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The clinical psychologist and evidence-based practice in Mexico: Passing fad or pressing need?

Psicología clínica y la práctica basada en la evidencia en México: ¿moda pasajera o necesidad apremiante?

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SUMMARY

Introduction: *Implementing Evidence-based practices entails a demand not only on the clinician and professional training but also a demand on the institutional economic, material, and human resources. Such demands can be either facilitator of the process or, in some cases, major barriers.*

Objective: *Present an overview of the literature on EBP in Psychology in Mexico.*
Method: *A computerized search of articles in databases such as Classification System for Mexican Science and Technology Journals, EBSCO, ELSEVIER, Latindex, PubMed-NCBI, REDALYC, Scielo Mexico, SPRINGER, and WILEY; the journals Mental Health, Public Health and the Mexican Journal of Behavior Analysis was carried out, as well as the search of government documents in which policies were described of health.*
Results: *In Mexico, studies on EBP for Psychology are scarce, which may contribute to the potential barrier when setting up the stage to implement an EBP in usual care settings.*
Conclusion*: Analyze the Mexican context of barriers, facilitators, and areas of opportunity to implement and disseminate EBP among Mexican psychologists who perform clinical work. It describes how our team has implemented successfully the so-called "Brief Intervention Program for Adolescents Who Initiate the Use of Alcohol and Other Drugs".*

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RESUMEN

Introducción: *La implementación de la Práctica con Base en la Evidencia implica una demanda no solo en la formación profesional y clínica, sino también en recursos institucionales económicos, materiales y humanos. Tales demandas pueden ser facilitadoras*

del proceso o en algunos casos, grandes barreras.
Objetivo: *Presentar una visión general de la literatura sobre PBE en Psicología en México.*
Método: *Se realizó una búsqueda computarizada de artículos en bases de datos, tales como el Sistema de Clasificación de Revistas Mexicanas de Ciencia y Tecnología, EBSCO, ELSEVIER, Latindex, PubMed-NCBI, REDALYC, Scielo Mexico, SPRINGER and WILEY; las revistas Salud Mental, Salud Pública y Mexicana de Análisis de la Conducta, además se buscó en documentos gubernamentales de políticas donde se aborda el tema de salud.*
Resultados: *En México los estudios sobre PBE en Psicología son escasos, lo que puede contribuir a la barrera potencial para implementar una PBE en entornos de atención habitual.*
Conclusión: *Se analiza el contexto mexicano de barreras, facilitadores y áreas de oportunidad para implementar y diseminar PBE entre psicólogos mexicanos que realizan trabajo clínico y describir cómo nuestro equipo ha implementado con éxito el llamado "Programa de intervención breve para adolescentes que inician el consumo de alcohol y otras drogas".*

Palabras clave: *Adopción, adolescentes, tratamientos con base en la evidencia, transferencia del conocimiento.*

INTRODUCTION

Psychology has an important place in the various mental health treatments based on evidence. Psychology is a science in which more and more interventions are offered for many problems of social relevance, such as the use of addictive substances, parenting, antisocial behavior, chronic diseases, and eating disorders, among others. Therefore, it is important to bridge the gap between the treatments that have been positively evaluated and the decision-makers and health service providers, so that the population benefits from better services (1,2).

Evidence-based practice (EBP) is a decision-making and action process that health professionals must take to select the best evidence available for the care of social problems (3).

Thus, knowing "the best available evidence" implies that different classifications are based on the methods for the evaluation of the treatment. Although, it has been privileged as the best evidence, that derived from the use of randomized clinical trials with group designs and sophisticated statistical analysis (4,5), according to the proposed guidelines for evidence-based medicine, however, in psychology there are different methods of evaluation of treatments, in addition to the group designs, such the single-case experimental designs, that they have high control of variables, makes it viable not only demonstrate the impact of the treatment, but also the specific conditions in which it works or not (6,7). EBP emphasizes the rigorous evaluation of the treatments or interventions offered to the population; consider the psychologist interest, along with his experience in the clinical field, population needs, and the institutional, social and professional resources for the purpose maximizes the solutions to the problems presented by people (8-10).

Undoubtedly, the evaluation of the effectiveness of treatments is a fundamental part of scientific psychology. Therefore, the professional in charge of providing the service to the population must know about the programs that have these criteria and discriminate what level of evidence they have verified. Only in this way will we pay attention to what good praxis means and to the commitment, we must take psychological science to society. In this context, it is not only about demonstrating that a therapy is effective for a certain behavior, but about also showing that this alternative is the best and in the best conditions (11-13).

