SURMEPI

Stellenbosch University Rural Medical Education Partnership Initiative

The young doctor's opinion on Evidence-based Health Care (EBHC) in Stellenbosch University's medical curriculum

Rohwer A[1], Young T[1]

[1]Centre for Evidence-based Health Care, Stellenbosch University

Survey working group: Dr Bart Willems, Ms Anke Rohwer, Prof Taryn Young, Prof Lilian Dudley, Dr Fidele Mukinda, Dr Neil Cameron, Prof Shaheen Mehtar, Dr Frederick Marais, Dr Angela Dramowski

Background

Stellenbosch University Rural Medical Educational Partnership Initiative (SURMEPI) Evidence-based Health Care (EBHC) sub project focuses on the development, implementation and evaluation of innovative EBHC medical education models to enhance EBHC knowledge and skills at an undergraduate level.

To strengthen the MB,ChB curriculum, a situational analysis of the current approach and level of EBHC teaching was needed. This consisted of a document review, a survey of recent graduates and interviews with the lecturers. Results of the document review indicated that there is fragmented EBHC teaching concentrated in the first and the last phase of the MB,ChB programme. This survey is the second step of the situational analysis and aimed to gather perspectives of recently qualified doctors regarding the appropriateness of EBHC teaching throughout their undergraduate education.

Methods

We identified key and enabling EBHC competencies (Figure 1) and designed an electronic questionnaire, comprising both quantitative and qualitative questions. We obtained email addresses of recent graduates, set up the survey using SUN Surveys software and invited recent graduates to participate by sending bi-weekly emails. A financial incentive was added after our response rate was lower than expected.

Quantitative data was analysed using SPSS statistical software. Qualitative data was managed and coded with the help of Atlas.ti software. Codes were grouped into emerging themes for each question. Ethics approval was obtained from the SU Ethics Committee (S11/10/004).

Figure 1: Enabling and key EBHC competencies

Results

Three hundred and seventy five (38%) responded. The most common responder graduated in 2005 (18.5%) followed by 2006 (17.4%) and 2010 (15.0%). Most of the participants were medical officers, working in government or public hospitals, followed by registrars, internship, community service and general practitioners.

Most recent graduates agreed that it was important to learn EBHC at undergraduate level and that EBHC teaching at SU was adequate to prepare them for practicing EBHC in the South African Health system. They also felt that EBHC competencies were covered to a basic or adequate extent and few thought it was covered comprehensively (Table 1).

However, in contrast to rating EBHC teaching as adequate, responses to the open-ended questions showed that newly qualified doctors found that they lacked EBHC skills. They also felt that EBHC teaching should be integrated into clinical rotations, making use of relevant examples in different disciplines. They recommended that interactive teaching methods, as well as online learning platforms and social media could be used.

"Evaluating a study, was maybe too basic - it was a difficult topic to understand - maybe more time should be spent on it"

"EBHC should be part of every block of teaching."

Access to information when working in the clinical field emerged as the most important challenge when practicing EBHC. Time constraints, work-overload, lack of EBHC skills, lack of self-motivation, difficulty of applying evidence in practice and the work environment were also mentioned as being potential barriers to practicing EBHC (Figure 2).

