Relevance of Evidence-based Practice in Nursing in Indian Scenario

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Evidence-based practice (EBP) has gained momentum globally influencing health care practices and policy. It is often said that EBP has revolutionised human health care in a measure larger than human genome project. Evidence-based practice has ushered in nursing influencing knowledge and practice world-wide. For the past decade, EBP as a concept has emerged as a major development in Indian health care system but significantly lags in its implementation. A developing country like India should advance putting evidence in practice considering its manpower, intellectual potential and technological advancements. As nursing is an important component of health care system, EBP in nursing has the potential to bring a paradigm shift in health care. This article describes the historical perspective, relevance and development of EBP in medical and nursing fields in India and challenges in implementing it.

Historical perspective

The origin of EBP can be traced to the work of Dr. Archie Cochrane who, in 1972, criticised the medical profession for its lack of rigorous evaluation of research findings to guide policy makers and health care organisations in decisions about health care (Melnyk & Fineout-Overholt, 2005). In 1980 Prof David Sackett, McMaster, Canada, published a series of critical appraisal of various types of clinical papers.

The term 'evidence-based medicine' was coined by a group of clinicians and epidemiologists at McMaster University in Canada and the pioneer was Prof Gordon Guyatt in 1990. The Cochrane collaboration was formed in the year 1993 to provide systematic review of randomised controlled trials in health care to assist practitioners in making well informed decisions about health care.

In 2000, worldwide movement across disciplines led to the establishment of Campbell collaboration.

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Development of EBP in India

After establishment of Rockefeller Foundation-funded International Clinical Epidemiology Network (INCLEN) Programme, 60 faculty from six medical colleges/institutes received training in clinical epidemiology between the years 1988-1998. Workshops on EBP were held for health professionals since 2000. In 2004, Dr Kameshwar Prasad of AIIMS, Delhi published a text book, *Fundamentals of Evidence-Based Medicine*. Thereafter, in 2005, South Asian Cochrane Network Centre was established at Christian Medical College, Vellore. The centre strived to raise awareness about the Cochrane Collaboration and evidence-based practice in South Asia, support review authors and contributors from countries within the region, promote access to the Cochrane Library and advocate high quality research in South Asia.

EBM movement in India has received support from national organisations. Indian Council of Medical Research (ICMR) paid a national subscription for the Cochrane Library in January 2007, thus making a rich and reputed source of evidence summaries available for all residents of India. The growth of activity in India has been dramatic, particularly authors of Cochrane reviews and protocols from just 19 (with 11 authors) in 2000 to 126 (with 78 authors) in 2007 (Alien C, et al 2007).

David Baum International foundation in collaboration with Indian Academy of Paediatrics undertook a project to train Indian clinicians in evidence-based health care. In 2012, First International conference on Evidence-Based Health Care was organised by International and National Society of Evidence-based Health Care. In a recent press release, Dr Kameshwar Prasad, head of the clinical epidemiology, All India Institute of Medical Sciences (AIIMS) said that development of a standard guideline for conditions like stroke, diabetes, cancer etc. would also give a boost to evidence-based approach to treatment. This is in the pretext of unwarranted procedures and diagnostic tests putting extra financial burden on the healthcare system and cause increased morbidity and mortality. Experts cite studies showing rampant use of unnecessary procedures

in India. For instance, hormone replacement therapy is carried out in post-menopausal women despite there being no evidence that it reduces cardiac events. Similarly, antioxidant vitamins are commonly prescribed for reducing cardiovascular disease though there is no evidence of its efficacy. AIIMS is leading a first-of-its kind global initiative to promote evidence-based healthcare.

Another development in the country is the formation of a satellite centre of the Cochrane Public Health Group (CPHG) for South Asia, based in India in January 2013. CPHG South Asia will sit within a new enterprise within the Manipal University at Manipal, that will align with the Melbourne editorial team and organisational context under the broad title of Public Health Evidence South Asia (PHESA). The focus will be on Evidence synthesis (systematic reviews), Primary research (Including methodological development) and Knowledge translation (i.e. linking evidence to policy). A lot of resources in EBP are available in the University and the disciplines of medicine, nursing & allied health has taken steps to activate implementation of EBP. Besides, an initiative to train nurses to practice EBP is in process.

Indian Paediatrics launched the section termed 'EURECA' (Evidence that is Understandable, Relevant, Extendable, Current and Appraised) section in the year 2008. In this section, evidence summaries on relevant clinical problems were presented in easily understandable language for the readers of *Indian Paediatrics*. The Journal of the Association of Physicians of India also encouraged adoption of evidence-based medicine to the patients' bed side. There is increasing interest to implement evidence-based approaches in clinical and public policy. Sharma et al (2009) have audited 2993 prescriptions of physicians practicing at primary, secondary and tertiary level and reported that there is suboptimal use of various evidence-based drugs.

Lessons could be also drawn from models of evidence-based health care delivery provided by the institutes like Sanjay Gandhi Post Graduate Institute of Medical Sciences, a tertiary care centre in Lucknow, India. In the Institute, there are free internet facilities in wards, outpatient departments, laboratory, library and the residents' room. Websites such as MD consult, Science Direct, Proquest are subscribed in addition to large number of medical journals. Twenty-four hours library service, brief curriculum of introduction to EBM at the beginning of every session and motivated teachers further assist in incorporating the basic skills of EBM among residents (Agarwal, 2008).

