Family Physicians' Knowledge, Attitudes, and Perceived Barriers on the Practice of Evidence Based Medicine, Mansoura, Egypt

Thesis

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Shimaa Samir Ibrahim Youssif

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List of Abbreviations

Abbreviation	Meaning
ACP	American College of Physician
BMJ	British Medical Journal
CEBHA	Collaboration for Evidence Based Healthcare in Africa
CFO	Chief financial officer
CIO	Chief information officer
CME	Continuing medical education
CMO	Chief medical officer
DARE	Drug abuse resistance education
EBC	Evidence based care
EBCG	Evidence based clinical guidelines
EBG	Evidence based guidelines
EBCP	Evidence based clinical practice
EBHC	Evidence based health care
EBM	Evidence based medicine
EBMP	Evidence based medical practice
EBP	Evidence based practice
EBPG	Evidence based practice guidelines
FHC	Family Health Centers
FM	Family medicine
GP	General Practitioner
IQ range	Inter quartile range
IMCI	Integrated management of childhood illness
LVHN	Lehigh Valley Health Network
MOH	Ministry Of Health
OR	Odds ratio
PHC	Primary health care
PICO	Patient or problem, Intervention, Comparison, Outcomes.

List of Abbreviations (Cont.)

POEM	Patient Oriented Evidence that matters
RCT	Randomized controlled trials
SD	Standard Deviation
UIC	University of Illinois at Chicago
UK	United Kingdom
USA	United States of America
WWW	World Wide Web

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Abstract

Medical mistakes are very serious, and the medical profession is very conscious about quality of care provided to patients. Till now little is known about comprehensiveness of EBMP among Egyptian physicians, especially in the field of Family Medicine. Serious efforts should be done regarding introducing EBM in to practice. **Aim of work** was to determine knowledge, attitude and practice of EBM among Family physicians in Mansoura district and to identify barriers to use EBM among Family physicians in Mansoura district.

Participants and Methods: A Cross-sectional study was carried out on physicians working in family health centres from (Jan 2014 to June 2014) in Mansoura district for more than 1 year at urban & rural areas regardless of their specialties. All the family centres in Mansoura district were included and all the working physicians were recruited (186). A self-administered questionnaire was used to inquire about knowledge, attitude and practice of EBM as well barriers in its use.

Results: The term of EBM was known by the vast majority of the study group (98.4%), but knowledge of the physicians in PHC about the resources of evidence was generally low. However, positive attitude was clearly observed. Usage of the different sources of evidence during clinical practice was limited. Participation of the physicians in scientific activities within the last two years was also limited. The most frequent rated barriers that interfere with the usage of EBM were the lack of financial gain (93.5%), difficulty of involving the whole practice (93.0%), and the lack of investment (90.3%), followed by Patients' expectations (88.2%) and patients' demand of ineffective treatment (84.4%). The least important was availability of much information (51.1%). the most important educational method was reported to move towards EBM is to incorporate it into the undergraduate courses with refreshing workshops during their professional practice.

Conclusion: Though positive attitude of physicians was observed towards EBM, knowledge and its usage as well as the participation in scientific activities were very limited. Barriers related to the financial aspect as well as the lack of hard evidence were the most frequently mentioned. Patients' expectations and their demand of ineffective treatment were also frequently mentioned as important barriers.

Keywords:

Evidence based practice, attitude, family physician; knowledge.

Protocol

Medical mistakes are very serious, and the medical profession is very conscious about treating those who are ill. EBMP is that medical practice that aims at minimizing medical mistakes. Consequently, the practice of EBMP should be considered as crucial and clinical librarians should endeavor to render effective and efficient information support services to physicians (1).

EBP is the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care. Clinical expertise refers to the clinician's cumulated experience, education and clinical skills. The patient brings to the encounter his or her own personal and unique concerns, expectations, and values. The best evidence is usually found in clinically relevant research that has been conducted using sound methodology.

The evidence, by itself, does not make a decision for you, but it can help support the patient care process. The full integration of these three components into clinical decisions enhances the opportunity for optimal clinical outcomes and quality of life. The practice of EBP is usually triggered by patient encounters which generate questions about the effects of therapy, the utility of diagnostic tests, the prognosis of diseases, or the etiology of disorders.

