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Introduction

# What might be a history of psychiatric epidemiology? Towards a social history and conceptual account

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This supplement heralds the start of an interdisciplinary and international effort to trace the origins of psychiatric epidemiology. As a first step, these papers focus primarily on developments during the period 1945 to 1980, in the USA, UK and France, as well as internationally through the World Health Organization (WHO). A post-war modern epidemiology centred on risk factors emerged during this time.<sup>1</sup> One exemplar of a ground-breaking study that advanced psychiatric epidemiology along similar lines is sociologist Lee N Robins' 1960s investigation of the relationship between childhood behaviour problems and adult antisocial behaviour.<sup>2</sup> The papers herein, however, show that despite such exemplars, these developments were uneven and highly contested within the distinctive sphere of psychiatric epidemiology. Often the debates brought to light are still relevant today, and some have implications beyond psychiatric epidemiology.

Modern epidemiology's coming of age reflected faith in the 'emancipatory power'<sup>3</sup> of positivist science for the betterment of society, as articulated in the socialist vision of early British social medicine. Post-war epidemiology has been described as 'late modernist',<sup>3</sup> a continuation of the process emergent in 19th-century industrial nations through which probabilistic thinking and statistics became a legitimate and authoritative tool of social and political administration.<sup>4,5</sup> Late modernist epidemiology took root in wealthy nations with the post-industrial shift from

societies conceptualized as structured by social classes to the representation of such societies as composed of stratified social groups.<sup>3,6</sup> It also developed around what Jerry Morris called 'modern epidemics', from peptic ulcer to certain types of coronary heart disease, from the 'psycho-neuroses' to certain cancers.<sup>7</sup> With the advent of the new public health,<sup>8</sup> however, Morris's broader interest in 'ways of living' related to social conditions were to a great extent reduced and transformed to individual-level factors and lifestyle 'choices', and lifestyle medicine.

Within this larger narrative, the development of psychiatric epidemiology followed a particular path. Post-war psychiatric epidemiology remained stymied by practical obstacles and conceptual controversies over the very nature of mental health and mental illness, and their reality, as well as by the lack of a common language to describe such phenomena. Yet it also had the advantage of building upon an older alliance between social scientists and psychiatrists concerned with social conditions—poverty, urbanization, conflict, social mobility—although their perspectives varied. For example, mid-19th century US psychiatrists, who regularly reported statistics on asylum patients, including demographics, geographical characteristics and treatment outcomes, also contributed to constructing categories for the US Censuses. The 1840 Census was the first anywhere to enumerate "insane" individuals in the population.<sup>9</sup> Its data showed far more insanity among free Blacks than

enslaved ones or Whites, lending support to arguments that slavery was morally and intellectually beneficial. Edward Jarvis, the forefather of American psychiatric epidemiology, countered those claims when he re-examined the data and found them to be thoroughly flawed.<sup>10</sup> In the early 20th century, the Chicago School sociologists developed ecological studies of insanity.<sup>11</sup> Thus, social scientists and psychiatrists who constructed post-World War II psychiatric epidemiology in the USA and the UK were actually prolonging their forebears' concerns with welfare and government, the 'radical faith that quantitative research, when merged with administrative rationality, could replace politics'.<sup>12</sup>

The upward boundary of the post-war period coincides with psychiatric epidemiology's consolidation as a discipline. The launching, in 1980, of the third edition of the American Psychiatric Association's Diagnostic and Statistical Manual,<sup>13</sup> even though it is not the only major psychiatric classification system used internationally,<sup>14</sup> signalled a radical departure from the amorphous boundaries between symptoms and syndromes and the psychoanalytic perspectives of earlier versions of the DSM. Here was a temporary resolution to the troubling question of what exactly constituted psychiatry's object. In the intervening years, psychiatric epidemiology had struggled with the question of its legitimacy. The controversy over whether epidemiological methods could be applied to psychiatric categories traverses this period, in tandem with the question of what, exactly, is the 'mental', how it can be operationally determined (the 'caseness' issue) and how to estimate the unknown number of people affected by mental disorders who do not receive treatment or who do but outside hospitals—and hence are missed by decades of statistics based on psychiatric inpatients (the 'true prevalence' question). Within the USA and UK and internationally via the WHO, the post-war years shifted the terms of these debates and demarcated the boundaries of the fledgling discipline. Through the development of clearer categories and specific tests, many researchers eventually concurred that some degree of reliability could be established for diagnostic categories, even in the absence of biomarkers and a unified aetiological theory. In France<sup>15</sup> and Italy<sup>16</sup> however, the hardening of psychiatric categories, quantification and epidemiological studies were disputed or ignored within psychiatry.

The history presented here carries an important caveat, namely its limitations in time and place. Although the USA and UK dominated the discipline's development from 1945 to 1980—France provides a useful counterpoint—the nascent narrative in these articles as a whole remains incomplete in two ways. First, it ignores much early psychiatric epidemiology in European and other industrialized

nations. These include studies of what were called the 'genetical populations' (e.g. in Sweden, Denmark, Switzerland, Wales and elsewhere). With notable exceptions, these studies often had racist and eugenic overtones and were perhaps of more interest to the 'governors of society' than to psychiatrists.<sup>17</sup> Nonetheless, this line of work established a platform for later research on genetic and nongenetic determinants of psychiatric disorders. Traces of those histories, especially Northern European, show up at the international level (e.g. WHO),<sup>18</sup> but our language limitations prevented us from further exploring them. Nor were we able to locate historians working on those areas, despite extensive networking on our part.

