



Evidence-based practice in Chile

Constanza Caneo¹ and Jorge Calderón²

¹Adult Psychiatrist, Liaison Psychiatry Unit, Pontificia Universidad Católica de Chile, Santiago, Chile

²Adult Psychiatrist, Head Liaison Psychiatry Unit, Pontificia Universidad Católica de Chile, Santiago, Chile. Email: jcaldep@gmail.com

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Over the past few decades, the emergence of evidence-based practice medicine (EBP) has allowed a change in the integration of knowledge with policy making and health service development, and Chile has been influenced by EBP with no exemption. In this paper, we will describe the impact of the EBP model at different levels of the Chilean health system, including the development of national clinical guidelines, medical training and in-patient involvement in health awareness.

Over the past few decades, medical teaching and practice around the world has been considerably modified by the expansion of the evidence-based medicine (EBM) model developed by David Sackett (Guyatt, 1991; Sackett *et al.*, 1996) as it has influenced research, medical school teaching curriculums and health service development. Nowadays, along with skills with an emphasis on empathy, assertive communication and provision of emotional comfort for patients, incorporating recent research into clinical practice has become essential. The focus on improving skills such as efficient searching of information, comprehensive reading, and critical appraisal of neurosciences represents the link that combines the knowledge generated from EBM with the development of healthcare policies and health services, and this is known as evidence-based practice (EBP) (Tanenbaum, 2005).

The EBP paradigm implies that every decision must be supported by the best current evidence, a process relevant and necessary for standardisation and the assurance of a better provision of healthcare for patients, considering the available resources and the sustainability for the planned treatment over time. In Chile, the lack of sufficient infrastructure and the need to import knowledge for clinical decision making because of scarce locally conducted research has limited the implementation of EBP. Despite these limitations, the EBP model has influenced several areas in Chilean medicine, ranging from medical training programs to the development of national guidelines (see Fig. 1).

Development of national guidelines

Chile has a population of 18 million inhabitants, with an income per capita of around US\$ 20 000, a Gini coefficient of 0.51 and a life expectancy of 82 years. Despite economic growth and

stability, there are several problems regarding the provision of healthcare in Chile. The national public health system provides services for 72.2% of the population. The Ministry of Health oversees the design, coordination and execution of health services in the public sector; however, its involvement in the private sector is rather restricted, which considerably reduces the impact of EBP in this sector (Chilean Ministry of Health, 2014).

An example of the impact of a mixed planning model in Chile is shown in the results of a study conducted by Araya *et al.* (2006). The study showed that differences in access to healthcare is dependent upon the type of system used (private/public) rather than due to the severity of the illness. The most graphic finding was that private sector patients were three times more likely than those in the public sector to have a consultation in mental health over a 6-month period, an association that was not influenced by disability or mental health illness severity (Araya *et al.*, 2006). This implies that there is a great need for the design and application of a health policy that applies to the whole population, throughout the country.

In 2006, as a way to palliate differences in access to adequate healthcare and to equalise service provision, the Ministry of Health developed the National Guidelines for Clinical Practice GES (Garantías Explícitas de Salud or Explicit Guaranteed Access to Health).

The guidelines are mandatory by law and every physician practising medicine within the Chilean territory must respect the minimum standards suggested in the guidelines for diagnosis, treatment and follow-up of the specified diseases. These guidelines are evidence based and are generated from recommendations by an expert panel elected by the Ministry of Health. The panel reviews the collected information using strategies from EBM search and evidence assessment – such as the Grading of Recommendations, Assessments, Development and Evaluation (GRADE) system developed by the Cochrane Collaboration – and classifies the quality of evidence of a certain recommendation alongside a visual summary of clinically relevant findings (Subsecretaría de Salud Pública, 2014).

