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PHYSICIANS' PERCEPTION OF EVIDENCE BASED MEDICINE: A SURVEY IN LAHORE, PAKISTAN

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EBM is a growing worldwide movement in health care, that aims to bring the best evidence from medical research to the bedside, clinic and community. EBM appeared early in 1990 and since then it has developed and expanded worldwide. It has met a considerable success over the past three decades in promoting critical scientific and practical awareness of the status of different after research claims to therapeutic knowledge. This subject of EBM is only theoretically known to only some of our physicians. We assessed physician's attitude towards EBM in a cross-sectional study conducted in the district of Lahore, Pakistan; from March 2005 to August 2006, by a self-administered questionnaire (proforma), which included questions on whether the physicians were in favour of EBM, and at what level EBM should be taught. A fairly reasonable response (63.6%) was received from the physicians and among these, most had a fair idea about EBM. They believed that EBM, if practiced, will improve patient care (68.8%), can reduce health care cost (59.1%) and will update the knowledge of the physicians (92.7%). A large majority (91%) believed that EBM and its usefulness should be taught only at post-graduate level.

The current medical practices depend upon clinical experiential observations, some understanding of the pathophysiological bases of disease and clinical common sense. This is enforced by consultation of textbooks or obtaining opinion from available more experienced experts. This is more applicable to the very busy family physicians. It has been observed that traditional continuous medical education (CME) has not done much good to improve professional skills. There is an increasing awareness and interest in bridging this gap between the old and traditional ways of practicing medicine, the newer research findings and their application in the present clinical practices[1]. This leads to the concept of evidence-based medicine (EBM) that is a growing worldwide movement in health care and aims to bring the best evidence from medical research to the bedside, clinic and community[2]. In its strict definition, EBM is "the conscientious, explicit and judicious use of current best evidence about the care of individual patients"[3]. Recently it has been recognized that patients have not always been given the information they need to enable them to make a decision about some aspects of health care aimed at population level disease control, hence there is a gradually increasing public expectation that patients will be informed about their illness and the options for treatment, and will also be involved in decision making about their health care[4]. The purpose of EBM is to integrate the best research evidence with clinical skills and patients' values and preferences because the ultimate aim of improving care could not be achieved with changes in knowledge and skills alone—it would also require changes in attitudes and behaviour[5].

The concept of EBM appeared early in the 1990s and since then it has developed and expanded worldwide[6]. This is an important movement within medical and health services. It has met a considerable success over the past two decades in promoting critical scientific and practical awareness of the status of different after research claims to therapeutic knowledge.

EBM de-emphasizes the institutional unsystematic clinical experiences and pathophysiological bases making sufficient ground for clinical and therapeutic decision making, instead it emphasizes the searching of evidence from the available clinical research. This may lead to a better outcome than what we expect. Such clinical research developments can now be easily approached using electronic media (internet). However, the majority believes that they do not have enough time to practice EBM. Instead, they assume that a better way is to go according to experiential learning and evidence based guidelines developed by their senior colleagues[7]. Hence, for a large majority of practicing physicians, particularly in the developing countries, EBM is an acquired and self-

PROFORMA

Characteristics of Participating Physicians

Title	Residents Specialists Medicine Surgery Consultants / Teacher Family Doctor General Practitioner
Sex	M F
Place of Graduation	KEMC QMC AIMC RMC PMC Others (name)

KEMC (King Edward Medical College)
QMC (Quaid Azam Medical College)
AIMC (Allama Iqbal Med. College)
RMC (Rawalpindi Med. College)
PMC (Punjab Medical College)

Qualifications	MBBS / BDS /diploma FCPS / MRCP FRCS / FCPS Board (US) Masters Ph.D. Others
Specialty	Medicine Surgery Paediatrics Obs/ Gynaecology Family Medicine Orthopaedics Others
Place of work	Tertiary General / DHQ THQ PHCC Family Doctor

Physicians Opinion Regarding EBM

Variables	**SD**	**D**	**SA**	**A**	**DK**	**NA**
EBM improves quality of care						
Health care cost can be reduced						
EBM increases knowledge						
Is focussed on patient's value of life						
EBM does not replace clinical experience						
Should be taught to postgraduates						
Should be taught to undergraduates						

SD Strongly Disagree **SA Strongly Agree** **DK Don't Know**
D Disagree **A Agree** **NA Not Attempted**

motivated knowledge, which is applicable on individual patients under their care. EBM is rather easy to apply in the tertiary care hospitals where the morning meeting report gives a good idea

about it.

The subject of EBM is only theoretically known to only some of our physicians. We in this paper have made an attempt to present physicians' attitude towards EBM in a Pakistani setting.

