

# Gender as a risk factor in minor psychiatric morbidity in the United Kingdom

H Murphy, K Lloyd

## Citation

H Murphy, K Lloyd. *Gender as a risk factor in minor psychiatric morbidity in the United Kingdom*. The Internet Journal of Epidemiology. 2008 Volume 6 Number 2.

## Abstract

Previous research has found consistent differences in psychiatric morbidity for men and women across continents. The current research focuses on rates of minor psychiatric morbidity (MPM) across the United Kingdom for the first time, examining gender and exploring region as influencing factors in prevalence rates. We found that while there was no influence of region on psychiatric health, women had significantly higher mean GHQ-12 scores, and thus poorer mental health, than men across the UK ( $t=12.77$ ,  $p<.001$ ). We discuss this finding in the context of debates which point to biological, psychosocial and sociocultural factors explaining differences in symptom prevalence and outline the impact the UK results have in handling MPM in clinical and national health settings.

## INTRODUCTION

While Fryers et al carried out a meta-analysis of the prevalence of psychiatric disorder in Europe and Jenkins et al examined psychiatric morbidity in Britain, there has currently been no UK wide statistics on minor psychiatric morbidity that specifically focuses on gender, region and mental health.<sup>[1,2]</sup> Although Jenkins et al found that rates of psychiatric morbidity were more prevalent in women (19.5% reporting a one-week prevalence rate for neurotic disorder) compared to men (12.3%) in Britain, no regional analysis was carried out.<sup>[2]</sup> Furthermore, Northern Ireland and the Highlands and Islands of Scotland were not included in this study. In 2001, the Northern Ireland Household Panel Survey (NIHPS) included the 12 item General Health Questionnaire (GHQ-12) for the first time, thereby coming into line with the GHQ-12's inclusion in the British Household Panel Survey (BHPS) since 1991 for England and since 1999 for Scotland and Wales. This paper presents data from the 2003 wave and examines the extent of minor psychiatric morbidity (MPM) across the United Kingdom by region and gender.

## METHOD

The GHQ-12 is a widely used questionnaire detecting psychiatric disturbance in the general population and GHQ-12 data were obtained from Wave 13 of the BHPS and Wave 3 of the NIHPS.<sup>[3]</sup> Data are weighted cross-sectionally to ensure the sample is representative of the population in

that year and the appropriate cross-sectional weight variables computed for 2003 were used to analyse the data set for this paper.<sup>[4]</sup>

In 2003, 14,761 respondents from all UK regions (England, Scotland, Wales and Northern Ireland) completed the GHQ-12. Respondents were asked to rate their general level of wellbeing in the period of a few weeks before the interview. GHQ-12 scores were coded in two ways for analysis. Firstly, the 12 individual items were coded 0,1,2,3 and the scores were summed to give an overall GHQ-12 scale running from 0 (the least distressed) to 36 (the most distressed). Higher mean scores are indicative of psychiatric disorder. Secondly, values of 1 and 2 on each item were re-coded to 0, and 3 and 4 values to 1. The items were then summed to give a scale running from 0 (the least distressed) to 12 (the most distressed). A threshold score of 4 or more on the GHQ-12 is often used to identify respondents with a potential psychiatric disorder or 'caseness' and this cut-off point was used for the purposes of the present paper.<sup>[5]</sup>

## RESULTS

### MEAN GHQ-12 SCORES

The data were analysed using the procedure for complex surveys in STATA version 8. As Table 1 shows, the mean GHQ-12 score for the UK as a whole was 11.02. There were no significant differences in GHQ-12 scores across the four regions of the UK. However, consistent with previous

research using the GHQ as a measure of mental health, women had significantly higher mean GHQ-12 scores, and thus poorer mental health, than men ( $t=12.77$ ,  $p<0.001$ ).

Figure 1

Table 1: Mean GHQ-12 Scores across the UK

	Mean	Standard Error	Confidence Interval (95%)
Men	10.28	.085	10.12-10.45
Women	11.68	.091	11.50-11.86
All (UK)	11.06	.069	10.89-11.16

GHQ CASENESS

One in five (19.33%) respondents in the UK had GHQ-12 scores indicative of psychological distress on the GHQ-12. As expected, there was a statistically significant relationship between gender and GHQ-12 caseness; more women (22.64%) than men (15.62%) had a score of 4 or more ( $p<0.001$ ).

DISCUSSION

While no effect for region was found, gender differences in psychiatric morbidity in the UK parallel research findings in Europe and North America.<sup>[6,7,8,9]</sup> There is also longitudinal evidence to suggest that women tend to have longer and more chronic periods of psychiatric distress as well as experiencing higher rates of co-morbidity which lead to worse outcomes.<sup>[10]</sup>

The causes of gendered MPM are still under debate and theorists have pointed towards biological, psychosocial and sociocultural factors to explain differences in symptom prevalence. Reproductive function in women may be linked to depressive episodes over a woman's life cycle. Pre-menstrual mood fluctuations, pregnancy, the post-partum period, the menopause and exogenous hormone therapy across the life span have been presented as physical and psychological stressors not experienced by men.<sup>[11]</sup> Recent research suggests that serotonergic mechanisms, associated with the aetiology of major depression and anxiety, differ between the sexes but in the same year, a critical review of gender differences in rates of depression, found no evidence to support either a hormonal or biological causal mechanism.<sup>[12,13]</sup>

Alternatively, gender socialization theory highlights the different ways in which personal distress is displayed and experienced for each gender. Girls and women tend to internalize distress while boys and men tend to externalise personal distress. <sup>[14,15]</sup> Internalization is then associated

with disorders such as depression, anxiety and suicidal ideation while externalisation is associated with anti-social behaviour, substance use, addiction and suicide. This is not to say that the underlying factors producing psychiatric distress in each gender are different but that there appears to be specifically socially determined ways of expressing personal distress for each gender. Depressed women and alcoholic men may be more acceptable compared to alcoholic women and depressed men in society.<sup>[16]</sup>

