Abstracts

Southern African FAIMER Regional Institute (SAFRI) Poster Day, Cape Town, March 2011 and SA Association of Health Educationalists (SAAHE) Conference, Johannesburg, July 2010

POSSIBLE LIMITING FACTORS FOR UPGRADE OF DENTAL THERAPISTS TO DENTAL SURGEONS IN ZAMBIA

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Context and setting

Zambia has one academic institution offering a 3-year training programme in oral health and the graduates or dental therapists are deployed as primary oral health caregivers. The need for a dental degree training programme in Zambia has been acknowledged by senior officials in the Ministries of Health and Education.

Why this idea was necessary

The upgrade offers the dental therapist new professional and academic horizons for growth while offering wider and more comprehensive dental services.

What was done

A hundred and twenty self-administered questionnaires with open-ended and closed questions were distributed among dental therapists in Zambia. Semi-structured interviews were conducted with key stakeholders in the School of Medicine and the Ministry of Health. The responses in the semi-structured interviews identified the strengths, weaknesses, opportunities and threats to the upgrading of dental therapists to dental surgeons.

Results and impact

There was a 44% response rate with almost equal gender distribution and 62% were married though 24% had spouses not in formal employment. Seventy five per cent of respondents had 0 - 3 dependants and 41% had qualified more than 10 years ago. Just more than half of the respondents (55%) were in the 25 - 34-year age group and 45% had acquired post-qualification additional courses in and outside the health sector.

Upgrade programme

The majority of respondents (66%) preferred a full time programme to improve job opportunities and skills (52%) over 4 years (51%) with morning face-to-face didactic sessions (62%). Sixty one per cent preferred a state grant and/or scholarship as a funding mechanism for the upgrade programme. All respondents confirmed their interest to undertake the upgrade programme despite constraining personal demographics.

Professional activities

The majority of respondents (62%) saw between 11 and 40 patients while 30% saw more than 50 patients on average every week. Similarly, 90% of respondents referred less than 5 cases for further management. Soft-tissue pathoses were the least referred (14%) clinical condition while fractures, tooth impactions and jaw tumours ranged from 24% to 33%. Despite the high number of patients seen on average every week and a national HIV infection rate above 10%; the small number of cases referred with soft-tissue pathoses could be due to limited diagnostic and management skills of the dental therapist.

A large pool of prospective candidates in dental therapists and Bachelor of Human Biology graduates and the lack of funds were the strength and chronic weakness respectively for the programme. However, opportune developments included the signing of memoranda of understanding in a public-private partnership and the presence of building infrastructure at the Copperbelt University. Sited threats to the programme were donor fatigue and withdrawal due to abuse of donor funds. Upgrading dental therapists to dental surgeons would widen their scope of career progression, service delivery and research.

USE OF A SOCIAL NETWORK TO DEVELOP REFLECTIVE AND REASONING SKILLS IN THE CONTEXT OF CLINICAL PRACTICE

Michael Rowe

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Context and setting

Professional practice relies largely on the development of practice knowledge that is often tacit and hidden to the student. However, it can be developed through the sharing of experiences and the guided assistance of a more knowledgeable other. The Theory of Assisted Performance is a teaching approach that can be used to structure learning activities that help students develop complex reasoning skills. The framework suggests modelling, contingency management, feedback, questioning, instruction and cognitive structuring as a means of facilitating deeper understanding.

Why the idea was necessary

Developing an understanding of reasoning and reflection in clinical practice is challenging and often not an explicit part of the formal curriculum. As such, educators may benefit from a more practical approach that can be integrated into teaching practice. However, while reflection and reasoning are acknowledged to be important components of clinical practice, there is little in the formal curriculum to develop these processes. In addition, the use of emerging technologies to enhance communication has received little attention in the context of clinical education, particularly in developing countries.

What was done

The study was conducted within a South African university physiotherapy department. A private social network was created and all third- and fourth-year students registered as users. Students were given an assignment in which they shared their clinical experiences as reflective blog posts, as well as needing to question and comment on each others' work. Using the features of a social network for the assignment created a framework for participant interaction that was directed towards exposing their understanding and ways of thinking about complex ideas and clinical situations. Student narratives were analysed qualitatively using predetermined themes derived from the Theory of Assisted Performance.