Second, and more importantly, the history is thus far told from a standpoint anchored in wealthy countries. Not only does it leave out countries like Chile and Brazil, which in the same post-war period were producing a social medicine and epidemiology (and sometimes, as in Chile, psychiatric epidemiology) focused on structural determinants of health and later carried to other parts of Latin America.<sup>19</sup> It also ignores the conditions of production of such knowledge in relation to the colonial past. The burgeoning scholarship on colonial and post-colonial histories of psychiatry lacks a parallel scholarship on psychiatric epidemiology. Even the contribution of the WHO schizophrenia studies to psychiatric epidemiology<sup>18</sup> has yet to be examined from the perspective of local sites of knowledge production and psychiatric practice in Africa, Asia and elsewhere, despite the contributions of figures like TA Lambo<sup>20–23</sup> of Nigeria and TY Lin<sup>24–26</sup> of Taiwan to post-World War II psychiatry and epidemiology. This Supplement thus represents only the first phase of a programme that aims to ultimately encompass and learn from the broader history.

## Overview of the Supplement

Most of the articles herein share Grob's assertion that psychiatric epidemiology developed more slowly than general epidemiology yet has roots in the early 19th century. Attention has recently turned to proto-epidemiological texts,<sup>27,28</sup> and Grob himself has described, albeit briefly, American psychiatric epidemiology.<sup>12</sup> Others are beginning to address specific aspects of the field, and a scattering of partial memoirs and reflections of 'those who were there' while not analytical, exists.<sup>29,30</sup> The epidemiologists, historians, philosophers, anthropologists and sociologists who contributed to this Supplement have turned to archives, scientific publication and oral history to examine how psychiatric epidemiology was constructed both epistemologically and institutionally through the interaction of actors, institutions, practices, technologies and ideologies.

Anthropologist Lovell<sup>18</sup> examines the building of a canon for psychiatric epidemiology in the founding years of WHO. Initially, an idealist and amorphous notion of mental health rooted in post-war pacifism and brought to the Organization by WHO's first director, the Canadian psychiatrist Brock Chisolm, and the need to address the paucity and even absence of psychiatrists in developing countries took precedence over research priorities in WHO's mental health section. Through outside experts and with heavy funding from the US National Institute of Mental Health (NIMH), a research programme eventually took root. But the development of psychiatric epidemiology at WHO recapitulated the obstacles faced elsewhere, such as the lack of a common terminology and classification and the enumeration of 'cases' in terms of people who were institutionalized. It also struggled on the one hand with the question of particularism (examining cultural expressions and culturally-defined syndromes), including studies that 'racialized' the mind and behaviour, and on the other hand with attempts to establish the universality of mental illness. Finally, at WHO as elsewhere, experts questioned whether epidemiological methods could be applied to non-contagious disease, although epidemiologists had included ill mental health and mental illnesses as objects for that discipline.<sup>7</sup> The contagion thesis of behavioural pathologies was mobilized to counter this last doubt, while an international, agreed-upon psychiatric nosology was sought, mostly under British influence, to replace the largely ignored mental illness section of the WHO International Classification of Diseases (ICD). Despite divergent interests of the actors involved, local-global exchanges ultimately produced an epidemiological canon, through the WHO schizophrenia studies – proof of concept for an internationally applicable psychiatric epidemiology.

Historian Campbell's contribution<sup>2</sup> analyses the historical overlap between epidemiologists and aetiological production of knowledge about addictions and other mental disorders as a microcosm of the trajectory of psychiatric epidemiology, namely the shift in population studies from psychological scales to instruments generating discrete diagnoses. The continuous measures of psychological scales could be used to gauge mental distress, and thresholds could in turn indicate probable mental illness. These scales did not, however, indicate a particular diagnosis, and measures of nonspecific distress were not considered suitable for aetiological enquiry in an increasingly biologically-influenced psychiatry.<sup>31</sup> The culmination of the medical model in the DSM-III nosology and in the DSM-III-related interview schedule used for the Epidemiological Catchment Area (ECA) study of the same era resulted largely through the work of the 'St. Louis research group'

at Washington University Medical School and its New York collaborators at Columbia University's Psychiatric Institute. At the intersection of sociology and psychiatry, Lee Robins, subject of Campbell's article, exerted a broad influence, including on field study design, instrumentation, statistical validation and stabilization of techniques for ensuring the reliability of psychiatric diagnosis. Despite the fervent sociological imagination Robins brought to her research questions, resulting in highly counter-intuitive findings (such as that relapse was not a necessary characteristic of heroin dependence), by the 1980s the medical model had won over sociological concerns within psychiatric epidemiology.