However, gender based social roles do not appear to explain differences in common mental disorders according to recent research in the UK and a recommendation to examine gendered role demands and conflicts in a more detailed and systematic manner was suggested.<sup>[17]</sup> This would produce more local and context sensitive data and is more easily achieved with the use of qualitative research methodologies. Of course, the issue here is the tension between the analysis of large epidemiological data sets, the setting and testing of theory and, ultimately, the search for causation. There is also a continuing problem with a lack of harmonisation as regards the choice of clinical measures and this cuts within and across the national and international context. In short, this has left us with clear findings about gendered MPM but little resolution to ascertaining causal factors.

While theoretical debates continue, it is crucial that clinicians and community healthcare teams are aware of gender as a primary risk factor for MPM and that health professionals develop awareness and appropriate response measures to robust but often under-acknowledged findings. Depressive and anxiety disorders are the leading cause of mental disability in WHO's global burden of disease and these particular disorders are encountered on a daily basis in community and primary care settings.<sup>[18,19]</sup> Two caveats accompany this research paper. Firstly, brief screening scales usually contain items that assess somatic symptoms, depression, anxiety or distress – symptoms which have a higher incidence in women and which are correlated with help-seeking behaviour. Secondly, women clients tend to be over detected and men clients under detected for MPM in clinical settings.<sup>[20]</sup> Nonetheless, findings from the first UK wide study for psychiatric morbidity in the general population suggest that the public health agenda should acknowledge that gender is a risk factor for MPM and strategies should be implemented to respond to these significant concerns.

## References

1. Fryers T, Brugha T, Morgan, Z, et al. Prevalence of psychiatric disorder in Europe: The potential and reality of meta-analysis. *Soc Psychiatry Psychiatr Epidemiol*, 2004;39:899-905.
2. Jenkins R, Lewis G, Bebbington, P, et al. (2003) The national psychiatric morbidity surveys of Great Britain-initial findings from the Household Survey. *Internat Rev Psychiatry* 2003;15:29-42.
3. Goldberg DP, Williams P. A User's Guide to the General Health Questionnaire. Windsor: NFER-Nelson, 1988
4. Institute for Social and Economic Research, University of Essex. British Household Panel Survey; Waves 1-12, 1991-2003 [computer file]. Colchester, Essex: UK Data Archive [distributor], SN: 4967.
5. Miller R, Devine P, Schubotz D. Secondary Analysis of the 1997 and 2001 Northern Ireland Health and Social Wellbeing Surveys. Belfast: Department of Health, Social Services and Public Safety, 2003.
6. Aatlo-Setälä T, Poikolainen K, Tuulio-Henriksson A, et al. (2002) Predictors of mental distress in early adulthood: A five-year follow-up of 709 high-school students. *Nord J Psychiatry*, 2002;56:121-125.
7. Bijl R, de Graaf R, Ravelli A, et al. Gender and age-specific first incidence of DSM-III-R psychiatric disorders in the general population: Results from the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Soc Psychiatry Psychiatr Epidemiol*, 2002;37:372-379.
8. Kessler RC, McGonagle KA, Swartz M, et al. Sex and depression in the National Comorbidity Survey, 1: lifetime prevalence, chronicity and recurrence. *J Affect Disord*, 1993;29:85-96.
9. Weissman MM, Bland R, Joyce PR, et al. Sex differences in rates of depression: cross-national perspectives. *J Affect Disord*, 1993;29:77-84.
10. Blazer DG, Kessler RC, McGonagle KA, et al. The prevalence and distribution of major depression in a national community sample: the National Comorbidity Survey. *Am J Psychiatry*, 1994;151:979-986.
11. Kornstein SG. Gender differences in depression: implications for treatment. *J Clin Psychiatry*, 1997;58:12-18.
12. Hrdina P. Sex-related differences: do they matter? *J Psychiatry Neurosci*, 2000;25(4):319-320.
13. Piccinelli M, Wilkinson G. Gender differences in depression. *Critical Review. Br J Psychiatry*, 2000;177:486-492.
14. Canetto S. Gender roles, suicide attempts, and substance abuse. *J Psychol*, 1991;125(6):605-620.
15. Canetto S. Meanings of gender and suicidal behaviour during adolescence. *Suicide Life Threat Behav*, 1997;27(4):339-351.
16. Klerman GL, Weissman MM. Depression among women: their nature and causes. In M. Guttentag M, Salasin S, Belle D, eds. *The Mental Health of Women*. New York: Academic Press, 1980. Pp57-109.
17. Weich S, Sloggett, A, Lewis G. Social roles and the gender difference in rates of the common mental disorders in Britain: A 7-year, population-based cohort study. *Psychol Med*, 2001;31:1055-1064.
18. World Health Organisation *The World Health Report 2001. Mental Health: New Understanding, New Hope*. Geneva: WHO, 2001.
19. Goldberg D, Huxley P. *Common Mental Disorders: A Biosocial Model*. London: Tavistock/Routledge, 1992.
20. Potts MK, Burnam MA, Wells KB. Gender Differences in Depression Detection : A Comparison of Clinician Diagnosis and Standardized Assessment. *Psychol Assess*, 1991;3:609-615.

**Author Information**

**Helen Murphy, BA, MSc**

Psychologist, School of Psychology, University of East London

**Katrina Lloyd, BSSc**

Psychologist, Department of Sociology, The Queen's University of Belfast