MATERIAL AND METHODS

We assessed physician's attitude towards EBM in a cross-sectional study conducted in the district of Lahore, Pakistan; from March 2005 to August 2006. The study population consisted of physicians in general hospitals; family physicians, clinics and tertiary care centers. A multi-stage random sampling technique was used to select the sample from all the health care facilities. All the physicians were first briefed about the importance of EBM (including those who had already heard about it) through handouts. In order to keep our study free from biase opinion, the names of all the participating physicians were kept anonymous.

The tool of data collection was carried out by a self-administered questionnaire (proforma), which included questions on whether the physicians were in favour of EBM, and at what level EBM should be taught. All the variables were checked for completeness and were coded. Data was then entered into a personal computer by using Microsoft Excel programme. It was double-checked before the relationship between the attitude of physicians and other variables were assessed.

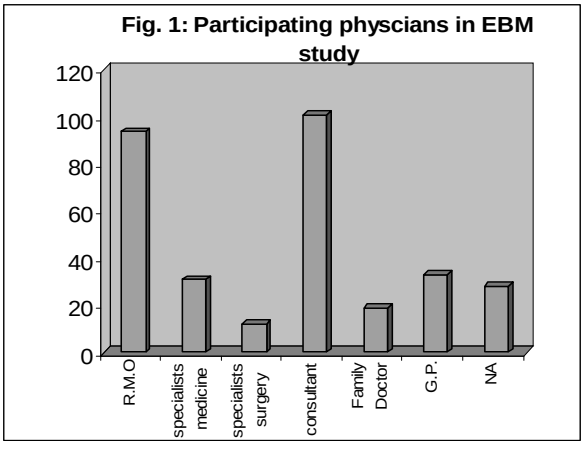
RESULTS

We received responses from 318 out of 500 physicians with a response rate of 63.6%. Reminders had to be sent to only a few physicians. Among these respondents most of the physicians had a fair idea about EBM, while 81 (25.5%) physicians were not able to answer any of the questions despite the briefing about EBM prior to conducting the survey. Among 318 physicians, 185 (58.2%) were males and 89 (28%) were females, while 44 (13.8%) did not mention their sex. The academics of the participating physicians are shown in Table 1. In calculating the respondents answers about the statements (Table 2), 68.8% agreed (agreed and strongly agreed) that care given to patients could be improved by EBM, 59.1% agreed that health care cost can be reduced through EBM, 92.7% thought that it would help to update their knowledge, 72.3% agreed that it is focused on patients value of life, 77.7% expressed that it could not replace clinical experience, 78% agreed that it should be taught to undergraduates, while 91.2% agreed that it should be taught at postgraduate level only. Figure 1 and 2 shows the number of participating health care facilities and the designation of the participating physicians. Unfortunately, no physician from primary health care centers responded to the survey inspite of repeated reminders.

Table 1: *Academics of the Participating Physicians.*

Variables	Description	No.	% age
Qualification	MBBS	104	32.7
	BDS	23	7.2
	Diploma	39	12.3
	Masters	30	9.4
	FCPS	71	22.3
	MRCP	15	4.7
	FRCS	7	2.2
	Boards (US)	6	1.9
	Ph.D	4	1.3
	Others	14	4.4
	NA*	7	2.2
Specialty	Medicine	72	22.6
	Surgery	30	9.4
	Paeds	14	4.4
	Ob/Gyn	25	7.9
	Family Med.	22	6.9
	Ortho	4	1.3
	Other	109	34.3
	NA*	42	13.2

NA* Not Attempted



DISCUSSION

This study shows 63.6% response from variable categories of physicians who had some idea of the EBM, before answering the proforma. Among these respondents a quarter of (25.5%) physicians

did not answer any questions. Table 1 shows the academics of the responding physicians' amongst whom, majority held postgraduate qualifications. An overall response regarding the usefulness of the EBM was very encouraging. A large majority of respondents believed that EBM, if practiced, will improve patient care, can reduce health care cost and will update the knowledge of the physicians. A large number (91%) believed that EBM and its usefulness should be taught to only postgraduates, however 77.7% expressed that practicing EBM is not a replacement for clinical experience. There are hardly any studies carried out in Pakistan addressing the physicians' attitude towards EBM. Only one study has been reported from Saudi

