PostScript

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Income inequality and the prevalence of mental illness: a preliminary international analysis

The World Health Organisation's world mental health survey initiative has recently provided comparable cross-national estimates of the prevalence of any, and serious, mental illness.[1] In an exploratory study, we estimated the relations of two important economic factors—living standards and income inequality—to mental illness in developed countries.

Methods and results

Prevalence of mental illness in the WMH survey initiative is derived from face to face interviews using the WMH version of the WHO composite international diagnostic interview (WMH-CIDI), a fully structured, lay administered psychiatric diagnostic interview. Data have so far been reported for eight developed countries (USA, France, Netherlands, Belgium, Spain, Germany, Italy, and Japan). Surveys were based on household probability samples, with an average response rate of 70%.[1] Living standards were measured by gross national income (GNI) per capita from the online World Bank World Development Indicators database. Income inequality was measured as the ratio of the income share of the richest 20% to the income share of the poorest 20% in the 1990s by the United Nations development programme human development indicators, 2005 (table 1). We computed Pearson correlations between the prevalence of any mental illness and income inequality and GNI per capita, and also between serious mental illness and the two economic measures.

There are strong, positive linear associations of GNI per capita with any mental illness ($r = 0.80$, p value = 0.02), and with serious mental illness ($r = 0.89$, p value <0.01). There is also a strong ($r = 0.73$) and significant (p value = 0.04) linear correlation between the prevalence of any mental illness and income inequality (fig 1) and between serious mental illness and income inequality ($r = 0.74$, p value = 0.03). Using different measures of income inequality (10:10 ratio, Gini coefficient) does not substantially affect these results.

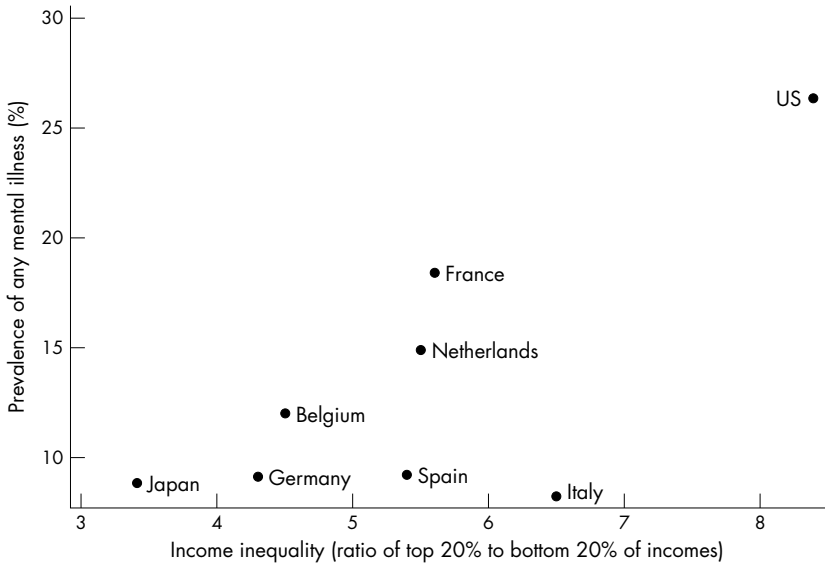

Figure 1 Relation between income inequality and prevalence of mental illness in eight developed countries.

Comment

Income inequality has been linked to physical morbidity, mortality, and such psychosocial outcomes as violence.[2] This preliminary analysis suggests that higher national levels of income inequality are linked to a higher prevalence of mental illness and, in contrast with studies of physical morbidity and mortality, as countries get richer rates of mental illness increase. Within countries, markers of socioeconomic disadvantage (low education, unemployment, and deprivation)[3] and low levels of social capital[4] have been associated with mental illness.[5] As comparable data for more countries become available, it will be possible to estimate the independent, ecological associations between mental health, inequality and income levels.

Table 1 Prevalence of mental illness, living standards, and income inequality in eight developed countries

Country	Any mental illness% (95% CI)	Serious mental illness% (95% CI)	GNI per capita US$, purchasing power parity	Income inequality (top 20:bottom 20 ratio)
Belgium	12.0 (9.6, 14.3)	2.4 (1.2, 3.5)	28130	4.5
France	18.4 (15.2, 21.6)	2.7 (1.1, 4.3)	27040	5.6
Germany	9.1 (7.2, 10.9)	1.2 (0.6, 1.7)	26980	4.3
Italy	8.2 (6.7, 9.7)	1.0 (0.4, 1.7)	26170	6.5
Japan	8.8 (6.2, 11.4)	1.5 (0.7, 2.2)	27380	3.4
Netherlands	14.8 (12.0, 17.7)	2.3 (1.1, 3.5)	28350	5.5
Spain	9.2 (7.8, 10.7)	1.0 (0.7, 1.3)	21210	5.4
USA	26.3 (24.6, 27.9)	7.7 (7.0, 8.4)	36110	8.4

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BOOK REVIEW

Double standards in medical research in developing countries (Cambridge law, medicine and ethics)

Edited by Ruth Macklin. Cambridge University Press, 2004, pp 280 + viii, £22.99 ($39.99) (paperback). ISBN 0521541700

When scientists from the developed world conduct clinical trials in the developing world, special ethical issues arise. What is owed to experimental and control groups? Should new drugs be tested against the best current treatment, or against what is locally available—even if that is nothing? What happens when local mores clash with international ethical guidelines? What role should local ethics review committees play? Should trials be conducted on a population whose poverty will prevent them from sharing fully in the fruits of the research? What can be done (and by whom?) to distribute these fruits more widely and fairly?

These are just some of the questions Professor Ruth Macklin, a prominent bioethicist, addresses in this provocative book. It constitutes an articulate, policy level argument that research populations in the developing world must, whenever possible, receive treatment and benefits equal to those enjoyed by their counterparts in the developed world. Indeed, among the most interesting parts of this book is a discussion of several approaches for making medical drugs more affordable to developing countries.

The book touches on the philosophical aspect, but focuses more on the practical application for the conduct of research, from the policy perspective of ethical guidelines. Non-specialists might regard the descriptions of each version of several guidelines to be more detailed than they require. However, using these descriptions to frame the discussion allows Professor Macklin to highlight the range and evolution of thought on these topics. She capitalises here on her experience in helping to draft international research ethics guidelines.

Professor Macklin is generally careful (save when criticising the US government) to present arguments of those with whom she disagrees, thus giving readers the opportunity to weigh matters for themselves. The book is clearly written and accessible, and will provide food for thought for researchers, ethicists, and others.

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