The above can be summarized with these three basic questions about the quality assessment of selected treatments:

- What are the results? (Magnitude of the treatment effect).
- Is there validity in the results of the study? (Internal validity)
- Can the results help the patient's treatment? Are the results applicable to the clinical context? Is the procedure replicable? (External validity)

These questions constitute the essence of the levels of evidence, which in the evaluations of the treatments must be clearly demonstrated (14;15).

Unfortunately, the reality at work in much of the psychologists' community in Mexico and Latin America is different given the limited

regulation for a clinical psychology practice. Many psychologists have chosen to stay away from EBP, using only their intuition in the clinical setting before any treatment even though it is effective (16,17). This situation makes it necessary to disseminate the benefits of EBP even more widely among the psychologist community and the public since everyone has the right to request treatment options that have been scientifically proven to be effective.

Psychology, like other areas of the health sector, requires reliable tools that provide greater certainty to professionals and patients (4,10,17), and that facilitate and ensure the development and application of valid diagnoses and interventions, improving decision-making in clinical problems.

Given this scenario, this article seeks to provide the best arguments to show that EBP is *not* a momentary "trending topic", but a concept that confirms the scientific nature of Psychology, and demands an optimal combination of research, professional experience, user preferences, and values, and available resources.

METHODS

A computerized search of articles in databases such as Classification System for Mexican Science and Technology Journals, EBSCO, ELSEVIER, Latindex, PubMed-NCBI, REDALYC, Scielo Mexico, SPRINGER, and WILEY; the journals Mental Health, Public Health and the Mexican Journal of Behavior Analysis was carried out, as well as the search of government documents in which policies were described of health. With regarding the selection of the works, the following aspects were taken into account: theoretical articles on EBP, studies that address the barriers to the implementation of EBP in institutional settings; the therapists and their attitude towards EBP and treatments in the area of addictions. Documents were considered in Spanish and English. The following were used as descriptors: Evidence-Based Practice; barriers and facilitators; adoption of treatments, health policies; technology transfer.

RESULTS

1. Evidence-Based Practice and Health Policies in Mexico

One of the first challenges faced by Mexico is the development and promotion of regional standards for the evaluation of various disorders, based on current scientific evidence. For this reason, there is a need for a debate on the official guidelines for evaluation, since even local and regional experts have not reached a consensus on this issue. In the specific case of intellectual development disorders, the psychiatric diagnostic guidelines produced in Latin America lack norms to distinguish their different gradients (19).

The process of evaluating behavioral disorders or dysfunctional behaviors is as important as the intervention itself; it forms part of the procedures considered as EBP, because the instruments and strategies used must undergo the necessary tests for their validation and reliability, in such a way that they allow the health professional to describe the context of the behavior and explain its functionality so that at the same time, it serves as a basis for making the best decisions about the available treatments.

According to Labrador (20), an adequate and specific evaluation must identify the behaviors to be modified and their determinants, establishing from these data the objective of the treatment. This step implies that the psychologist possesses sufficient tools for the selection of instruments measured with scientific evidence that allows him to determine the priority behavior of attention.

In Latin America, various psychological tests used lack the scales or assessment parameters adapted for the countries of this region, in many cases using scales from Spain or the United States whose population has characteristics different from ours.

In addition to the initial evaluation, Labrador (20) emphasizes ongoing evaluation to determine the effects that the intervention or treatment is producing; in this way, the evaluation also becomes an intervention regulation. If there is *no* adequate monitoring of the effects that the treatment components are producing, there is a risk of *not* identifying whether positive changes

are occurring in the user or not benefiting him, which would lead to adjustments in the intervention (10).

This systematic way of working ensures effectiveness for people using psychological services, by proceeding objectively and systematically. This whole process is part of the EBP, offering evidence of the results that are being produced, leaving subjectivity aside to evaluate the effects of psychological interventions.

Another fundamental aspect of the EBP issue is the unequal and inefficient distribution of resources to deal with the enormous burden of mental disorders in many Latin American countries. For this reason, the Plan of Action on Mental Health was developed to favor people with mental, neurological, or substance use disorders (21). This intervention guide provides evidence-based recommendations, which have been developed using a method called Evaluation Rating, Development and Evaluation of Recommendations.

However, the fact that this plan is available in Latin America does not mean that it is being adopted where it is intended to benefit. Thus, there is still a gap between scientific research findings and decision-makers. For example, in Mexico, a manual of this plan was published in 2001 and reprinted in 2002 that integrated information on mental health problems and its historical background, but during the research, it was the only information that was found available, no document was found on its procedures, methods of dissemination, or the results obtained from its implementation (22).