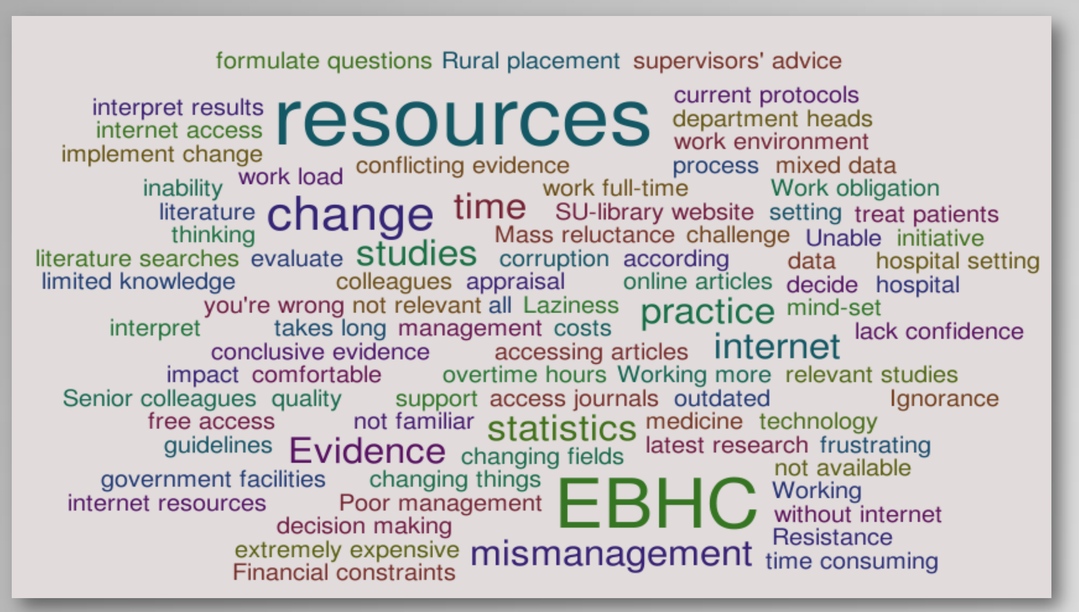

Figure 2: Wordcloud showing keywords of main challenges experienced when practicing EBHC in the clinical field

Discussion

Quantitative and qualitative results regarding EBHC teaching within the medical curriculum were contradictory. Lack of EBHC knowledge and skills was a theme that emerged strongly, leading us to conclude that current EBHC teaching at SU is actually less than adequate. Recommendations by respondents to integrate EBHC teaching into clinical rotations and to use more interactive teaching methods, resonates with international literature.

Recently graduated doctors experience numerous challenges when applying EBHC principles in the clinical field. Inadequate access to medical literature appears to be the biggest barrier. Challenges caused due to external factors are difficult to influence, although sound EBHC knowledge and skills could help overcome some of these.

Conclusion

Our results echo the results of the document review. Although there is evidence of EBHC teaching at undergraduate level, graduates feel that they are not well equipped to practice EBHC once they graduate. There is a need to enhance EBHC teaching at an undergraduate level by integrating it into a variety of disciplines. SU should consider granting their alumni access to their online library resources.

To what extent were the following topics on EBHC covered in the SU MB, ChB curriculum?	Not at all n (%)	Inadequate n (%)	Basic n (%)	Adequate n (%)	Comprehensive n (%)	Total n (%)
Identifying a personal gap in knowledge	11 (5.0)	30 (13.5)	87 (39.2)	88 (39.6)	6 (2.7)	222 (100)
Formulating an answerable research question using the PICO process	16 (7.2)	40 (18.1)	87 (39.4)	68 (30.8)	10 (4.5)	221 (100)
Developing a search strategy based on the PICO question	14 (6.4)	41 (18.7)	77 (35.2)	74 (33.8)	13 (5.9)	219 (100)
Doing a thorough literature search related to a question you have	3 (1.4)	35 (15.8)	67 (30.3)	91 (41.2)	25 (11.3)	221 (100)
Distinguishing between different types of studies	1(0.5)	22 (10.0)	62 (28.1)	97 (43.9)	39 (17.6)	221(100)
Identifying study designs relevant to a question	1 (0.5)	29 (13.2)	73 (33.3)	87 (39.7)	29 (13.2)	219 (100)
Critically appraising the quality of different study designs	1 (0.5)	36 (16.3)	76 (34.4)	90 (40.7)	18 (8.1)	221 (100)
Interpreting the results of studies	2 (0.9)	32 (14.5)	86 (38.9)	82 (37.1)	19 (8.6)	221 (100)
Applying the findings to your clinical setting by considering the evidence, your own clinical experience and individual patients	2 (0.9)	28 (12.7)	76 (34.4)	96 (43.4)	19 (8.6)	221 (100)
Evaluating the process of EBHC on an on-going basis	1 (0.5)	38 (17.2)	100 (45.2)	72 (32.6)	10 (4.5)	221

Table 1: EBHC competencies in SU MB,ChB curriculum

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Centre for Evidence-based Health Care, Faculty of Medicine and Health Sciences, Stellenbosch University, South Africa www.sun.ac.za/cebhc email: cebhc@sun.ac.za Tel: +27-21-9389886 Fax: +27-21-9389734