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Mental health in a gendered context: Gendered community effect on depression and problem drinking

Lore van Praag [a], Piet Bracke [a,*], Wendy Christiaens [a], Katia Levecque [a,b], Elise Pattyn [a]

[a] Health & Demographic Research—HeDeRa, Department of Sociology, Ghent University, Korte Meer 5, 9000 Ghent, Belgium
[b] Research Foundation (FWO), Flanders, Belgium

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ABSTRACT

Socio-economic features of a community influence people's health. However, not all inhabitants are affected similarly. The present study explores gendered contextual effects on problem drinking and depression with the differential exposure, vulnerability and expression hypotheses of the social stress model in mind. Analyses are based on the pooled data of the Belgian Health Interview Survey 2001 and 2004 ($N = 21.367$ respondents, $N = 589$ municipalities). Results reveal that living in an area with high unemployment is more detrimental for women in terms of depression, but has the same impact on men and women when problem drinking is the outcome.

1. Introduction

Studies that focus on area effects are abundant. They interpret health variations in terms of effects of the social and physical environment to which all inhabitants of a community are exposed (Dalgard and Tambs, 1997; Driessen et al., 1998; Duncan et al., 1998; Kawachi et al., 1999; MacIntyre and Ellaway, 2000, 2003; MacIntyre et al., 2002; Pickett and Pearl, 2001; Robert, 1999).

A diverse set of adverse conditions have been pinpointed as important community-level features affecting the health of local residents in previous research: income inequality (Lynch et al., 2004; Subramanian and Kawachi, 2004; Yen and Syme, 1999), unemployment (Hamilton et al., 1997; Lorant et al., 2008), fear of crime (Chandola, 2001), lack of social capital (Kawachi et al., 1999; Lomas, 1998) and social disorganisation (Faris and Dunham, 1960 cited in Yen and Syme, 1999; Silver, 2000). However, more insight into the mechanisms that connect the residential area and health outcomes is required (Cummins et al., 2005a; Tunstall et al., 2004; Weich, 2005; Yen and Syme, 1999).

A good starting point for further research is the observation that area characteristics affect subpopulations differently (Diez-Roux, 2004; MacIntyre and Ellaway, 2000; Stafford and Marmot, 2003; Stafford et al., 2005). Numerous studies have reported cross-level interaction effects (Diez-roux et al., 1997; Duncan et al., 1998; Stockdale et al., 2007; Waitzman and Smith, 1998; Weich et al., 2003). Specific gender differential contextual effects have also already received some attention (Blue, 2000; Kavanagh et al., 2006; Leclere et al., 1997; Molinari et al., 1998; Robert, 1999; Verheij, 1996). This study investigates the gendered community effects linked with the topic of mental health, taking as point of departure the assumption that men and women have a different relationship with their environment as well as with mental health. Some studies have found that place of residence affects women's health more profoundly (Kavanagh et al., 2006; Monden et al., 2006; Poortinga et al., 2007; van Lenthe and Mackenbach, 2002), although the empirical underpinnings of this finding are inconsistent (Karvonen and Rimpelä, 1996, 1997; Kelleher et al., 1992; Matheson et al., 2006; Molinari et al., 1998; Propper et al., 2005; Raleigh and Kiri, 1997; Skrabski et al., 2003; Stafford et al., 2005).

We will focus on unemployment rates as a socio-economic feature of the community. Unemployment has been shown to have detrimental effects on mental health at the individual (Bracke and Wauterickx, 2003; Cummins et al., 2005b; Fone et al., 2007; Lépine et al., 1997; Weich et al., 2003), as well as the household (Clark, 2003) and community level (Béland et al., 2002; Catalano and Dooley, 1977; Cummins et al., 2005b; Fone et al., 2007; Hamilton et al., 1997; Lorant et al., 2008; van Lenthe et al., 2005). Most studies substantiate the gender differential effects of unemployment on the basis of role theory (De Goede and

* Corresponding author. Tel.: +32 9 264 68 03; fax: +32 9 264 69 75.
E-mail address: Piet.Bracke@UGent.be (P. Bracke).

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Maassen, 1998 cited in De Witte, 1999), finding more adverse effects for men, compared to women (Artazcoz et al., 2004; Paul, 2005). It is suggested that unemployed men experience more strain because they fail in their role of providing for the family as primary wage earner (Kulik, 2000). The role enhancement hypothesis implies that the existence of alternative family roles make it easier for women to cope with job loss (Artazcoz et al., 2004; Hunt and Annandale, 1993).

Furthermore, other research emphasizes the gendered expression of distress, suggesting that this expression leads to health problems being more internalised in women, but more externalised in men (Kendler et al., 2003; Krueger et al., 2001; Rosenfield et al., 2000; Trickett and McBride-Chang, 1995). In brief, we will examine whether area-level unemployment rates have gendered effects irrespective of the mental health outcome used. In the present study, we chose depression to represent the internalising expression of mental distress and problem drinking to indicate externalising behaviour.