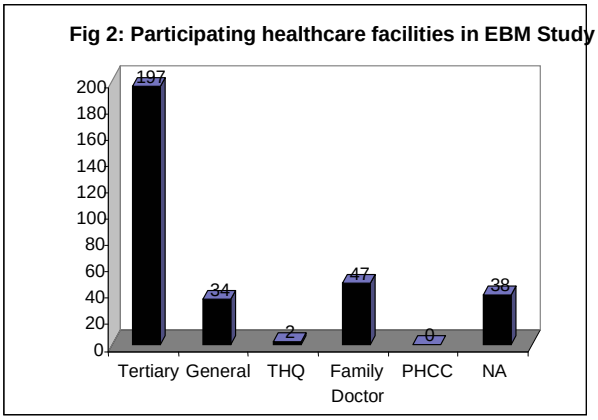


Table 2: *Physicians Opinion Regarding EBM.*

Variables	SD		D		SA		A		DK		NA	
	No	%age	No	%age	No	%age	No	%age	No	%age	No	%age
EBM Improves Quality of care	7	2.2	4	1.3	174	54.7	117	36.8	8	2.5	8	2.5
Health care cost can be reduced	10	3.1	74	23.3	77	24.2	111	34.9	36	11.3	10	3.1
EBM increases knowledge	4	1.3	7	2.2	170	53.5	125	39.3	2	0.6	10	3.1
EBM is focused on pt.'s value of life	6	1.9	20	6.3	90	28.3	140	44	49	15.4	13	4.1
EBM doesn't replace clinical experience	11	3.5	36	11.3	102	32.1	145	45.6	13	4.1	11	3.5
Should be taught to Undergraduates	9	2.8	35	11.0	107	33.6	141	44.3	12	3.8	14	4.4
Should be taught to Postgraduates	7	2.2	2	0.6	214	67.3	76	23.9	4	1.3	15	4.7

SD Strongly disagree **D** Disagree **SA** Strongly Agree
A Agree **DK** Don't Know **NA** Not attempted

Arabia[1]. They found an encouraging positive attitude among physicians towards EBM. A similar interest has been observed among our respondents (63.6% response) who showed a very positive attitude towards EBM.

The actual application of EBM in the clinical practice, at family physicians' level, as well as at tertiary care teaching hospital level, need to take certain steps. The physicians are capable of diagnosing, managing and treating most of the patients with clinical expertise, however at times in spite of the easy diagnosis, a difficulty may arise in a particular patient concerning his management. Hence some very valid questions may arise concerning his treatment. Therefore to evaluate such a problem and to answer these questions, we need to find ways (such as through internet) to study the disease at depth so that sufficient evidence may be obtained to satisfy the treating clinician. When combined the newer information (evidence based) with clinical features and the clinicians' expertise, the relevant answers to the questions are obtained. This makes the treatment of patient (under question) easy, accurate and to the satisfaction of the patient and the physician. Hence a correct clinical decision-making is important. An appropriate decision can reduce symptoms, and improve the quality of life of the patient.[8,9] This needs only a little effort on the part of the treating physician that he obtains an upto date and correct information for its implementation in a particular patient.

This will satisfy the patient who otherwise is likely to ask many questions regarding his treatment.

It may be pointed out that the application of EBM is also very much possible in other fields such as laboratory medicine and imaging sciences where very rapid advancements are taking place.

Although most of the studies report useful effects of EBM; there are many physicians who differ in their views. They feel that the barrier to practicing EBM was the lack of personal time from their busy practices (3%)[10]. Concerns were expressed through comments such as "it leads to erosion of physician's autonomy or it is time consuming or EBM ignores clinical experience". Some believed that EBM studies are mostly population based hence couldn't be applied to the individuals.[11] In the present study we did not find a significant number of physicians who were of the opinion that they may not find time to practice EBM.

These arguments apart, what comes out after the integration of clinical expertise, patient values, and the best evidence on scientific grounds, is the logic of best decision-making and planning the patient care.[8] In this regard an encouraging observation in our tertiary care hospitals set up, is that the clinicians are gradually giving up the obsolete ways of managing their patients. They are now frequently consulting electronic media to obtain maximum information about the aetiology, diagnosis and patient care. It must not be forgotten here that a large majority of the population is under care of family physicians. Therefore the importance and necessity of application of EBM (in some of their patients) need to be diffused among them. This will definitely improve the health care of their patients.

Here we have to stress that if patients and society put trust in medical professionals' competency and delegate all responsibilities to the medical professionals who inturn need to make sure that their competency is a state of art. This is possible only when they have the habit of acquiring self-motivated up to date information to get answers to the patients' problems[5].

As observed in our study and those of others,[3,13] the importance and the necessity of EBM is essential in solving our day to day diagnostic and therapeutic problems; we need to impart this information to our professionals under training both at undergraduate and postgraduate levels, so that they, in their practical life develop the habit of improving their knowledge through electronic media that in turn will help in a better management of their patients. For a vast majority of practicing physicians, particularly in the developing world, EBM is an acquired, self-motivated knowledge.[3]

Last but not the least, it is suggested that we need to do similar studies in many centers of Pakistan, so that the views of a large cross section of our health professionals are available.

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