



The mediating effect of effort-reward imbalance in household and family work on the relationship between education and women's health



Stefanie Sperlich*, Siegfried Geyer

Medical Sociology, Hannover Medical School, Germany

ARTICLE INFO

Article history:

Available online 3 March 2015

Keywords:

Social inequality
Somatic complaints
Effort-reward imbalance
Household
Family
Stress

ABSTRACT

Occupational stress as a key determinant for explaining health inequalities has been well established while the impact of stress related to family work has rarely been considered. This study investigates whether stress in household and family work may contribute to health inequalities in women. We used a population-based sample of German mothers ($n = 3129$) to determine the total, direct and indirect effects of education on somatic complaints by means of OLS regression-based mediation models. Inference about indirect effects was determined by 95% bias corrected bootstrap confidence intervals. Education was assessed by a measure combining school education and vocational training. Stress was measured using the adopted effort-reward-imbalance (ERI) questionnaire for household and family work. The von Zerssen list of somatic complaints was used as measure of subjective health. We found a significant total effect of education on somatic complaints ($p \leq 0.001$) as well as significant indirect effects through 'effort' ($p = 0.006$) and 'reward' in household and family work ($p \leq 0.001$). However, the subscales of ERI pointed into different directions: while levels of 'effort' increased with women's educational attainment, levels of distress related to low 'reward' decreased with higher levels of education. Our findings suggest that the effect of women's education on somatic complaints is mediated through stress related to low reward for household and family work. In particular, lack of 'societal esteem' for household and family work contributed to health disadvantages in lower educated mothers. We conclude that research on health inequality would benefit from taking stressful experiences in household and family work greater into account.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

There is conclusive evidence that work conditions play a prominent role for health and well-being in adult life (Siegrist et al., 2004; Siegrist, 2009). Recent studies have shown that work-related stress acts as a mediator in the association of socioeconomic status with health, indicating that higher levels of work-related stress may contribute to social inequalities in health (Hoven and Siegrist, 2013; du Prel et al., 2014). However, studies have reported inconsistent findings of associations between job strain and health between women and men, with some showing similar effects between women and men (Griffin et al., 2002; Kivimäki et al., 2012;

Theorell et al., 2014) while others indicating a lower relevance in women (Bosma et al., 1998; Wamala et al., 2000; Wang et al., 2008). In accordance with the latter findings, several studies pointed out that the socio-economic gradient in health status was less steep for women. In particular, employment grades turned out to be less relevant for explaining health inequality among women as compared to men (Koskinen and Martelin, 1994; Arber, 1997; Sacker et al., 2000). Based on these findings it was argued that the main mechanisms underlying social inequalities in health may differ between men and women. Employment-related factors may be more important for men while women tend to have other potentially demanding social roles related to family, child-care and care taking of others (Chandola et al., 2004). This line of argument dates back to the 1970s where men were primarily seen in terms of their occupational role, whereas women were mainly considered in terms of their family roles (Arber, 1991). With attributes such as unpaid, isolated and undervalued, family work was predominantly

* Corresponding author. Hannover Medical School, Medical Sociology, Carl-Neuberg Str. 1, 30625 Hannover, Germany.

E-mail address: Sperlich.Stefanie@mh-hannover.de (S. Sperlich).

evaluated as being detrimental to women's mental and physical health (Gove, 1972; Shehan et al., 1986).

As a result of women's growing labour market participation, research on women's health has increasingly focussed on combining paid work and family roles. Most studies are supporting the 'role-benefit' theory, suggesting that women with multiple roles tend to be healthier than those enacting fewer ones (Mastekaasa, 2000; Fokkema, 2002; Lahelma et al., 2002; McMunn et al., 2006). However, there is also some evidence for the 'role-strain' theory, which stresses the burden of the combined impact of domestic responsibilities and paid work (Krantz and Östergren, 2001; Glynn et al., 2009). In some studies it was assumed that neither the 'role benefit' nor the 'role-strain' theory may be sufficient for explaining women's experiences in their social roles in relation to psychological well-being. It was discussed that by acting as workers, spouses, and parents, women experience both suffering and gratification. Thus, qualitative rather than quantitative aspects of their social roles may be the best key to understand women's psychological well-being (Baruch and Barnett, 1986; Thomas, 1997; Matthews et al., 1998; Roberts and Chapman, 2000). In order to capture qualitative characteristics of domestic work, some research was carried out on the extension of the demand-control model (Karasek and Theorell, 1990) to domestic work. The findings revealed that women with low control of their domestic work had increased risks of burnout (Kushnir and Melamed, 2006), lower self-rated health (Staland-Nyman et al., 2008), depression and anxiety (Griffin et al., 2002) as well as coronary heart disease (Chandola et al., 2004).

