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PROFESSIONALISM;

HOW TO MATCH THE GENERAL MEDICAL COUNCIL RECOMMENDATIONS IN UNDERGRADUATE MEDICAL CURRICULUM?

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ABSTRACT... Objectives: This paper describes a practical and valid technique for curriculum audit of professionalism theme of an MBChB programme in a UK medical school. The objective was to match the learning outcomes of professionalism covered in an MBChB course, with the guidelines laid by the GMC in Tomorrows Doctors 2003. The benefit being to determine the issues that needs to be addressed in response to the GMC Tomorrows Doctors 2009. **Study Design:** A qualitative study design. **Period:** 2011. **Setting:** University of Glasgow. **Methods:** To analyse the learning outcomes set out in the curriculum documents. All the statements from the explicit curriculum, and the GMC recommendations in Tomorrow's Doctors (2nd and 3rd Editions) were noted and the individual statements were entered into the NVivo software. A purposive sampling procedure was undertaken to identify "professionalism" in the Year 1 and 2 MBChB curricula and the Tomorrows Doctors, and a comparative content analysis completed. **Results:** The coverage of learning outcomes related to professionalism was between 10-20%, scattered throughout the course in different domains of the MBChB, giving a balanced weight to each outcome. **Conclusion:** The professionalism theme of the MBChB course has covered all the learning outcomes of the Tomorrows Doctors in almost exactly the same frequency as suggested by the GMC according to the course requirements of Year 1 & 2. However, the MBChB course needs to be slightly modified to align it with the new guidelines by the GMC.

Key words: Curriculum matching, content analysis, professionalism.

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INTRODUCTION

The curriculum is dynamic and needs to be regularly updated to address the current healthcare issues of a community.[1] Curriculum matching is necessary to determine whether it is following the guidelines laid by a regulatory body. The process also ensures the quality of the curriculum and can help in identifying any alignment issues that can be addressed.[2] The matching technique requires time and effort. However, the benefits are fundamental and ensure the quality of a curriculum by aligning content with the learning outcomes.[2]

Professionalism is considered as the main theme in the outcome-based curriculum model.[3] The recent emphasis on teaching and evaluation of professionalism for medical students has addressed important concepts in medicines' educational institutions.[4,5] The conventional method of communicating professional beliefs by role modelling still has a value.[6] However, teaching and assessment of explicit outcomes for professionalism is required to prepare students for difficult professional situations.[7] Matching of the learning outcomes is indispensable in aligning the planned curriculum with the delivered curriculum.[8]

The General Medical Council (GMC) provides guidelines to all the medical schools in the UK on the learning outcomes for undergraduate medical curriculum.[9,10] These guidelines are sufficiently broad to accommodate the wide range of institutional cultures and strengths in each school. However, difficulties in implementation may arise due to limits in organisation, and specific expertise. The curriculum matching may be a challenge because of the magnitude of the task and the subjective nature of the outcomes.[11]

This paper describes a technique used to match

the learning outcomes of professionalism in the MBChB curriculum at the University of Glasgow medical school, United Kingdom. The aim is to determine the frequency and "closeness of match" between the course content and the GMC's recommendations.[9,10]

METHODOLOGY

Study type

This was a qualitative study that used content analysis technique. The study was carried out in 2011 at the University of Glasgow, as part of the evolution of the curriculum from Tomorrows Doctors 2nd edition to the 3rd edition.

Sampling

A purposive sampling technique was used to analyse only those outcomes that were related to 'professionalism' theme. The professionalism theme was explicitly taught in Years 1 and 2 during the time of this study. Hence, the sample included four documents, namely, Tomorrows Doctors 2nd edition, Tomorrows Doctors 3rd edition, Year 1 curriculum, and Year 2 curriculum. The information about the learning outcomes of professionalism in the course, were matched with the Tomorrows Doctors 2nd and 3rd edition, to confirm a satisfactory match.