With regard to gender differences in mental health, the social stress model provides a useful frame of reference, because it takes gender-specific effects of stressors, mediators and outcomes into account (Aneshensel et al., 1991; Pearlin, 1989). The social stress model covers three main hypotheses referring to exposure, vulnerability and expression. The *differential exposure hypothesis* assumes that women and men are exposed to various types of stressors with different intensities (Matheson et al., 2006), due to, for example, different experiences in the work environment (Molinari et al., 1998). The differential exposure hypothesis is usually complemented by the *differential vulnerability hypothesis*, which argues that vulnerability factors mediate the health consequences of stressors. As a result, women and men differ in responsiveness to stressors due to several biological, psychological and social factors (Bracke, 1993; De Silva et al., 2005; Ferlander, 2007; Lin and Ensel, 1989; Pearlin, 1989; Thoits, 1995), such as higher sensitivity (Turner et al., 1995), lower self-esteem or higher dependency on social support among women (Thoits, 1995; Wohlgemuth and Betz, 1991). But some studies refute this fact (Almeida-Filho et al., 2004; Bebbington, 1996; Piccinelli and Wilkinson, 2000). The third *hypothesis of differential* expression assumes that individuals express the strain they experience in different ways (Aneshensel et al., 1991; Aneshensel, 1992; Bracke, 1993; Dohrenwend and Dohrenwend, 1976; Pearlin, 1989). The expression of health problems is more internalised in women, while men express their distress in a more externalised way (Kendler et al., 2003; Krueger et al., 2001; Rosenfield et al., 2000; Trickett and McBride-Chang, 1995).

In accord with both the differential exposure and the differential vulnerability hypotheses, a *gendered community effect hypothesis* states that the mental health of women is more affected by stressors stemming from their area of residence, compared to men (Kavanagh et al., 2006; Molinari et al., 1998; Monden et al., 2006; Poortinga et al., 2007; Propper et al., 2005; Stafford et al., 2005; van Lenthe and Mackenbach, 2002). Basically, because their social roles are more embedded in the local area (Robert, 1999), they spend more time at home, are more inclined to work part time (Kavanagh et al., 2005) and have more contact with the local neighbourhood when shopping or accompanying children to school (Floro and Miles, 2003). They are more inclined to be employed in the local community too, as a consequence of the gender gap in commuting. Moreover, their role as pivotal care provider (Bracke et al., 2008) also binds them to local informal care relationships with neighbours. Actually, when using unemployment rates as an environmental stressor, we allow for a very conservative test of the first hypothesis: even when we expect unemployment to have a more adverse effect on men's mental health, unemployment rates at the community level are still assumed to be more detrimental for women. Specifically, we expect that the mental health of women is more affected by community unemployment rates in comparison with men's mental health.

The differential expression hypothesis implies that research on the gendered nature of community effects is flawed when only one indicator of mental health problems is taken into account. In other words, a more rigorous test of both aforementioned hypotheses suggests that cross-level effects on both internalising and externalising mental health problems need to be examined. Previously, several studies examined community-level effects on internalised expressions of distress, such as depression and anxiety (Kawachi and Berkman, 2001) or on externalised problem behaviour, such as problem drinking (Forcier, 1985, 1988; Hamilton et al., 1990; Hill and Angel, 2005; Lahelma et al., 1995) and antisocial behaviour (Ingoldsby and Shaw, 2002; Kendler et al., 2003), but few study examined gendered cross-level effects on both dimensions of mental health problems in one design (Parker et al., 1987; Silver et al, 2002). Hence, by taking both depression and problem drinking into consideration, our final hypothesis examines whether gender-specific differences in residential-area effects are, at least partially, due to a gender-specific expression of mental health problems.

In sum, taking the differential exposure, differential vulnerability and differential expression hypotheses into account, the link between residential area, gender and both internalising and externalising dimensions of mental health will be targeted. More specifically, the effect of the cross-level interaction between gender and unemployment rate will be modelled with problem drinking and depression as gendered outcomes of mental health. In view of the aforementioned hypotheses, we expect residential unemployment rates to exert more of an effect on women. The effect will be perceptible especially in the effect on depression, because women are more inclined to internalise their mental problems.

Additionally, previous research has outlined a series of risk factors for mental distress, which cannot be ignored in the analyses. Warr (1984 cited in De Witte, 1999), for example, emphasized that single women find unemployment as distressing as men, because they fulfill the role of sole wage earner. Findings in the literature on whether or not having children is beneficial or detrimental have been inconsistent (Artazcoz et al., 2004; Gutiérrez-Lobos et al., 2000). But social ties in general have been well recognized as an advantage (Kawachi and Berkman, 2001; Pearlin, 1989; Ross and Mirowsky, 2006; Turner et al., 1995). The other SES indicators, education and income, should also be incorporated (Araya et al., 2003; Bebbington, 1998; Bracke and Wauterickx, 2003; Kawachi and Berkman, 2001; Lewis et al., 2003; Lorant et al., 2008; Ross and Mirowsky, 1999; Ross and Van Willigen, 1997; Stafford and Marmot, 2003). Regarding the area level, some studies have revealed that population density and mean area income are related to unemployment rates (McCulloch, 2001; Peterson et al., 2009; Pickett and Pearl, 2001; Pritchard and Evans, 1997; Sundquist et al., 2004). A high population density is linked with a lot of stress according to Taylor et al. (1997) and Greiner et al. (2004), while the median income is negatively associated with mental health (Galea et al., 2007; Weich et al., 2006). Therefore, the preceding determinants should be added to the conceptual model as controls.

2. Methods

2.1. Sample

Individual and family level variables are obtained from the pooled data of the Belgian Health Interview Surveys (HISs) from