Original Research Paper

Competence in Breaking Bad news tasks: A curriculum review of teaching and assessment at Moi Teaching and Referral Hospital Eldoret Kenya.

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Abstract

Purpose: The objectives of this study was to determine the adequacy of the medical training curriculum content and methodologies utilized in training doctors in breaking bad news tasks at MTRH.

Methods: A mixed methods approach used to collect data. Qualitative data, focus group discussions and in-depth interviews; quantitative data; resident's perception of the adequacy of the curriculum using a questionnaire. Study participants were postgraduate doctors and lecturers of communication skills. Data was collected using questionnaires and analysed in SPSS version 22, descriptive statistics and inferential statistics utilized in reporting the data. Qualitative data was analysed and presented thematically. A p-value of <_ 0.5 was set as significant for all tests.

Results: Curriculum content and structure; 33% adequacy, teaching methodologies; 28.5% adequacy, Residents perception of various aspects of curriculum: helical or spiral with competence levels; n=70 (87.5%) No, 12.5% (10) yes, theoretical basis of communication skills covered n=46 (57.5%) No, 34 (42.5%) yes, breaking bad news training using task approach with task process n=51 (63.5%) No, 29 (36.25%) yes, Challenging situations in breaking bad news were addressed n=56 (70%) No, only 24 (30%) yes, Reflective approach in coping with the effects of breaking bad news 58 (72.5%) No, 22 (27.5%) yes.

Conclusions: Overall, this study found that curriculum content and methodologies in breaking bad news teaching and assessment is inadequate to make resident doctors competent in this important skills.

Introduction

Breaking bad news (BBN) is a medical interview whose purpose is to pass unfavourable medical information to a patient: diagnosis of cancer, transition to palliative care and death were the main bad news in this study.

For doctors bad news is viewed objectively as diagnosis of potentially terminal disease, poor prognosis, failure of treatments and impending death (Heyse-Moore, 2009). These changes in the continuum of death and dying requires communication between the healthcare worker and the patient, who on one hand is apprehensive of where he/she is going and the doctors treatment options which promises to reverse the trajectory. This conversation is difficult for anyone not only the doctors who are mandated by their profession not only to give the good 'all is well' but also the bad news of terminal illness.

Studies show that key communication skills elements in breaking bad news have been identified (Engel, 1990) (Nadelson, 1993) and can be taught using conventional and experimental methods (Spiro H. , 1992) (Spiro H. M., 1996). Recently from the 1990s, conferences and intense literature reviews have yielded guidelines in breaking bad news

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training. This culminated in the signing of international consensus statement in Amsterdam in 1998 (Makoul G. S., 1999).

Among the recommendations was the development of a coherent framework of teaching and assessment of communication including BBN. This led to improvement of this type of communication in those countries. Further studies and surveys have showed that these statements are effective in making doctors competent in breaking bad news tasks (Abbas *et al.* 2020).

These competencies were incorporated into the curricular in all medical schools in the developing world including Moi University and the older Universities like University of Nairobi, University of Makerere in Uganda and Ibadan in Nigeria. Surveys done as late as 2020 showed that African countries remain behind in this important skill however the Asian countries had achieved competence (Abbas *et al*. 2020). Despite evidence based training and inclusion in curricular, competence in this skill remains low and poor performance in BBN especially with cancer patients, has been shown to be associated with worse clinical and psychosocial outcomes, including worse pain control, worse adherence to treatment, and confusion over prognosis and dissatisfaction at not being involved in decision making (Hanratty, 2012). In other words, harm to patients which is against the norms of medical practice. The current study was therefore to review the curriculum content and methodology to determine its adequacy in making doctors competent in breaking bad news tasks.

Material and Methods

The study was approved Institutional Research Ethics Committee (IREC), at the CHS Moi University (FAN:IREC 1716) year 2016.

Research paradigm

The study was positioned within pragmatism paradigm where researchers focus on the 'what' and 'how' of the research problem (Creswell, 2007).

Research design

A Mixed methods study approach was used to gather data in this sequential explanatory mixed study. The primary quantitative data was produced using self-administered questionnaires related to questions about the adequacy of various aspects of the and qualitative data using focus group discussion (FGD) and in-depth interviews with the teachers (Creswell 2007).

Research question

Is the content and training methodology utilized in training doctors in BBN tasks adequate to make them competent?

Data production

Quantitative data was collected using the three questionnaires. After analysis of quantitative data, qualitative data; themes were generated after further scrutiny of data to complete analysis.

Results

Table 1 a. Demographic characteristics of the participants

Variable		Number	Percentage
Gender	Male	44	55
	Female	36	45
Department	Reproductive Health	15	18.8
	Orthopaedics	15	18.8
	Child health and paediatrics	14	17.5
	Internal medicine	10	12.5
	Family medicine	5	6.3
	Oncology	1	1.3

	Radiology	10	12.5
	General Surgery	10	12.5
Experience	Less than 5 years	79	
	More than 5 years	1	
Additional training	Yes	10	12.5
	None	55	68.5
	Observed	15	18.8

Table 1 b. Demographic characteristics of lecturers in communication skills

Participant	Experience in years	Highest level of training
1	More than 10	MSc Counselling psychology
2	More than 10	PhD human communication
3	More than 15	PhD human communication

Table 1 c. Demographic characteristics of residents interviewed in the focus group discussions (FGDs)

Participant	Experience in years	Additional training	Qualifications
1	12	Yes	MBCHB, MMED
2	5	No	MBCHB
3	4	No	MBCHB
4	4	No	MBCHB
5	5	Yes	MBCHB
6	4	No	MBCHB
7	5	No	MBCHB

Table 1 d. Documents that were reviewed

Document	Date signed
Kenya medical practitioners and dentists core curriculum	Current (not dated)
Moi University Senate Approved MBCHB curriculum	Approved 2011

Table 1 a, b, c, and d. shows demographic characteristics of residents, lecturers and documents analysed; A total of 80 participants were recruited for the study. Reproductive health students were 15 (18.8%), orthopaedics was 15 (18.8%), paediatrics were 14 (17.5%), radiology 10 (12.5%), Internal medicine 10 (12.5%), family medicine 5 (6.3%) and reproductive health oncology 1 (1.3%). There were more men than women male 44 (55%) and female 36 (45%). All except 1 of the participants had worked below five years after graduation. The mean age of the participants was 37.4 years.