The Plan of Action on Mental Health (21) was developed because various mental health conditions of the Latin American population are a source of concern. These include depression, psychosis, bipolar disorder, epilepsy, developmental and behavioral disorder of children and adolescents, dementia, alcohol and drug abuse, and self-harm or suicidal behavior. These conditions are considered a priority because they represent an enormous burden in terms of mortality, morbidity, or disability, with high economic costs, and are often related to human rights violations.

For this reason, it is alarming that the people who require it are not benefiting from the intervention because they are unable to reach the target population; this shows that there is still work to be done on the issue of the gap between researchers who generate scientific evidence and health policy decision-makers.

2. Institutional, Human Resources, and User Variables: Barriers or Facilitators?

In Mexico, the EBP issue is relatively new in the field of mental health, thus, it has not been easy for health professionals and health policymakers to adopt those treatments that have shown efficacy in scientific studies.

Some barriers complicate decision-making based on scientific knowledge. One obstacle to innovation in the field of psychological treatment research is the branding of psychological interventions, with the accompanying restrictions due to intellectual property issues (23). This causes delays in the knowledge of what works in psychology and that the treatments in psychology are considered a company for monetary gain. Also, training in several of these programs is expensive for clinicians and health institutions in Mexico and Latin America.

In addition, decisions about the treatments that will be implemented must be based on scientific evidence, which may also hinder the adoption and correct use of said knowledge. The former refers mainly to professionals and institutions, while the latter also includes user variables.

Although there are numerous studies on evaluating the effectiveness of intervention programs (24-27), there are few studies in Mexico on variables related to the process of dissemination and adoption of such interventions, which in itself constitutes a barrier for these interventions to be used in clinical settings.

A first barrier has to do with the access that clinicians have to information about the scientific evidence of interventions. A systematic review in Latin America, focused on EBP during 2003-2013, in both Spanish and English language. They found 41 papers focused on this topic, of which 56 % were conceptual papers, while 26 % and 20 % referred to meta-analysis and field studies, respectively. Of all these, 49 % belonged to the

clinical field and only 12 % to the health field, the rest to educational psychology and the training of the psychologist (28).

This suggests a low possibility that health professionals have access to up-to-date knowledge about best intervention practices and therefore a low possibility of EBP.

A study with therapists from the State of Baja California, Mexico, finding that only 23 % of them read scientific articles and apply the knowledge in their clinical practice; however, this data contrasts with how therapists access this information since half of the study participants employ generic search engines and less than half use specialized databases, which makes the criteria of therapists ambiguous for what they consider to be a scientific work (29).

The foregoing points to the need to make innovations accessible to clinicians, using not only scientific articles but also printed and electronic dissemination strategies, as well as the creation of forums or spaces for experience exchange in program implementation.

Another dissemination strategy used in Mexico by mental health researchers is printed and electronic manuals and online courses, which have been financed by the Federal Government and civil associations.

In 2011, the National Center for the Prevention and Control of Addictions (CENADIC) together with researchers from the National Autonomous University of Mexico, launched the use of a platform to train therapists from Medical Specialty Units-Addiction Prevention Centers (UNEME-CAPA, by initials in Spanish), to facilitate the process of dissemination and adoption of interventions for substance use and problem behavior in different populations (30).

The training lasted 12 months and included information on implementation, evidence of the effectiveness of the programs, and finally the supervision-evaluation of therapists. However, one of the barriers during the implementation of this dissemination tool was access to the Internet in communities where there is a lack of adequate communication services, so although online work can favor the cost-effective process of training, it does not guarantee that the information reaches everyone as expected.

On the other hand, in addition to the resource barriers for accessing information, there are other barriers related to therapists and clinicians, which have influenced the process of dissemination and implementation of interventions.

Traditionally, it has been assumed that research and practice in Psychology are not related and that researchers pay little attention to making evident the applicability of their findings in "real" context, assuming that once knowledge is generated, it must naturally reach its users (31); in turn, clinicians may perceive that the research systematic has little validity given the variable control that characterizes it as if it were a defect and not a virtue; thus starting a split between researchers and clinicians.

These perceptions are influencing the interest of both in carrying out processes of dissemination and program adoption based on scientific knowledge.

According to Rogers (32), therapists' attitudes and willingness to change, as well as their trust in programs, can mediate this process of dissemination and adoption.