A good example of national guideline development is the National Depression Detection and Treatment Program, which was developed in 2004 following a national disease-burden study that identified depression as an urgent matter

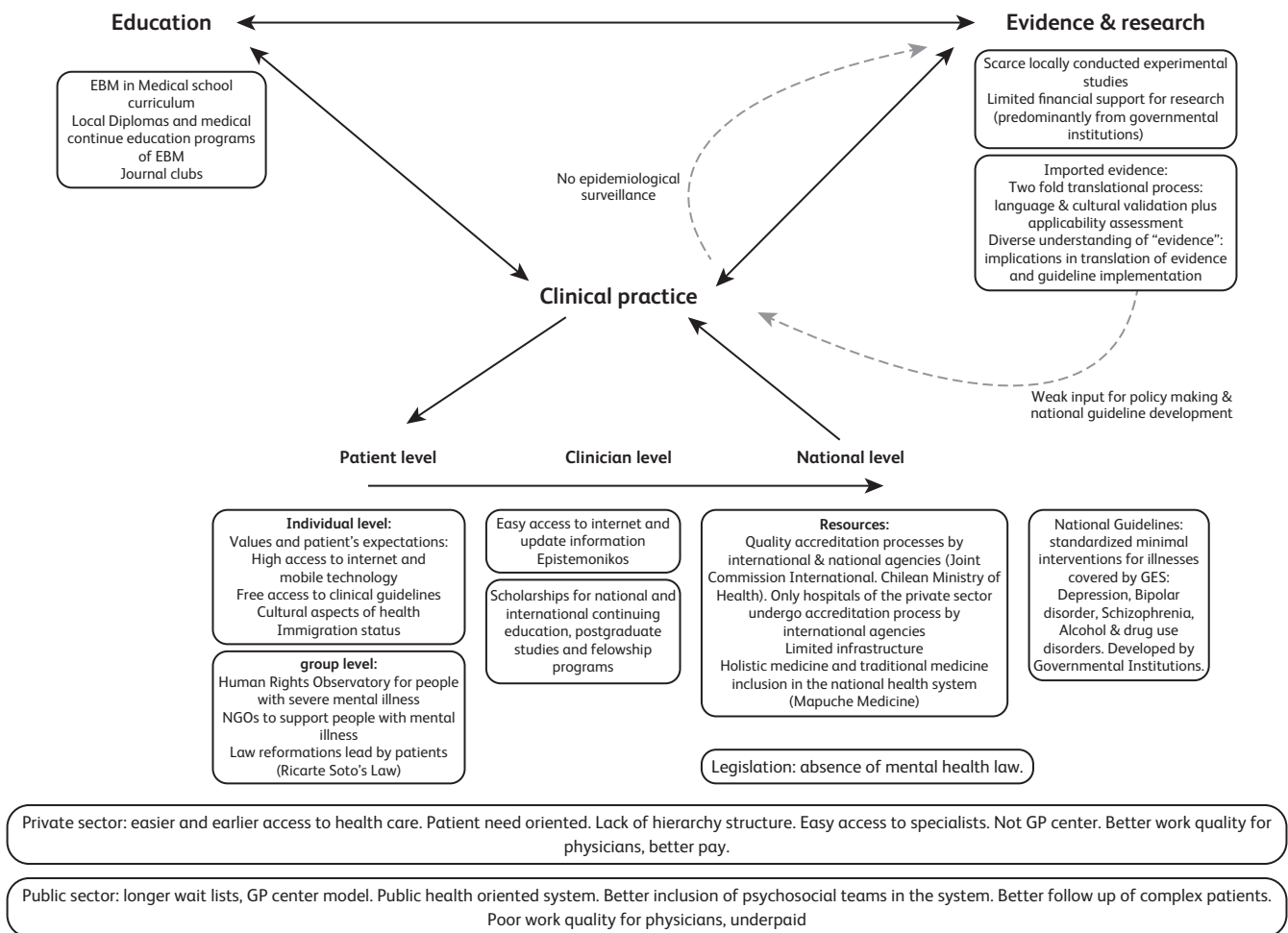


Fig. 1
Influence of the EBP model at different levels of the Chilean health and medical education systems.

for the Ministry of Health. The program was successfully scaled up nationally after a pilot study and became one of the 80 medical conditions covered by GES (Araya *et al*, 2012). The diagnostic procedures, pharmacological and psychological treatment, and clinical follow-up suggested by the guidelines are covered by health insurance in both public and private healthcare sectors, including coverage for electroconvulsive therapy and admission to hospital. Nonetheless, GES has its limitations. Pantoja *et al* (2012) analysed the GES guidelines with the Appraisal of Guidelines for Research and Evaluation (AGREE) tool and concluded that the Chilean guidelines had significant methodological issues up to 2009. The Guidelines are strong in clarity of language, good in scope and purpose of contents, but lack patient participation, rigour of development and applicability. As an example, schizophrenia and depression guidelines suggest treatments that are evidence based but that are scarce in Chile, such as cognitive-behavioural therapy for psychosis and interpersonal therapy for depression, thus explaining the 11% for applicability found by Pantoja *et al* in their methodological analysis (Pantoja *et al*, 2012).