Historically several examples clearly reflect an evidence-based framework, ranging from Nightingale's first work after her return as a heroine from the Crimean War in 1856, to a late attempt to influence social policy with a proposal for a chair in 'social physics' at Oxford University in 1891 (Lynn, 2001). It is unequivocal that evidence-based practice has become an imperative for clinical decision making of contemporary nurses. Therefore, the aims of the EBP movement are important and necessary aspiration for nursing practice (Mantzoukas, 2008). The goal of nursing has been to provide care to patients in a way that will help them live to their fullest capacity with the minimum amount of pain and discomfort. Not only has the identification of ways to provide better patient care improved, but also health information is coming to us at an accelerated pace. New treatments are constantly being found, and older approaches are continually becoming phased out. Hence nurses need to be equipped with necessary knowledge and skills, continually learning and updating their approach to patient care as medical knowledge continues to evolve. Moreover, patients are also becoming better informed through the media and the Internet is stimulating a new passion for life-long learning among health professionals.

Every day, nurses across the care continuum perform a multitude of interventions (for example, administering medication, positioning, suctioning etc.) that should stimulate questions about the evidence supporting their use (Melnyk, 2009). Globally much of the development in EBP in Nursing took place since 2000. The year 2012 is marked with an uprising of EBP in Nursing as it was declared as International nurses day theme by International council of nurses (Closing the Gap: From Evidence to Action). Indian Nursing Council in the revised syllabus in 2010 emphasised EBP in the UG & PG curriculum. The Nursing Research Society of India too held the conference in 2012 with the theme, Evidence to Action. For the past few years several conferences, workshops, symposia focusing on EBP, were organised at national and regional level. TNAI also conducted workshop on Nursing Research for Evidence-Based Nursing Practices in 2012. Sensitisation to the concept of EBP has begun; however strategies need to be put forth to take it forward.

Relevance for India

India is the second most populous country of the world and has changing socio-political, demographic

and morbidity patterns that have been drawing global attention in recent years. Despite several growth-orientated policies adopted by the government, the widening economic, regional and gender disparities are posing challenges for the health sector. About 75 percent of health infrastructure, medical man power and other health resources are concentrated in urban areas where 27 percent of the population live (Ashok et al, 2002). The large patient population and high prevalence of poverty & illiteracy mandates that health care need to be beneficial to people and cost-effective. Moreover there is lack of health insurance for more than 90 percent of population and 80 percent of care provided by private practitioners making EBP more relevant. In addition, weak regulations for practice & pharmaceuticals and aggressive marketing of pharmaceuticals & pressure on practitioners making sense of practising health care based on evidence. Due to the burden of large patient load and lack of time and incentives, the clinicians are at huge risk of being out-of-date and provide poor quality of care.

EBP has a huge role to play towards ameliorating the above difficult situation. Training of today's and future practitioners in EBP can help them to remain up-to-date and provide effective protection to people against unwittingly falling prey to misleading medical literature and misconceived marketing pressures (Prasad, 2012). Even at a policy making level, EBP could regulate the healthcare.

Challenges in Implementing EBP

Implementing EBP in resource-limited countries like India poses major challenges. These include lack of educational resource, language barriers, unreliable internet connections, inequity in accessing evidence, lack of supportive environment and inadequately trained faculty (Prasad, 2012). It appears that the initial resistance / scepticism towards evidence-based medicine (EBM) has declined and the current challenge for professionals is 'how to' rather than 'why to' practice EBM.

The major hurdles include limitations related to: (i) availability (of high quality evidence on problems/ interventions relevant to our setting), (ii) accessibility (to current evidence at the point of care), (iii) appraisal (of available evidence to judge reliability/ validity), and (iv) applicability (of evidence developed for/from another setting into the local setting). The sterling contribution of the Cochrane Collaboration worldwide and the South Asian Cochrane centre in India has greatly facilitated progress towards overcoming these barriers (Mathew, 2010). There are several EBP-related issues peculiar to India. The co-existence of various systems of medicine like Allopathy, Ayurveda and Homeopathy makes it rather complex for citizens to decide the best evidence-based treatment option. Hence, there is a strong need to establish evidence base in different systems of medicine.

Way forward

Good clinical practice depends on the integration of one's expertise with the best available evidence (Hoskote et al, 2009). The impetus for evidence-based practice comes from payer and healthcare facility pressures for cost containment, greater availability of information, and greater consumer savvy about treatment and care options. Evidence-based practice demands changes in education of students, more practice-relevant research, and closer working relationships between clinicians and researchers. Evidence-based practice also provides opportunities for nursing care to be more individualised, more effective, streamlined, and dynamic, and to maximise effects of clinical judgment. When evidence is used to define best practices rather than to support existing practices, health care personnel need to keep pace with the latest technological advances and take advantage of new knowledge developments (Youngblut et al, 2001).

To keep up with this, the health care practitioners need training in EBP through workshops; it is also necessary to introduce EBP in UG and PG curriculum in medicine, nursing and all health related professions. If we could incorporate EBP in the current undergraduate curriculum, in the next few years nursing service will reap the benefits. There is a need to design an innovative and evidence-based model of baccalaureate education for health professionals that meets the current needs of health care and education. There is a need for evidence-based knowledge at the point-of-care as most health professionals have unmet information needs, besides day-today clinical dilemmas and differences in opinions.

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