Evidence-Based Practice requires new skills of the clinician, including efficient literature, searching, and the application of formal rules of evidence in evaluating the clinical literature (2).

Consequently, evidence-based health service tends to generate an increase in the competence of health service

decision makers and the practice of evidence-based medicine at the organizational or institutional level. It strengthens the motivation of any health service decision-maker to use scientific methods when making a decision and details of this approach to health services and public health has been discussed in a book titled evidence-based healthcare & public health (3).

The five steps of EBM in practice were first described in 1992. (4), and the result of the 2003 Conference of Evidence-Based Health Care Teachers and Developers was summarized into five steps and published in 2005 (5).

1. Translation of uncertainty to an answerable question and includes critical questioning, study design and levels of evidence (6).
2. Systematic retrieval of best evidence available (7).
3. Critical appraisal of evidence (8) for internal validity that can be broken down into aspects regarding (9).
    - Systematic errors as a result of selection bias, information bias and confounding.
    - Quantitative aspects of diagnosis and treatment.
    - The effect size and aspects regarding its precision.
    - Clinical importance of results.
    - External validity or generalizability.
4. Application of results in practice (10).
5. Evaluation of performance (11).

Little is known about the impact of evidence-based medicine in family care (12).

- ❖ In Egypt about 52% of the Family Physicians believe that practicing EBM improve patient outcome (a study done in accredited family health centers, Menoufia governorate).

- ❖ The most frequently reported Barriers are: -
- patient overload (82.67%),
- Lack of critical appraisal skills (82%)
- Lack of time 80.67%. (13).

- ❖ In Saudi Arabia the reported barrier is the lack of training in EBM (72.9%) (14).
- ❖ The results of a faculty member's evaluation of the students' achievement showed an average total percentage (92.2%) for all EBM steps (15).

- ❖ It was found that less stressful and more proficient organizational cultures were associated with positive clinician attitudes toward adopting evidence-based practice (18).

- ❖ Generally there is a positive attitude towards practicing EBM despite the moderate EBM skills and the presence of some barriers. (reported in studies from Japan, USA, and Israel) (16), (17), (19).

EBM is a key component of patient quality and efficiency of health care provision. Till now little is known about the extent of EBMP among Egyptian physicians, especially in the field of Family Medicine.

Meanwhile, other studies had been discussed before (Ain Shams University Residents knowledge, attitude &practice, EBMP and barriers among Family Physicians at Accredited Family centers in Menoufia) this study is a step to portrait the problem from different aspect; exploring the situation in one of our Governorates that include family physicians in accredited and non-accredited 1ry health care and family centers in both urban & rural areas.

Goal of the study

Patient safety is the goal, as using of EBM practice is considered a key component of quality and safety of care provided to patient.

Objectives of the Study

1. To determine knowledge, attitude and practice of EBM among physicians working in PHC in Mansoura district.
2. To identify barriers to use EBM among physicians working in PHC in Mansoura district.

Subjects and Methods

Type of the study: Cross-sectional study.

Study setting: Mansoura, family health centers and units accredited & unaccredited.

Study population: Medical staff and physicians working at Mansoura family health centers and units for more than (1) year at urban & rural areas regardless of their specialties.
Total number of 1ry health care and family centers is (49).
Total number of physicians (which is variable in each center) is around (186).
Family centers are categorized as:

- Maternal and Child Health: (2).
- Integrated hospital was changed to Family Medicine Center: (7).
- Accredited Family Medicine Center: (3).
- Family Medicine Unit: (25).
- Accredited Family Medicine Unit: (4).
- District clinic: (7).
- Outpatient clinic: (1).

Sampling: -

All the family health centers and units in Mansoura district are included and all the available physicians will be recruited (186).

Study tool:

A self-administered questionnaire adopted from McColl et al., 1998 and McAlister 1999 with some modifications, such modifications are change in order of the questions and change questions with visual analogue scale to

Likert scale to make answers more specific and accurate to facilitate data entry.

Statistical analysis:

Data will be entered in computer by using SPSS program version 20, and suitable descriptive and analytical tests will be performed.

Ethical Issue:

Informed consent will be taken from all participants and confidentiality will be insured for the collected data, and not being used for any other purpose.