DATA ANALYSIS

Content analysis was used to analyse the documents.[12] There are multiple ways in which content analysis can be used, for example, manifest and latent level analysis, conventional, directed, and summative content analysis.[13,14] The choice of selection of a specific manner depends on the purpose of the study.[13] This study used the manifest summative content analysis, in which the textual material is analysed for occurrence of particular words. This type of content analysis focuses on counting the frequencies and helps in quantification of the data.[14]

The technique was further used to match and compare the content of the documents for similarities and differences. The analysis was done using 'NVivo' software. There are differences in the concept of the unit of analysis in content analysis.[15] We considered our unit of analysis as the parts of the text that were coded.[16] The learning outcomes in Tomorrows Doctors were used as reference codes and then the same codes were identified in the MBChB curriculum to compare, how closely they match with each other. The learning outcomes of professionalism were added as nodes (term used for codes in NVivo software). The text search criteria used for the query was 'AND'. The codes were spread to the 'words', 'surrounding paragraphs', 'surrounding heading level' and 'entire source' using the software options. This analysis gave the frequencies by matching the content of the words used by GMC documents and MBChB. The content of the curriculum was matched with learning outcomes of Tomorrows Doctors 2nd edition for quality assurance.[17] Moreover, the matching with the Tomorrows Doctors 3rd edition was done for quality enhancement of the course, and to give recommendations for the required modifications in the curriculum.[18] We also manually analysed the data for the purpose of triangulation to establish credibility.[15,19]

RESULTS

The content analysis of the GMC Tomorrows Doctors 2nd edition showed that all the learning outcomes have been linked with professionalism.[9] The analysis of the MBChB curriculum showed that the coverage of all the outcomes of professionalism is between 10-20%, scattered throughout the curricular documents in different domains. This gives a balanced coverage to every learning outcome.

The results have been presented in the form of tables for clarity.[20] The frequency of the Tomorrows Doctors learning outcomes covered in Year 1 & 2 MBChB is given in table-I.

Learning outcomes	Frequency covered in Year 1 (%)	Frequency covered in Year 2 (%)
Good clinical care	18.6	18
Maintaining good medical practice	18.5	17.6
Relationships with patients	16.9	16
Working with colleagues	15.4	14.7
Teaching and training	14.8	15
Probity	13.7	13.9
Health	16.8	16.4

Table-I: Frequencies of the Tomorrows Doctors 2nd edition (2003) learning outcome covered in MBChB curriculum in Years 1 & 2.

The Tomorrows Doctors 3rd edition has broadly classified the learning outcomes in three main domains, the doctor as scholar, practitioner, and professional.[10] The two documents of MBChB for Years 1 and 2 were also compared with Tomorrows Doctors 3rd edition for the coverage of the learning outcome 'doctor as a professional'. The GMC has further divided this learning outcome into four specific learning outcomes. The comparison of both curricular documents in relation to Tomorrows Doctors 3rd edition is given in table-II.

Learning outcomes: 'doctor as a professional'	Frequency covered in Year 1 (%)	Frequency covered in Year 2 (%)
The graduate will be able to behave according to ethical and legal principles	14.2	12.6
Reflect, learn and teach others	12.6	13.8
Learn and work effectively within a multi-professional team	no query results returned	no query results returned
Protect patients and improve care	18.1	16

Table 2: Comparison of frequency of the Tomorrows Doctors 3rd edition (2009) learning outcome for professionalism, covered in Years 1 & 2.

DISCUSSION

The GMC published Tomorrows Doctors 2nd edition in 2003 when the medical school revised its curriculum learning outcomes for professionalism according to 2nd edition.[9] The 3rd edition was published in September 2009 in which the learning outcomes of professionalism are stated more clearly than the 2nd edition. The University of Glasgow Medical School was working on revising its curriculum to bring it in accordance with the 3rd edition of Tomorrow's Doctors during the time of this study. The overall coverage for the theme of professionalism was between 10-20% which has also been reported in similar frequency at another university.[18] One of the study from pharmacy education shows the coverage for the theme of professionalism between 23-24 percent.[21]

There was some variation in the analysis calculated by the software and manual interpretation of the documents. The Tomorrows Doctors (2003) outcome on 'health' has been given less coverage as compared to 'good clinical care' and 'maintaining good clinical practice' as shown in Table 1. Although, the learning outcomes for 'health of the students (as doctors)' are few but the manual search showed that they have been discussed in quite a lot of detail in the Year 2 documents, in relation to drug abuse, alcohol and mental disorders due to stressful work and long working hours. [22] One of the reasons for discussing it in detail in Year 2 may be to make it understand contextually. The students go out for their clinical practice in 2nd Year so it is better to make them aware of how to take care of their health and how to cope up with the stressful clinical life. The learning outcomes for these topics can be written and adjusted under the 'self-care' (paragraph 20-b) in the learning outcome 'doctor as professional' of the Tomorrows Doctors (2009).[10]