More recently, also the effort-reward imbalance model (ERI) was adapted to unpaid household and family work (Sperlich et al., 2012). This model claims that lack of reciprocity between efforts spent and work-related rewards received elicits strong negative emotions and sustained stress reactions which in the long run adversely affect employees' physical and mental health (Siegrist, 1996). A large body of evidence supports this assumption indicating that an imbalance between high effort and low reward is associated with poor health, for example with respect to (psycho) somatic health symptoms, cardiovascular disease outcomes and psychological well-being (Van Vegchel et al., 2005; Siegrist, 2009). The application of the model to unpaid household and family work was based on the assumption that unfairness of exchange in terms of an imbalance between efforts spent and subsequent rewards received leads to stress experience, also in household and family work (Sperlich et al., 2012). First evidence suggests that the ERI model provides an explanatory framework for assessing stressful experiences in household and family work (Sperlich et al., 2013). In addition, it was reported that ERI in household and family work differed according to socioeconomic status, indicating that levels of effort-reward imbalance increased with decreasing levels of income and school education (Sperlich et al., 2012).

Building on these findings, this study aims at investigating whether stress in household and family work in terms of ERI may contribute to health inequality in women. In statistical terms, it is examined whether stress in household and family work acts as a mediator on the relationship between education and women's subjective health.

2. Methods

2.1. Sample

The sample consists of 3129 mothers living in Germany. They were between 17 and 60 years (mean age 39.1 ± 6.8 years), their youngest child ranged in age from 0 to 18 years (mean age 9.4 ± 5.3 years). The cross-sectional survey was conducted by TNS

Healthcare on behalf of the Department of Medical Sociology at Hannover Medical School. The ethics committee of Hannover Medical School approved the study. The data were collected in 2009 by means of a mail survey. The sample was derived from the Healthcare Access Panel, comprising 75000 households in total and 27038 households including women with children under the age of 18 years. From this panel 5000 German mothers were selected at random. The gross sample was drawn according to predefined quota, i.e. age of mother and youngest child, school education, marital status and number of children. The initial case number of young mothers (≤ 25 years) had to be complemented by 107 cases in order to meet the quota. Of these 5107 mothers 3183 participated in the survey, corresponding to a response rate of 62.3%. A total of 54 mothers were excluded due to falling outside the inclusion criteria (in particular, youngest child was >18 years of age). Accordingly, the final sample had a size of $n = 3129$ women. It was weighted according to the distribution of German federal states, school education, mother's age, marital status and number of children. It can be considered as representative for German mothers with respect to these characteristics. Table 1 displays the sample characteristics according to the key variables used.

2.2. Measurements

2.2.1. Stress in household and family work

Stress in household and family work was assessed using the adopted ERI-questionnaire (Sperlich et al., 2012). Analogous to the original instrument (Siegrist, 1996) it includes the subscales 'effort' and 'reward'. Effort was measured with eight items assessing demanding aspects of household and family work by emphasizing quantitative workload. Reward was measured by 11 items, divided into four dimensions: (1) intrinsic value of family and household work, (2) societal esteem for household and family work, (3) recognition from the spouse/partner and (4) affection from the child(ren) (Table 2). Response formats were constructed analogously to the original ERI. First, mothers could agree or disagree whether the item content describes a typical feature of their work situation. Subsequently, those who agreed were asked to rate to what extent they usually feel distressed. Every item has five categories ranging from (1) 'yes, but this does not burden me at all' to (5) 'yes, and this burdens me very greatly'.

Analogous to Siegrist (1996), the effort-reward ratio was computed for each respondent according to the formula: $e/(r \times c)$, where e is the sum score of the effort scale, r is the sum score of the reward scale and c defines a correction factor accounting for different numbers of items in the numerator and denominator. Table 3 provides information on mean values and frequency distributions of ERI and its components.

2.3. Education

Women's education was assessed according to Lampert and Kroll (2006) by a combined measure including school education and vocational training. The score ranged from 1 to 7, with 1 as the lowest category (none/not yet completed vocational training and less than 13 years of school education) and 7 as the highest category (13 years of school education and 'university' degree).

2.4. Health

The von Zerssen's complaints scale (Von Zerssen, 1976) was used for assessing physical disabilities and discomfort. The scale consists of 24 items and asks for currently perceived general and somatic complaints (e.g. back and lower back pain, headache, heavy legs). It was introduced by the following sentence: "You will find a

Download English Version:

<https://daneshyari.com/en/article/7333047>

Download Persian Version:

<https://daneshyari.com/article/7333047>

[Daneshyari.com](https://daneshyari.com)