Currently there are four clinical guidelines relevant for psychiatry: depression, schizophrenia, bipolar disorder and alcohol and substance abuse, which are updated every 5–6 years. Unfortunately, these evidence-based guidelines lack a systematic assessment for implementation fidelity and patient satisfaction is not considered (González-Valderrama *et al*, 2015). Moreover, there is no available database of service utilisation and no adequate epidemiological data on service delivery for assessing the fidelity and degree of implementation of the guidelines.

Medical training

All medical school programs in Chile provide different courses on biostatistics, public health and epidemiology, which include the concept of EBM. Accordingly, medical students know the basics in navigating search engines such as PubMed and online tools for clinically relevant, updated evidence such as UpToDate (<http://www.UpToDate.com>). Many universities provide, for all undergraduates and postgraduates, strong critical appraisal skills regarding the best clinical decisions (using the EBM model) that are constantly evaluated in journal clubs, seminars and during discussion at the patient's bedside.

Five Chilean universities are part of the Iberoamerican network of the Cochrane Collaboration: Universidad Católica de la Santísima Concepción, Pontificia Universidad Católica de Chile, Universidad de La Frontera, Universidad de Chile and Universidad de Valparaíso.

Epistemonikos

Epistemonikos, a non-profit organisation developed by Chilean health professionals and based in Santiago, is a collaborative research database that provides a search engine for systematic reviews. It also provides evidence-based reviews of clinically relevant and updated information available in different languages, including Spanish, Dutch and English, among others (Epistemonikos, 2017). This non-profit project is currently one of the top 10 medical search engines in the world, and one of the best for systematic reviews due to its scope and comprehensiveness (Rathbone *et al*, 2016). Recently, Epistemonikos launched a partnership with the Cochrane Collaboration to improve the quality and availability of systematic reviews.

Patient preference and actions

With the increased availability of free medical information on the internet, people are frequently being more proactive with their expectations of treatment. This is applicable to the EBP model because it considers people's expectations as relevant to current evidence, available resources and the clinical setting. One example is the 'Ley Ricarte Soto', a new piece of legislation named after a journalist who led a social movement for the universal right to access expensive medication that had no coverage – either due to high treatment costs and/or due to low prevalence of the disorder – and was thus not considered as a treatment option. Another example is the Observatorio de derechos humanos de las personas con discapacidad mental [Human Rights Observatory for Patients with Mental Illness], a non-profit organisation for the assessment and promotion of best practices for psychiatric treatment and social inclusion of people with severe mental illnesses (<http://www.observatoriodiscapacidadmental.cl/>).

Nonetheless, a clear understanding of the concept of evidence in Chile is still vague. A study conducted in primary care showed that this understanding differed according to professional background and role in the health system. For health budget managers, evidence was considered appropriate when it had an impact on cost reduction. For doctors working in public health policies, the evidence was related to social impact. For doctors working in primary care, evidence was mainly associated to clinical experience. In general, among the respondents, both the political context and doctor–patient relationship were considered

more relevant than the scientific knowledge advocated by EBM (Bedregal & Ferlie, 2001).

Conclusion

EBM has been adopted in Chile as an important strategy for the proper assessment of healthcare provision and this has had an impact on GES development, which tends to standardise interventions both in the private and public sector. Many difficulties regarding its implementation need to be addressed. The leading universities in Chile have incorporated EBM in their curriculum and a novel database has been created locally as a new tool for the EBM community. Nevertheless, the concept of evidence is still vague among healthcare providers and it seems to be strongly influenced by the political context and issues related to doctor–patient relationships.

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