Epidemiologist March and historian Oppenheimer<sup>32</sup> place two exemplars of descriptive epidemiology, the Midtown Manhattan and the Stirling County (Nova Scotia) community studies, in historical context, contrasting their environment-oriented concern for 'healthy states' with the narrower, medical model of post-1980 psychiatric epidemiology. They trace the linkages between Midtown and Stirling County, on the one hand; and Progressive Era ideals, the Mental Hygiene movement, Adolf Meyer's organic holism, the turn from mortality to morbidity and chronic illness in interwar scientific field studies, and screening techniques and brief treatments developed for the US military in World War II, on the other hand. Their paper best illustrates the 'caseness' problem in psychiatric epidemiology alluded to in all contributions to this Supplement. While the mental health scales or dimensional approach of studies like Midtown and Stirling County were superseded by the discrete categories of the DSM nosology beginning in the 1980s, the concomitant concern for well-being and debates over a return to dimensions in psychiatric classification hark back to this earlier history.

The article by sociologist Henckes<sup>15</sup> contends that in contrast to the USA and UK, a hegemonic 'trust in numbers'<sup>33</sup> was not present among post-war French psychiatrists. Despite efforts of the French National Health and Medical Research Institute, the development of psychiatric epidemiology in France stalled well into the 1980s. The anti-positivism stance of French public psychiatrists, psychoanalytic concerns with the patient as 'subject', humanism and a Marxist attention to social class and poverty quickly displaced the stirrings of Chicago School of Sociology-styled studies of mental disease. France thus presents a counter-example to the development of psychiatric epidemiology in the post-war years. In its place, however, it created a model community mental health programme through the '13th Arrondissement' experiment, an interdisciplinary effort based in schools and clinics, centered on children and adolescents, deeply concerned with poverty and intertwined with urban planning. The discourses of

the 13th Arrondissement's mental health innovators provide both counterpoint to and critique of the American psychiatric epidemiology and mental health movement with which they were contemporaneous.

Using Kuhn's notion of the 'disciplinary matrix', philosopher of medicine Demazeux<sup>34</sup> argues against the idea that psychiatric epidemiology has achieved the status of a normal scientific discipline. He examines the historical decisions, aetiological models, conceptual work, professional collaborations and controversies that shaped the development of the discipline from the 1950s on. We have described the DSM-III's launching in 1980 as a pivotal step in the emergence of psychiatric epidemiology as a publicly recognized, consolidated discipline. Demazeux concludes that rather than constituting a paradigm shift, the DSM-III reinforced the conceptual split underway earlier between the medical model it incorporated and the approach of psychiatric epidemiology's originators, which tended to be multilevel and paid attention to aetiological factors. He suggests that without more attention to its intellectual rationale, psychiatric epidemiology will remain divided, with a weak conceptual matrix. The split between a socio-epidemiological approach and a medically centred one is intensified because biological causes of mental disorder are mainly unknown, which undermines the conceptual coherence of the field of psychiatry, as well. In light of recent debates about reductionism, Demazeux also suggests exploring whether such splits underlie other epidemiological specialties.

## A propitious moment

The composite history that emerges through these articles could not have appeared at a more propitious moment. The language and concepts derived from the mental health field are increasingly used in the societies discussed in these articles—and others<sup>35,36</sup>—to present and analyse social and individual-level problems alike, from economic crises to individual acts of violence.<sup>37,38</sup> Today mental health occupies a more central place in the current rise of global health than it did in the earlier period of international health and development, when psychiatric concerns were overridden by the emphasis on eradicating infectious disease epidemics. Especially cogent now is the centrality of perspectives and methods of psychiatric epidemiology to global health, including when the focus is on infectious and chronic non-psychiatric diseases and their association with psychiatric conditions like depression, as in the case of HIV/AIDS.

However, mental disorders and mental health are conceived very differently now within the framework of global mental health than before. The newer movement relies on

metrics for capturing the burden of mental ill health and mental disorder on productivity and everyday life, a conceptual and ideological shift which allows comparison with other diseases and conditions. In the latest (2010) re-analyses of the Global Burden of Disease (GBD), mental and substance use disorders were the leading cause of global non-fatal burden of disease as measured by Years Lived with Disability (YLD), and the fifth leading disorder category as measured by disability-adjusted life years (DALYs). They also contributed to 0.5% of Years of Life Lost (YLL), an underestimation given that deaths of people with mental illnesses tend to be coded to the physical cause of death and suicide to injury from self-harm rather than to mental disorder.<sup>39</sup> Proponents of global mental health link this burden to the mental health 'treatment gap' worldwide (i.e. that most psychiatric disorders are not treated), itself a product of social inequality, power relations and poverty. But they also decry the paucity of resources devoted to research on the prevalence of such disorders and their associated risks<sup>40</sup>—a problem articulated within the World Health Organization since its early years.<sup>18</sup>

The omission of mental health as a direct target of major global health programmes like the UN Millennium Development Goals (MDGs) recalls the earlier marginalization of mental health and psychiatry perceptible in the articles presented here. The debates around MDGs and mental health<sup>41,42</sup> bring to mind the timeworn question of whether quantitative evidence alone can drive policy—a question which further conceptual and social histories of epidemiology should enlighten.

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