Results and impact

Using features of the social network, the author was able to model desirable behaviour and highlight assignment expectations to the students. Appropriate behaviour was encouraged, while inappropriate behaviour (should it have arisen) could have been dealt with immediately. Feedback was given to students regularly throughout the process, rather than just once at the end. Questioning student perceptions, belief systems and responses to situations was used to stimulate further research and reflection. In some cases, explicit instruction was used to guide students through challenging scenarios. Finally, the blog posts helped expose students' thinking and understanding, allowing the author to create individual cognitive structures to build on what they already knew, thereby scaffolding the process.

It seems that emerging online technologies such as social networks can be used to effectively facilitate reflective and reasoning skills among undergraduate students in authentic clinical contexts. However, the teaching and learning activities need to be implemented within a pedagogical framework that allows the facilitator to guide student development. This approach can also be beneficial in exposing and exploring the deeper, hidden understandings of the culture within professions, which students often struggle with. Clinical educators should explore the use of emerging technology to develop clinical and ethical reasoning that are essential components of practice knowledge in the health professions.

MENTOR ATTRIBUTES INFLUENCING POSITIVE LEARNING EXPERIENCES AT CLINICS

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Context

The Longitudinal Clinic Attachment Programme for Students (L-CAS) was introduced in 2008 and links all medical students at the University of Pretoria to one of 52 primary healthcare clinics around Pretoria.

The programme is based on Academic Service Learning (ASL) principles. As part of this experiential learning, students visit their clinics, and with the support of their appointed mentor, practise skills and contribute to service delivery.

Aim/purpose

Evaluation of the mentor programme was necessary, as it has a large number of variables, e.g. level of education, expertise and skills. A great variation in impact on service delivery, interpersonal relationships and learning opportunities at clinics was perceived.

The objectives were to determine students' overall experience of mentors, focusing on the different groups of mentors (university-appointed doctors; university-appointed nurses; clinic managers; clinic staff) and factors contributing to a positive learning experience.

What was done

A survey, comprising of one open-ended and 26 quantitative questions, was developed after focus group interviews and a pilot study with nominal group discussions were held with 7 randomly selected second-year students. Most first-year medical students completed the survey as part of L-CAS activities, using the Umfundi survey tool.

The Statistix programme was used to analyse the data. Qualitative analysis was done of additional comments given by students to understand the quantitative data.

Ethical approval was obtained from the University of Pretoria.

Results and discussion

A total of 227 students participated, of whom 68 were mentored by clinic staff, 41 by clinic managers, 99 by UP-appointed nurses and 19 by UP-appointed doctors.

Mentor type was significantly related to experience of the mentor ($p<0.001$). The experience was perceived as excellent by 68% of students mentored by UP mentor doctors; 59% by UP mentor nurses; 37% by clinic managers and 40% by clinic staff, while 25%, 34% 11% and 11% of students regarded the experience as average or poor.

Mentees' experience of the mentor was significantly associated with the degree of rapport the mentor had with the group, whether the mentor was engaging and interesting, and whether the mentor motivated and listened to them ($p<0.0001$).

Approximately 50% of students agreed that they had learnt a lot from their mentors, while 20% disagreed or strongly disagreed. Of the attributes that relate to academic support the mentor's ability to demonstrate clinical practice was most significantly associated with experience followed by constructive feedback and availability of the mentor to help ($p<0.0001$).

Of the 112 students who perceived the experience with the mentor as excellent, 88% thought there was a clear plan at the beginning of every visit ($p<0.0001$). Mentor assistance with language difficulties was also significantly associated with positive experience ($p<0.0001$).

Conclusion

Positive learning experiences are strongly associated with personal and relational attributes of mentors, as well as feedback and academic support given to students.

From the results of this study a mentor support programme will be developed, aiming to provide every student with an equally standardised learning experience of good quality.

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