Table 2. Residents responses on the adequacy of content and methodologies used in training BBN

Various aspects of curriculum	No	Yes
Curriculum structure is helical or spiral with competence levels	70 (87.5%)	10 (12.5%)
Theoretical basis of communication skills covered	46 (57.5%)	34 (42.5%)
Breaking bad news training using task approach with task process	51 (63.5%)	29 (36.25%)
Challenging situations in breaking bad news were addressed	56 (70%)	24 (30%)
Reflective approach in coping with the effects of breaking bad news	58 (72.5%)	22 (27.5%)

Table 3. Thematic analysis of content and methodologies utilized in training doctors in breaking bad news tasks

Themes on content and methodologies		Covered/utilized
Curriculum structure	Helical approach with Competency levels	No
Theoretical basis of BBN communication skills	Patient-centered approach	Yes
	Patient safety/satisfaction	Yes
	Tasks and skills	No
	Communication skills knowledge	Yes
Challenging issues	Essential steps in BBN	No
	Communication in different contexts	No
	Handling emotions	No
Reflective practice	Recognizing and managing own reaction to BBN	No
	Self-reflection and self-awareness	No
	Over content utilized 3 out of 9	33.3%
Methodologies	Interactive practice sessions	No
	Role plays	No
	Experimental/ active methods	No
	Group work	Yes
	Audio/Video presentations and review	No
	Personal development journal/diaries	No
Other methods	Skills lab	Yes
	Over all recommended methodologies utilized 2 out of 7	28.5%

Summary of narratives from participants: lecturers and residents

Curriculum structure and course content; '*Communication skills training is build in all levels of learning, however the assessment of students is done only during the course of communication skills. Certain aspects of communication skills like breaking bad news is not sufficiently taught as these will require students to have a clear picture of what a live threatening situation is'*

Training methodologies: '*Lectures and overviews are the main modes. There are no practicals and assessment is by MCQs and short answer questions, it all theoretical, none of the listed methodologies are used'.*

Competency levels: One of the lecturers said "*these are children and they have no idea about breaking bad news in first and second year, so this is just mentioned to be covered more adequately in the clinical years, however we cannot be sure whether this is done or not as we are through with them first and second year"*

Discussion

The main findings in this study as indicated above is that the content and methodologies utilized in training of doctors are not adequate. This similar to other studies where curriculum content has been found to be the main issue in competence. Maguire and co-workers concluded that specific content would lead to an advantage over those without. Aspergen in one study found that the skills are easily forgotten if not maintained by practice, supporting the spiral structure of the curriculum. (Aspergen, 1999) (Laura, 2019)

The curriculum allocates a total of nine units in the training of communication skills in year one and two and the amount of time allocated to these course seem justifiable as many studies have shown that these skills though short lived can still be effective in improving leaners

personal and professional development, (Martino, 2007) (Heitanen, 2007) (Holden, 1989) (King, 2002). The timing of these courses however is the issue, whereas giving them in the early years of training gives doctors foundations needed to understand human behaviour, it may be too early in the program for the learners to make meaningful application of the knowledge gained especially in the intermediate and complex communication skills where breaking bad news lies.

Other studies have documented that training in clinical clerkships is more effective than in a pre-clinical courses; two high-quality studies from Maastricht (Kraan, 1990) (Bogels, 1996). Studies show that early in the program leaners have not yet been exposed sufficiently to clinical experiences for them to be able to effectively transfer their learning (McCarthy, *et al.* 2008.) The Canadian consensus statement (Donald, 1992), British General Medical Council has developed a helical approach to curriculum structure for undergraduate medical education (Martin, 2008).

Students moved to the clinical years without having been able to comprehend the connection between breaking bad news communication skills and clinical practice, this leads to theory-practice gap which has been extensively discussed in literature as source of significant deficiency in training of doctors (Chant, 2002) (Aspergen, 1999) Aspergen recommend for medical students to utilize the knowledge in communication skills, they should be given during clinical years and reinforced in practice. (Shulei, 2012) Shulei, looking at the status quo in humanistic education recommend horizontal “relevance” where the process of teaching, humanistic courses should be mutually penetrated with natural science and medical courses, overlapped with each other and Longitudinal “sequence” where humanistic courses should be set up at the preclinical stage, but are not finished at the preclinical stage and are extended to the entire process of teaching.

On paper this methodology included lectures, role plays, overviews, video and audio presentation, group work and simulated patients. The main mode of teaching include lectures, overviews and tutorials which are the main method of content delivery. Aspergen suggests that training should use experiential methods and McCarthy (McCarthy, 2008) support this which include, group work, role play, personal development diary, flipped classroom approach and feedback. Additional training in breaking bad news significantly influenced all aspects of competence in breaking bad news. This has been documented in other studies (Fallowfield L., 2004) (Barnett *et al.,* 2007).

Limitations of the study

Purposive sampling, self-reported subjective responses which lack objectivity, potentially put bias in the findings of this study hence the findings may not be generalizable to the larger population of residents

Summary: Overall, this study has conclusively found that curriculum content and methodologies in breaking bad news teaching and assessment is inadequate.

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