

How is Brazilian's mental health? The importance of birth cohorts for better understanding the problem

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doi: 10.1590/0102-311X00005020

Mental disorders now constitute one of the main challenges on the health agenda in both developed and developing countries, placing an important burden on public services. An estimated 30% of adults worldwide meet the diagnostic criteria for any mental disorder, and some 80% of those who suffer mental disorders live in low and middle-income countries¹. A study on the global burden of diseases showed that worldwide, mental disorders account for 32.4% of years of life lost to disability². According to recent estimates in Brazil, depressive and anxiety disorders were the fifth and sixth causes, respectively, of years of life lived with disability³. Studies in recent decades have also evidenced that children and adolescents have experienced a change in patterns of physical and psychological illness, with a considerable increase in the prevalence of emotional and behavioral problems. A recent nationwide school-based study in Brazil found that 30% of adolescents presented common mental disorders, characterized by symptoms of anxiety, depression, and non-specific somatic complaints⁴, while a population-based study in São Paulo (*São Paulo Megacity Mental Health Study*)⁵ found that mean age at onset of psychiatric disorders is earlier for anxiety disorders (13 years) and impulsivity disorders (14 years), when compared to substance abuse disorders (24 years) and mood disorders (36 years). Such disorders represent an important burden of disease and result in harm to school life and family and social relations for these children and adolescents. Mental health problems are also highly persistent, so that an important share of adolescents go on to suffer some resulting impairment in adulthood⁵.

Brazil displays some demographic and economic characteristics that have been identified consistently as the backdrop to the increased incidence and persistence of mental disorders in the general population³. Profound changes in recent decades, with rapid urbanization of the population and resulting increase in population contingents living on the periphery of large cities or in communities underserved by government and vulnerable to urban violence, women's mass entry into the labor market (without the necessary increase in social support such as maternity leave, daycare, etc. and leading to changes in the family and social architecture), as well as successive economic crises and precarization of work, among others, have been identified as factors that have deeply changed Brazilians'

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lifestyle and increased inequality and social adversity, producing high rates of mental illness⁶. Adolescence and its transition to adulthood are known as one of the phases with the greatest changes in people's lives. In addition to hormonal and social changes, which vary between cultures, exposure to hostile and degraded school and urban environments and rising neighborhood, school, and even domestic violence, among other factors, can lead to situations and/or pressures that are often difficult for young people to withstand⁷. Understanding the role of exposure to these factors in the development of mental disorders in children and adolescents can help us gauge the degree to which these problems carry into adulthood, since impairments in early life can shape life course disabilities.

The literature on the main risk factors in the incidence of mental disorders in adults consistently points to the role of social determinants, indicating that women and individuals that accumulate adverse social, family, and environmental situations are at greatest risk⁸. A systematic review of studies in low and middle-income countries reported that more than 70% of the 115 reviewed articles found an association between various levels of poverty and common mental disorders⁹. However, there are still important gaps in knowledge on the main risk factors for incidence of mental disorders in children and adolescents and the factors involved in the persistence of such disorders in adulthood.

In Brazil, recent years have witnessed a growth in studies on the prevalence of mental disorders in the adult population, including population-based studies, featuring the *Brazilian National Health Survey* (PNS in Portuguese) in 2013, which assessed the prevalence of depression¹⁰, and the *São Paulo Megacity Mental Health Survey*⁵. These studies provided important and unprecedented evidence on the mental health situation of Brazil's general population. It is thus hoped that such surveys will be conducted periodically, allowing the assessment of trends in mental disorders. As for cohort studies in adults, the main studies have been developed in specific populations like public employees (*Pro-Health Study* and *Longitudinal Study of Adult Health – ELSA-Brasil*), among others^{11,12}. Such studies provide important evidence on the main risk factors for mental disorders, but they are limited in scope, since such population groups display profiles and life and health conditions that do not represent the overall population.

As for studies on children and adolescents, the *Study of Cardiovascular Risks in Adolescents* (ERICA) was the first nationwide school-based study on the prevalence of common mental disorders in adolescents (12 to 17 years of age)⁴. Data from the various editions of the *Brazilian National Survey of School Health* (PeNSE) have also provided important evidence on alcohol and drug use, besides including questions on feelings of loneliness, sleep problems, and close friends as proxies for mental health in children and adolescents¹³. However, cohort studies in this age bracket are still limited, and most have been conducted in specific and school-based populations^{14,15}. The birth cohorts thus deserve attention since they have investigated the incidence of mental disorders, among other health problems. Such studies display ideal conditions for investigating the life course trajectory and main risk factors for such disorders. The cohorts conducted in the cities of Pelotas (1982, 1993, and 2004)^{7,16,17}, Ribeirão Preto (1978/1979 and 1994), and São Luís (1997/1998)^{18,19} have furnished a body of evidence on the role of various socioeconomic factors, including social adversity, socioenvironmental inequalities, socioeconomic status at birth, social mobility, lifestyle, etc., and mental health, including substance abuse, in young people and adults.

The article by Orellana et al.²⁰, published in this issue of CSP, analyzed data collected at birth and in different life stages from a consortium of five cohorts of adolescents, young

people, and adults in Pelotas, Ribeirão Preto, and São Luís (RPS) to assess the prevalence of mental disorders according to sex, family income, and maternal schooling. The initiative is unprecedented in Brazil, grouping data from different age brackets and regions of the country with diverse socioeconomic characteristics and including data on a range of mental disorders assessed with standardized instruments validated for the Brazilian reality. The results point to high prevalence of major depression, suicide risk, social phobia, and generalized anxiety in these populations and represent an important milestone in knowledge of these disorders in Brazil's national scenario and their importance as a public health problem. The results also call attention to the consistency with findings from studies in other middle and low-income countries, as well as those of a systematic review by the World Health Organization, and in Brazil, with the results of ERICA and PNS, showing that mental disorders are more prevalent in women and in individuals with lower socioeconomic status, independently of age and place of residence. The findings underscore the urgency of greater investments in mental health in Brazil in general, and especially greater attention to early life and adolescence, where the appearance of these disorders can lead to impairments in social and scholastic life and result in a chronic cycle of adversities throughout life.

Additional information

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