In a study carried out by Véliz (33) with therapists from all over the country, who implemented the PIBA in the UNEME-CAPA, it was reported that 100 % of the participants know the manuals, but only 64 % are willing to implement the program in their clinical practice. This makes it clear that the mere dissemination of knowledge is not enough but requires that such dissemination; consider the needs of clinicians and users.

Rogers (32) proposes that those programs that are perceived as simple and flexible are more likely to be adopted, in this sense, Véliz (33) reports that 80 % of the participants evaluate the manuals as rigid in their structure and that they do not consider the individuality of the users. Given this scenario, the adoption of programs by clinicians is unlikely, despite being part of the health policy.

About, several authors (34) have pointed out the importance of the therapists perceiving that a certain package of intervention techniques is useful for the attention of diverse problems because in it also lies its flexibility and the practical utility in the scenarios when demanding a

minor use of human, material, and time resources.

The above data contrasts with that reported by Horigian et al. (35), in a study that evaluated barriers and attitudes toward EBP by eight managers and forty clinicians dedicated to the care of addictive behaviors, finding that managers had lower resistance to EBP compared to clinicians, however, in both cases the provision was high. Another fact of this study is that participants are more willing to implement cognitive-behavioral therapies and motivational interventions, which more often report data on their efficacy.

This contrasts with what was found in a qualitative study (36), conducted with therapists, researchers, and managers, on the barriers to adopting scientifically validated interventions, finding that a barrier mentioned by the participants is theoretical training, which often differs from cognitive-behavioral or rather, training in this approach is deficient. In this regard, therapists report a need for more training in the approach, while managers report that therapists are unwilling to use it.

This indicates that there are institutional barriers that also affect the process of dissemination and adoption, such as training and updating, economic, material, and human resources.

Vargas (29) analyzed contextual elements that could facilitate or hinder EBP, finding that an important variable is a demand for such context to implement treatments with scientific evidence, so that if the institutional demand is low, there will be fewer possibilities of adoption, as it happened with the programs that were proposed by CENADIC, as part of the health policy on addictions at the national level and in the case of Baja California, Mexico.

Therefore, to achieve the implementation of scientifically validated programs in clinical settings, it is necessary to establish contact with the institutions to assess their conditions, needs, individual, economic and social capacities, to subsequently make the adaptations of the original program to these conditions (37); however, this may entail costs in terms of time and money, which can lead clinicians to opt for models designed outside our context and make some adaptations to it in an intuitive and unsystematic way or, in the worst-case scenario, to try to implement it without adaptations despite the low probability of success.

Griner and Smith (38) carried out a meta-analysis of programs that considered cultural adaptations to be implemented with different groups considered *minorities or special populations*, finding that one of the main adaptations is in terms of language, and report that those interventions that were adapted in a systematic and not intuitive way, obtained results four times more effective than those that were not adapted for the population. It is noteworthy that of the studies reviewed, although the Latino population was taken into account, the adaptations were made to be implemented in the same country in which they were designed, which implies special social and institutional conditions for the adaptations to be implemented properly.

In this sense, for Mexico and Latin America, another barrier to the implementation of programs with scientific evidence is the lack of human and economic resources. In this regard, Horigian (35) emphasizes the lack of medical personnel and access to training and updating of professionals as well as the limited time for the implementation of innovations. In this sense, Martínez (36) it was reported that an important institutional barrier is a time that therapists have to serve each user, given the number of activities they must perform, so it is often difficult to see users weekly or fully implement the program; In addition, the user must perform bureaucratic procedures to provide the service.

In this regard, some research groups that design programs in Mexico work to ensure the appropriate adoption of their programs.

Such is the case of Programa de Intervención Breve para Adolescentes [PIBA] (Brief Intervention Program for Adolescents).

In the case of this program, which was designed for and evaluated with the Mexican population, its dissemination and adoption have not had a very different scenario, because although for it to be implemented by clinicians, certification is not required. This seems to be a factor for the program not to be adopted; since despite being part of the health policy on addictions at the national level, therapists do not receive direct supervision of the integrity or fidelity with which

it is implemented.

Another variable that should be considered in the process of disseminating interventions with scientific evidence is access to health services by the population, given their characteristics. One of them is the low-risk perception, which increases the possibility that they may engage in problematic behaviors such as substance use or antisocial behavior, seeing it as something normative that does not require psychological attention, which makes it difficult for adolescents to seek some kind of support during this stage.

According to a study carried out with adolescents in Mexico City (37-39), only one out of every seven adolescents with mental health problems has received any type of attention in this regard, and of these, only 50 % have received care considered to be minimally adequate; besides, adolescents who seek support from mental health professionals are those with substance abuse problems.

