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Hannemarie Bezuidenhout, Kerneels Nel & Marietjie Nel

Developing national standards for the accreditation of undergraduate medical education and training in South Africa

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In this study, quality assurance and accreditation in higher education were investigated, and standards for the self-evaluation of medical schools and the accreditation of medical education in South Africa were identified. A literature study formed the basis for the investigation, while the Delphi technique was used for the empirical study. A set of 110 standards was compiled, comprising both absolute standards and standards aimed at encouraging development. The standards are suitable for verifying the quality of education, for use as a lever for change and reform and for reference as principles guiding quality assurance. This study will facilitate the attainment of the dual goal of the accreditation process, namely to guarantee the quality of educational offerings to all users and concerned bodies, and to promote the enhancement of academic standards.

Die ontwikkeling van nasionale standaarde vir die akkreditering van voorgraadse mediese onderwys in Suid-Afrika

Gehalteversekering en akkreditering in hoëronderwys is ondersoek en standaarde vir selfevaluering in mediese skole en vir die akkreditering van mediese onderwys in Suid-Afrika is daargestel. 'n Literatuurstudie het die grondslag van die studie gevorm en die Delphi-tegniek is vir die empiriese ondersoek gebruik. 'n Stel van 110 standaarde, bestaande uit absolute standaarde en standaarde wat ontwikkeling ten doel het, is saamgestel. Die standaarde is geskik vir die verifiëring van die gehalte van onderwys, kan gebruik word as 'n instrument om verandering teweeg te bring en kan geld as beginsels wat gehalteversekering rig. Hierdie studie sal die bereiking van die tweeledige doel van akkreditering, naamlik om die gehalte van onderwys te waarborg en om akademiese standaarde uit te bou, fasiliteer.

Mrs M J Bezuidenhout, Profs C J C Nel†, M M Nel, Faculty of Health Sciences, University of the Free State, P O Box 339, Bloemfontein 9300; E-mail:

Throughout the ages, medical practitioners have occupied a special and revered position in society. The competence and capability that place the medical practitioner in this position should be above question. Medical education plays a deciding role in nurturing doctors; medical schools set criteria and standards, and must strive to maintain educational standards of unimpeachable quality.

1. Quality assurance

Quality in medical education is a complex issue. The philosophical mindset underpinning the culture prevailing in a society or institution partly determines the mechanisms that are acceptable for quality assurance and improvement (Suwanwela 1995). In medical education quality assurance goes hand-in-hand with self-regulation and collegial control of academic quality.

A quality assurance mechanism often used in medical education and training is accreditation (Vroeijenstijn 1995), whereby a programme's goals and their attainment are judged in a reflexive process, followed by an external, peer group evaluation to verify the self-assessment in terms of the accrediting body's standards. The process of quality assurance is intended to ensure that future physicians attain adequate standards of education and professional training (Boelen *et al* 1992); in an accreditation process, criteria, standards and procedures should therefore be clearly defined. Clear standards should serve as guidelines for medical schools to maintain and improve the standard of education.

2. Problem statement and research goal

In 2001 the regulatory body of the medical profession and medical education in South Africa, the Health Professions Council of South Africa (HPCSA), replaced its former system of inspection of medical schools with a system of accreditation of medical education programmes. The accreditation procedures were well-founded and scientifically grounded but the system had one major shortcoming — no standards had been determined to serve as the basis for accreditation decisions.

The study reported here aimed to develop a set of national standards for the accreditation of undergraduate medical education and training in South Africa, and thereby to contribute to the quality of medical education (Bezuidenhout 2002).

3. Methods

The methods used in the research entailed a literature survey on quality assurance in higher education, accreditation as a quality assurance mechanism, and the role and importance of standards in quality assurance. Standards for the accreditation of higher education institutions (including medical schools) and programmes were studied.[1] Based on these findings, a draft set of standards for the accreditation of medical education programmes in South Africa was compiled (Bezuidenhout 2002: 76-92). This was followed by an empirical study to test and refine the draft standards. The modified Delphi technique was used in the empirical study to collect ideas and opinions on the draft standards from a group of experts. The Delphi technique provides a user-friendly, rigorous and systematic strategy for collecting and disseminating critical information and reaching consensus (Clayton 1997: 373).

