 represented 'very inadequately' and 5 'very adequately'. Responses marked 4 or 5 were taken as adequate preparation in medical school.

The survey findings were analyzed using SPSS version 23.

3. Results

43 graduates participated in the study. Cronbach's alpha coefficients for each subscale in both parts ranged from 0.836 to 0.965 indicating good internal consistency of the items in the subscale. The overall mean for the domain of "Practical skills and patient management" was 2.06 (SD=0.82). The majority of students reported good capability in clinical skills (mean=2.77 (SD=0.91)) but rated themselves lower on procedural skills (mean=1.94 (SD=0.92)), operational management (mean=1.99 (SD=0.97)), and administrative tasks (mean=1.53(SD=1.22)). For the remaining 6 domains, student rated an average preparation in the holistic care (mean=3.13 (1.13)), collaboration (mean=3.01 (1.11)), prevention (mean=3.05 (1.23)), and self-directed learning (mean=3.02 (1.28)) while they reported inadequate preparation in coping skills (mean=2.89 (1.26)) and interpersonal skills (mean=2.77 (1.24)).

4. Discussion

Self-evaluations have been used for various purposes in medical education for both formative and summative