This data is important for EBP focused on this population, given the number of services they have access to. This same study points out the importance of implementing programs within schools that are provided by school personnel or health professionals within this context, to increase access to mental health services for this population.

In the case of the adult population, it has been reported that dropout treatments must be to the low perception of risk of continuing consumption when they do not perceive changes due to attending treatment or to lack of economic resources (40); another variable are the beliefs about treatment goals (41).

On the other hand, that the characteristics of the users are different from those with valid intervention, which is a fundamental element to achieve the EBP (36).

3. Prospective for Dissemination and Adoption of Interventions with Scientific Evidence.

Conducting EBP that translates into a process of dissemination and adoption of interventions that improve the quality of life for adolescents, has not been easy given the above-mentioned barriers (42). However, in Mexico, work on this matter is recent, which indicates an increase in the interest of researchers in making knowledge accessible to clinicians and, above all, to adolescents who are the beneficiaries of the advancements.

We also see a pressing need for multiple solutions, given the scale of the challenge ahead. A range of approaches could be valuable in this endeavor, including the dissemination of evidence-based therapies and increasing the accessibility of evidence-based psychotherapies. Therefore, although we see the need for a multipronged approach to tackling mental disorders worldwide, we argue that the development of new psychological treatments is one of the most promising approaches, especially given the scale of the problem of mental disorders from a public health perspective.

Given that one of the main problems has been the lack of financial resources for training, supervision, and implementation of programs, one way to do this is to continue collaborative work with government and civil associations; yet another very important way is the formation of research networks with national and foreign researchers as well as with clinicians in charge of implementation.

In addition, researchers from PIBA, the Autonomous University of Aguascalientes, the National Autonomous University of Mexico, and the Autonomous University of Baja California, continue to work to promote EBP in the dissemination and adoption of interventions, through ongoing training and communication with health professionals throughout the country, which could also facilitate access to adolescent mental health services.

However, it should be noted that in the previous cases, the efforts for the dissemination and adoption, as well as the training and education for EBP that this implies, have focused on those who are already health professionals, whose personal characteristics sometimes make efficient adoption unlikely. In this sense, a target population may be future professionals or psychologists in training.

To guarantee that the implementation of programs based on scientific evidence is not just a trend or part of a project or policy, it is essential to have an impact on the training

of psychologists, promoting the conditions for accessing knowledge, in a time when this is becoming easier due to information and communication technologies and, subsequently, favoring decision making, in addition to starting with the training of implementation skills that allow them to establish the process that goes from the "theory to practice".

CONCLUSION

The objective of this article was to present arguments to show why EBP cannot be considered a simple trend topic but must be considered as a need to provide a better health service to Mexican society that requires solving urgent problems such as depression, addictions, healthy eating, parenting, among others. Among the main findings of the literature review, it was found that EBP represents a challenge for researchers who require treatment to be disseminated, but also for therapists to be trained and to implement it in health institutions.

It should be clear to those of us involved in psychology, that it is a science and as such requires a greater effort to have solid evidence to sustain the interventions offered to the population. In addition, it is required that the psychology professional becomes aware of the importance of developing a critical judgment to determine what is the best treatment for their patients, that they know the most appropriate instruments for a pertinent evaluation.

The ability to assess in a tangible and meaningful way whether the goal of improving treatments has been achieved remains a challenge for the field. The initial indicator of success is within the outcomes of the treatment trial (ie, whether the effect sizes indicate improved efficacy of novel and refined psychological interventions). In the longer term, meta-analyses will outline whether new treatment approaches have improved effectiveness, and thus, in turn, contribute to reducing the prevalence and mental problem.

We see EBP as a substantial global challenge, but at the same time, we recognize that nowadays we demand global attention and action, including advance psychological treatments, so that more effective interventions will serve as an essential part of our set of approaches that are needed to make an impact upon the burden of mental disorders worldwide and improve lives.

We acknowledge that our call for developments in EBP and psychological treatments is but one endeavor in the context of other similar timely initiatives. For example, mental health is increasingly being recognized as an area that needs to move forward on a global scale. Furthermore, psychological interventions can be applied not only to mental disorders but have been increasing in use across a range of areas e.g., in changing health behavior, managing the psychological aspects and effects of physical health problems (i.e., pain management and somatic concerns), and instituting organizational change. Clinicians, researchers, patients, careers, funders, commissioners, managers, policy planners, change experts, and the public all have a part to play in innovating psychological therapies, and a focus on any one of the ideas presented to bring about substantial and much-needed improvements.

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