The manual analysis also showed that some of the specific topics were covered without explicit learning outcomes. The course document of Year 2 discussed the screening tests for different diseases, under the domain of 'right thing to do' but no learning outcomes were mentioned.[22] Due to lack of learning outcomes for the screening tests, the software was unable to analyse it for the results. The screening tests discussed with the students were for the diseases of coronary heart disease, blood pressure, colorectal carcinoma, breast cancer, ovarian cancer, cervical cancer, prostate cancer, diabetes and glaucoma and they

were mainly associated with ethical dilemmas.[22]

Similarly, the MBChB course document for Year 2 discussed the research methods in detail at the end of the document but the learning outcomes for them are not sufficient enough to elaborate it to the students on what they will be taught and what is required from them at the end of the course. This area of course is closely related to the learning outcome of 'maintaining good medical practice' in Tomorrows Doctors (2003).[9]

Likewise, the learning outcomes for the 'family project' in Year 2 need to be modified to align them with the 3rd edition of Tomorrows Doctors.[10,22] The aim of the project is to introduce students to the use of health services in the UK which is relevant to the Tomorrows Doctors outcome of 'good clinical care', in which the students have been asked to familiarize themselves with the environment.[9] The modification is required to adjust learning outcomes such as, managerial and resource adjustment skills, and time management skills. These learning outcomes are mentioned in the Tomorrows Doctors 3rd edition, but it needs to be overtly addressed in the learning outcomes of the MBChB course.[10]

Overall, the MBChB course has covered all the learning outcomes of the Tomorrows Doctors in almost same frequency as advised by the GMC according to the course requirements of Years 1 & 2. The coverage of the first three outcomes of the Tomorrows Doctors (2003) is more than the remaining four outcomes. The reason for this is because the domain and time of the professionalism theme in years 1 & 2 is limited to only 03 hours per week for the achievement of these learning outcomes in this specific medical school. Another reason may be that in the document of Tomorrows Doctors (2003), the emphasis on the first 03 outcomes is more than the last 04 outcomes due to which the MBChB course has also emphasized more on the first 03 outcomes. The MBChB course needs to be rearranged with few changes to align it with the new guidelines by the GMC. The domain for professionalism is already there but most of the content is under other domains. [22, 23] It is not necessary to bring the whole content specifically under the domain of professionalism if it is taught in integrated manner with the other domains but some of the content needs to be more explicitly mentioned in the learning outcomes to make it clear to the tutors and the students for their teaching, learning and assessment.

The limitation of this study is that it only included the curricular documents, that is, the planned curriculum.[8] Further evaluation can now be done to establish confidence in the delivered curriculum and the hidden curriculum.[8] The study paves way for future studies regarding quality assurance for curricular outcomes in other stages of medical training.

CONCLUSIONS

The learning outcomes in any curriculum evolve over time, and this is one mechanism of audit that has a number of advantages. The data-base is permanently available for auditing any aspect of the explicit curriculum, and it may be updated easily as required. This particular exercise enabled the theme of professionalism to be clarified and objectively structured, leading to three main advantages. The outcomes were validated and any gaps or overlaps recognised and adjusted structurally with other content. Teachers were given guidance on what to teach, and were confident about teaching to the outcome. The credibility of the assessments was enhanced due to improved content validity and relevance to students' learning. The Medical School is confident that its curriculum meets the requirements of the GMC, and has evidence to demonstrate it.

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ETHICAL CONSIDERATION

The study has been done on documents that are publically available and it does not involve human beings or animals. It was a non-reactive research

in which the authors critically analysed and compared curricular documents, and therefore ethical approval was not required, though permission was granted by the undergraduate Dean.

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"Winning is not everything,
but wanting to win is."

Vince Lombardi

AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Usman Mahboob	UM did is study as Masters Case Study project at the University of Glasgow, UK. He was involved in the development of idea, sample collection and analysis, methodology development and analysis, and edited all drafts, including the final version.	
2	Prof. Phillip Evans	PE as my supervisor helped him in the development of the idea, identified and contacted the faculty members, helped in the methodology and analysis of the data, contributed and edited all the drafts and approved the final draft. The content of the manuscript has been written in agreement by both of us. This manuscript is not being considered for potential publication elsewhere. In addition, this work has not been published previously.