In selecting the panelists for a Delphi exercise, the chief criterion is expertise on the issue. Expert rather than general or informal opinion is sought in the development of educational policies, as decisions of this nature require critical thinking and reasoning. In the study purposive sampling and stratification were used to select a representative sample of experts in medical/higher education who were well-informed of the accreditation process and could express informed, knowledgeable opinions and ideas on standards for the accreditation of medical education. Phenomenologists usually involve between five and eight people in their studies (Leedy 1997: 162) and when purposive sampling and stratification are used, a panel of between five and ten is recommended for a heterogeneous population. The panel in this study had six members, all of whom were involved in accreditation and/or medical education in some way. If the goal of a study is to solve a problem relating to a particular group, the group is more likely to accept

1 Cf CHEA 2000; Cohen 2000; WFME 2001, 2000, 1998; HPCSA 1999; Vroeijenstijn 1995; LCME 1995.

the findings if its members have participated in the research process (Moore 1987: 16). The experts included a former dean of a medical school who is currently involved in the accreditation process of medical education in South Africa and who has participated in an international project defining global standards for medical education; three medical education teachers who are members of the sub-committee for undergraduate medical education of the Health Professions Council and are involved in the accreditation process; a higher education specialist, and a medical teacher with higher education qualifications.

4. Research process

The standards proposed in the draft set were developed at two levels, namely absolute standards and standards aimed at encouraging development in order to enhance quality (cf WFME 2000). Consensus of opinion on the standards was achieved by means of a series of sequential questionnaires, the first comprising the draft standards, and subsequent rounds adapted standards. Respondents were asked to indicate whether each draft standard should be absolute or developmental, or if it should be removed from the list. They could also amend and/or comment on the standards, or propose new standards. The questionnaire for the first round contained 53 absolute standards and 55 standards for development.

Three rounds of the Delphi process were required to reach an acceptable degree of consensus, or in the case of some items before there was sufficient convergence to justify using the results. After each round, the standards were adapted according to the responses, and submitted to the participants.

In Round 1 there was consensus (5/6) on 50 items (standards); 28 were adapted, and seven new standards were proposed. The level of five standards changed from level b (for development) to level a (absolute).

In Round 2 consensus was reached about the standards per se and responses now only contained recommendations regarding linguistic aspects. Two standards were removed due to an overlap between categories.

In Round 3 the respondents indicated agreement with the set of standards.

Table 1: Categories and numbers of absolute (a-level) and developmental (b-level) standards in the draft and final sets

Category		Draft set		Final set	
		a-level	b-level	a-level	b-level
A	Aim, purpose and outcomes	2	2	4	0
B	Curriculum design, content and organisation	9	9	12	8
C	Student and staff resources	6	6	6	6
D	Teaching, training, learning and assessment	10	10	15	7
E	Student progress and achievement	4	5	4	4
F	Student support, development and guidance	4	5	5	4
G	Staff development and training	3	3	4	3
H	Human and physical resources	7	7	8	4
I	Governance and organisation	4	4	6	1
J	Quality assurance and enhancement	4	4	4	4

5. Results

The final set of standards for accreditation (Bezuidenhout 2002: 151-66) contains 110 items. As it not possible to relate them all here, an example of an absolute standard (level a) and a standard for development (level b) are provided (Bezuidenhout 2002: 153):

> B.7a The curriculum is designed to prepare students to have a sound knowledge and understanding of health care, the promotion thereof, and the prevention and management of disease.
>
> B.8b The medical school should ensure that its curriculum makes provision for early patient contact and should structure the different components of clinical skills training and involvement in patient care according to the principles of an integrated curriculum.

