

# It is illegal to post this copyrighted PDF on any website. Is Psychiatric Epidemiology Still Counting?

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In October 1984, Daniel X. Freedman, the colorful and brilliant editor of *Archives of General Psychiatry*, published an article titled “Psychiatric Epidemiology Counts.”<sup>1</sup> This article announced the first results of the Epidemiologic Catchment Area (ECA) program, which he called “a comprehensive collaborative effort by scientists at the National Institute of Mental Health and in the field to assess the prevalence of mental disorders in the United States.”<sup>1(p931)</sup> The survey, he said, was a landmark in the American contribution to the psychiatric knowledge base. For the first time, he noted, mental health epidemiology results on rates and risk factors could be linked to ongoing and forthcoming research in biology, nosology, health services, etc, because the diagnostic criteria used in the ECA were the same as those used in clinical studies.

The use of structured diagnostic assessments in the community was noted as an advance. There were many who believed diagnoses could not be made in the community because subjects would not answer the questions. This belief was popular despite the fact that Kinsey had shown, over 2 decades before, that details of sexual behavior could be obtained in community samples. Of course, the rest is history, and soon after, more comprehensive surveys using the same principles of clinical criteria but including national and not regional sampling, focusing on minorities, and later carried out worldwide were launched.<sup>2-9</sup> The developments were accelerated by recognition of the importance of the data for monitoring outbreaks, defining risks, planning health services, and timing prevention efforts.

Over the years, the epidemiology of the major clinical disorders became basic common knowledge, cited in textbooks, used to identify high-risk groups, and serving as the basis for the move toward focusing on mental disorders in children and adolescents since most disorders were shown to begin then. Psychiatric epidemiology as reflected in large numbers of country surveys became accepted practice, and the studies became larger, more methodologically sound, and cross-national. A move in psychiatric epidemiology toward translational studies occurred.<sup>10</sup> Thus, it came as a surprise to read Moreira and colleagues’ “Review and Meta-Analysis

of Epidemiologic Studies of Adult Bipolar Disorder.”<sup>11</sup> Even more surprising was that the review qualifies for inclusion in JCP’s Early Career Psychiatrists section. The younger generation is discovering the past.

How does the meta-analysis of bipolar disorder prevalence fit in with what we know? First, the authors have done a huge amount of work in compiling data from 85 studies from 44 countries covering over 67,000 cases with bipolar disorder and carried out over 32 years. The statistics were sophisticated, and methods for inclusion of studies were strict. The authors’ inclusion criteria for the review were studies published in English that reported prevalence rates for bipolar disorder or mania in subjects 18 years or older. It is not clear if case-control or treated prevalence studies may have been included or whether the analysis was restricted to community-based population studies that include treated and untreated cases. Treated prevalence studies could cause a problem for determining changes in rates over time. A treated sample may reflect change in treatment practices and not changes in rates by time.

What are the authors’ key findings? The lifetime prevalence of bipolar I disorder was 0.62%, with lower rates in Asia and Africa. These findings are consistent with the earliest ECA and cross-national findings in Asia.<sup>2,5</sup> Rates in Africa were available only recently, as the authors note, and may have affected rates in that more recent studies used broader diagnostic criteria.

The inclusion of bipolar disorder not otherwise studied (NOS) or bipolar spectrum disorders doubled the rates. This is no surprise. Bipolar spectrum disorders were not included in the early studies, and the prevalence of mild disorders is higher than that of bipolar disorder meeting full diagnostic criteria. The authors did not find a significant change in rates over 3 decades after controlling for design features. The authors did this analysis by controlling for the fact that some studies were nested within collaborative projects, and consequently shared design features, and looking at association between study year and rate of bipolar disorder. If design features were not controlled, there was a trend for an increase in rates, but this could be accounted for by inclusion of bipolar disorder NOS in more recent studies. I think that the jury is still out on whether rates have changed over time. In summary, the highest prevalence of bipolar disorder was in North and South America; Australia, Asia, and Africa had the lowest rates; and the Middle East and Europe were moderate. However, the age structure, including mortality rates, needs to be considered. The authors might in the future look at rates by gender or age at onset, as they may have found that the rates vary by country, but the gender ratio and age at onset do not. This would suggest similar

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illness across countries but different expression in rates due to a multitude of possible reasons. The authors might also look at rates by birth cohort. While the overall rates may not have changed by decade, some birth cohorts may have experienced increases.

Moreira et al have pointed out the complexity and methodological downsides of attempting to understand international rates of psychiatric disorders over time. They have collected a vast amount of data and have given it a good try.

So, to return to the question posed in the title of this commentary: Is psychiatric epidemiology still counting? The answer is yes, but it's becoming more difficult as the question is broadened to include more countries. Another question might be, "Should it count?" For that answer, I quote my late husband Gerald Klerman, who in 1990 wrote the following in reference to the need for a mechanism for monitoring

rates of psychiatric disorders to determine when epidemics are taking place: "In order to obtain truly accurate estimates of temporal changes, repeated sampling of large population groups...would be called for. Lest this be regarded as beyond practical and feasible resources, attention should be given to the extensive monitoring of labor data concerning employment status and indices of the economy...We now monitor vital statistics, that is, birth, death, marriage, divorces, but changes in the incidence and prevalence of symptoms and disorders are now technologically feasible with advanced techniques, screenings, and diagnoses."<sup>12</sup> Our ability to understand risks for psychiatric illness, to detect underserved persons, and to detect and prevent outbreaks might be greater if future epidemiology research includes regular monitoring of the rates of psychiatric disorders. Unless and until this happens, extensive meta-analysis as carried out by Moreira et al will suffice.

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