

Development of national capabilities in low and middle income countries for research in child mental health

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Worldwide estimates indicate that 13 % of children and adolescents suffer from impairing mental disorders [14] and approximately 60 % of adolescents report significant levels of symptoms [10]. Most of what we know about these disorders come from high-income countries (HICs), home of only approximately 10 % of the total population of children in the world [12]. Despite only a partial picture of the global child mental health scenario, built with data from the more affluent environments [4], it is now possible to conclude that mental and substance use disorders are the leading cause of disability in children and adolescents [7]. The complete picture, with national data from low and middle income countries (LMICs) included, would certainly depict a more vulnerable scenario. In fact, due to population growth and under-resourced health care systems, the burden of mental health and substance-use disorders is expected to further increase worldwide in the next decades, and the steepest rise is predicted to occur in LMICs [7].

Considering the evolving adverse scenario of child mental health across the globe, international calls and initiatives have been proposed and implemented aiming to foster the development of preventive and treatment interventions, health-system strengthening, and policymaking [12, 13]. Importantly, in LMICs, the development and consolidation of in-country research capabilities that are able to identify local specificities and connect to commonalities across countries, both in terms of etiology, biological substrate, clinical presentation, treatment response, long-term trajectories of disorders, and also health system organization, are

key to promote worldwide improvements [1, 6]. The current issue of the *European Child and Adolescent Psychiatry* brings three examples of two upper middle income countries—Brazil and Mexico—where local research groups have been producing novel and relevant findings to the international community and influencing organization of local health systems and policymakers.

In Brazil, the National Institute of Developmental Psychiatry for Children and Adolescents (<http://inpd.org.br>) congregates researchers from different universities who together have launched cross-sectional studies, a large community cohort with extensive phenotype data and neuroimaging and genomic information, a birth cohort, and a home-visiting intervention for high-risk pregnant youth. In this issue, two studies from the Brazilian Institute illustrate their work. Fortes et al. [8] studied prevalence and correlates of specific learning disorders (SLDs) in 1618 children and adolescents from four different cities, each one in a different geographic area of Brazil (which differs markedly between them in broad socioeconomic and cultural aspects). Prevalence estimates found were 7.6 % for SLD with global impairment, 5.4 % for SLD with impairment in writing, 6.0 % for SLD with impairment in arithmetic, and 7.5 % for SLD with impairment in reading. ADHD was the only comorbid mental disorder significantly more frequent in children with SLD with global impairment, and among other SLDs, only SLD with impairment in arithmetic presented higher rates of comorbidity, specifically of anxiety disorders. Rates of SLD with global impairment were associated with age, sex, SES, and the city, and estimates based on DSM-IV criteria were lower than those based on DSM-5 criteria. This study suggests that commonalities and specificities on SLDs are identified across different regions within the country and according to the literature, between countries. To further understand the nature of these findings

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and refine the identification process of children with SLDs in specific contexts, the authors suggest that normative data based on local representative samples are urgently required.

In the second Brazilian study, Alvarenga et al. [2] analyzed baseline data from a large community cohort of 2512 children who are being extensively studied over time. They report a prevalence rate of 3.1 % of children with obsessive–compulsive disorder (OCD) and 19.4 % of children with obsessive–compulsive symptoms (OCS) in the sample. Results indicate that the presence of OCS was associated with increased psychopathology, with a similar profile but less severe of those with OCD, suggesting the existence of a continuum between symptoms and disorder. These findings are consistent with a growing literature showing that individuals with no mental disorders and disorders other than OCD may have obsessions and compulsions and that symptoms may be precursors of the full-blown disorder (Fullana et al. [9]).

These studies are aligned with one mission of the Brazilian Institute: to characterize developmental trajectories of mental disorders and identify biological signatures or intermediate phenotypes to inform early interventions. Data generated in Brazil and other specific settings will likely contribute to the achievement of these ambitious goals, and in a broader context, when used to inform environmental, genetic or biological specificities or communalities, or part of collaborations articulated with international and comprehensive efforts, that the data will certainly reach its higher potential.

In Mexico, the National Institute of Psychiatry “Ramón de la Fuente Muñiz” (<http://www.inprf.gob.mx>) has the mission of improving mental health of the Mexican population by conducting high-quality research, providing clinical care, and training new professionals. The institute also participates in the development of new policies, and has been playing an important role internationally particularly in the fields of epidemiology and substance use disorders. In this issue, a study illustrates their important contribution to the field. Benjet et al. [5] followed-up in early adulthood (ages 19–26 years) a sample of individuals initially evaluated in adolescence (ages 12–17 years), representing the population of adolescents from the Mexico City Metropolitan area. The authors were able to assess, 8 years apart, 90 % of the sample, which is a sign of the excellence of their work given the long follow-up period and the complexity of the metropolitan area. They reported that approximately 38 % of individuals experienced the onset of a new disorder in early adulthood, particularly alcohol abuse and major depression, and 28 % had incident service use.

Longitudinal studies are scarce in LMICs, and these findings are the first replication in Latin America of reports from HICs indicating that a significant proportion of the population has suffered from a mental disorder by early

adulthood [11]. The authors suggest that mental disorders should be seen as nearly universal experiences over the life course, varying in severity and persistence, and thus requiring variable levels of attention.

It is noteworthy that 50 % of original articles published in this issue of *European Child and Adolescent Psychiatry* have been conducted in LMICs from Latin America. This represents a growing global influence of the journal and a strengthened local capacity in these countries to produce novel and relevant findings for an international audience. Although it is encouraging to observe the local progress in several countries, especially in upper middle-income countries, their relative contribution to global mental health research is still very modest. Also, patterns of progress are not consistent across the LMICs, and most of low and middle-low income countries have very scarce—if any—research capabilities. Frameworks for research-capacity building at the individual, institutional, and national levels have been described [6] and the international scientific community can play important roles in fostering these processes. The challenges and opportunities ahead are significant [3, 12], but the scientific synergies created by networks, mentoring, and research collaborations have huge potentials to promote learning, growth and development, for all parties involved. Children across the globe will appreciate it.

Compliance with ethical standards

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