6. Categories of standards

The standards were divided into ten categories, with the main aspects addressed in each category being:

6.1 Aim, purpose and outcomes of programme

To satisfy the standards of this category, the school/programme is required to have a clearly defined mission, objectives and outcomes, and to provide proof that it is successful in achieving its stated outcomes.

6.2 Curriculum design, content and organisation

The standards in this category refer to content and the mastery thereof (students' knowledge), sequencing of curriculum components, and integration (horizontal and vertical as well as of theory and practice). Proficiency in skills such as generic, clinical, diagnostic, decision-making, scientific, critical thinking, and research skills are attended to. The graduates delivered by the school must also demonstrate appropriate attitudes and behaviour patterns as well as a sensitivity to the health needs of the country.

6.3 Student and staff resources

In this category the standards have a bearing on student recruitment, selection and admission policies, and the cognitive and affective abilities of students. Staff capabilities and commitment are to be demonstrated. Reference is made to staff's expertise in the disciplines as well as in education. Policies for staff selection, appointment, promotion and dismissal also come under scrutiny.

6.4 Teaching, training, learning and assessment

Expectations with regard to teaching, training, learning and assessment strategies (student-centred, curiosity-driven, and so forth) have to be met in order to attain the standards in this category. The changing role of the lecturer, modern educational theory and the use of technological aids receive attention. The standards demand that the methods for the assessment of student learning be defined and described. Early patient contact and the development of clinical skills are also expected. In addition, community-based education and primary health care are addressed in the standards.

6.5 Student progress and achievement

In this section the standards expect a school to demonstrate that the performance/achievement of students is up to standard; that pass, drop-out and failure rates are monitored and analysed, and that they continuously strive to improve students' standard of achievement.

6.6 Student support, development and guidance

To satisfy the standards in this category, structures for academic, personal and financial support and development must be in place; suitable amenities for students should be available, as should support for students in cases of exposure to health (or other) hazards.

6.7 Staff development and training

The standards set in this category have a bearing on staff's instructional abilities, as well as on incentives to promote medical education as a discipline. The school must also provide proof of staff support and opportunities for staff to undergo personal and academic/professional development.

6.8 Human and physical resources

In this category the standards are aimed at ensuring that the environment is conducive to teaching, training and learning, and that resources are appropriate and sufficient. The resources mentioned include staff, buildings and venues for teaching and clinical training; equipment and supplies; libraries; information technology, and so on.

6.9 Governance and organisation

Leadership, decision-making structures and organisational structures are addressed by the standards in this category.

6.10 Quality assurance and enhancement

In terms of the standards set for this category, a school has to prove that it has a system for quality assurance in place, that internal self-evaluations are conducted and that these are verified by external evaluations.

The areas defined in this study concur with the areas covered in the quality assurance processes of institutions worldwide (cf Bezuidenhout 2002: 53-4) and are representative of the aspects that should come under scrutiny when the quality of an educational programme and the institution offering it are measured.

7. Conclusion

Accreditation is a process with a dual goal, namely assessment and improvement. In a process of accreditation, standards should be used to accredit and re-accredit education and training programmes. These self-same standards should also be employed as guidelines for universities in maintaining and improving quality (JUAA 1996: 7). In the pursuit of quality in education and training, accreditation and institutional self-evaluation are without doubt two of the most important factors promoting academic standards (Strydom & Labuschagné 1989: 291). There are thus two issues at stake here: standards must be defined in order to be used as a measure in accreditation procedures, and accreditation (an assessment process with the assurance of quality and the enhancement of quality as its major goals) will promote the maintenance and improvement of standards (cf Lenn 1995: 2-3). Therefore, from whichever angle standards are viewed, it is of the utmost importance that there should be clarity on what is meant by standards and which standards will apply when assessments are done.

The standards developed in this study are suitable for use in the internal self-evaluation of medical schools. They can also be used in schools' preparation for accreditation, for development and planning, and for the external evaluation process in the accreditation system of the HPCSA.

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