Double Jeopardy: The Roles of Job Autonomy and Spousal Gender Ideology in Employed Women’s Mental Health

Senhu Wang · Lambert Zixin Li

Abstract
Employed women persistently suffer in mental health despite more family-friendly workplaces. The job demand-control theory argues that employed women’s mental health depends on their job autonomy, while sociological research on the gender division of household labor locates the cause in how much they are expected by husbands to contribute to housework. The article integrates the two streams of literature by arguing that employed women’s job autonomy and their spousal gender ideology interact to shape their mental health. Using nationally representative household-level panel survey and fixed effects models, the study showed that job autonomy improved employed women’s mental health, but the benefits depended on their spousal gender ideologies. Specifically, women suffered a “double jeopardy” in mental health when they lacked job autonomy and had traditional husbands. In contrast, when women’s husbands had an egalitarian gender ideology, they enjoyed mental health regardless of job autonomy. In addition, women’s self-gender ideology did not predict their own or their husbands’ mental health. The results point to a societal-level change in men’s gender ideology as a fundamental way to improve employed women’s family well-being.

Keywords Family well-being · Mental health · Housework · Job autonomy · Gender ideology
Introduction

Women have increasingly contributed to household income and their workplaces have become more employee-centered and family-friendly (Chung & van der Lippe, 2020). Despite persistent gender pay gaps, occupational segregations, and gender glass ceilings (England et al., 2020), these positive changes in the labor markets and in organizations should have benefited employed women’s overall well-being (Kamerāde et al., 2019). However, it is puzzling that employed women’s mental health remains low (Wood, 2020).

Particularly, employed women’s low mental health is a pressing issue in the United Kingdom. A survey shows that nearly one-fourth of working women reported being unable to manage job stress, and the United Kingdom Government has made improving women’s mental health a public health priority. The high work-family conflict in the United Kingdom is paradoxical because unlike the United States where there is no federal policy on flexible work arrangements (White House, 2021), every employee in the United Kingdom has the legal right to request work-family policies (UK Government 2020). Moreover, research shows that work-family policies improve employee’s job autonomy and mental health at the national level in the United Kingdom (Li & Wang, 2022; Wheatley, 2017). Employed women’s persistently low mental health despite the wide adoption of work-family policies leads us to explore whether the effects of job autonomy on mental health depends on the factors outside the workplace, especially on self and spousal gender ideology. This is because traditional gender ideology is still prevalent in the United Kingdom (Chung & van der Lippe, 2020), which predicts women’s unequal share of housework and worse mental health (Kan, 2008; McMunn et al., 2020; Sullivan, 2018).

Two streams of literature explain employed women’s low level of mental health from different angles. Research in organizational behavior and sociology of labor market emphasizes the roles of job demand and control in job-related stress and burnout (Bakker & Demerouti, 2007; Karasek, 1979), which predicts that women suffer in mental health when they lack job autonomy, or control over where, when and how to work (Schieman et al., 2009; Schneider & Harknett, 2019; Wheatley, 2017).

By contrast, sociologists of family argue that the gender division of household labor affects women’s mental health (Bass, 2015; Hu & Yucel, 2018), who propose that women continue to take an unequal share of domestic labor because the traditional gender ideology of men that assigns women’s primary role to homemaking rather than breadwinning persists in the broader society (Aassve et al., 2014; Ashwin & Isupova, 2018; Bianchi et al., 2012; Evertsson, 2014).

The two lines of literature have been running in parallel, leaving important questions unanswered. On one hand, does job autonomy suffice to improve women’s mental health despite the stalled societal-level change in traditional gender ideology (England et al., 2020; Pepin & Cotter, 2018; Ridgeway & Correll, 2004)? On the other hand, if husbands become more egalitarian in their gender ideology, is a high level of job autonomy still necessary to improve women’s mental health (Pedulla & Thébaud, 2015)?

To answer these questions, we integrated the two research traditions. We argue that because employed women’s disadvantages are universal across social domains
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(Ridgeway & Correll, 2004; Scarborough & Risman, 2017; Schnettler et al., 2021), their low job autonomy and exposure to husbands’ traditional gender ideology are often at play at the same time (Bird & Rieker, 2008; Grzywacz & Bass, 2003; Lennon & Rosenfield, 1992). On one hand, women who lack job autonomy and have traditional husbands may suffer a “double jeopardy” in mental health. On the other hand, egalitarian husbands’ lower expectation of housework may attenuate their wives’ mental burden from lack of job autonomy. In all, we predict that job autonomy and spousal gender ideology interact to shape employed women’s mental health.

Theory and literature: why do Employed Women Suffer in Mental Health?

Work domain: job autonomy

Research in organizational behavior and psychology (Häusser et al., 2010; Karasek, 1979) has identified job autonomy as a predictor of employees’, especially employed women’s, mental health. Job autonomy is defined as employees’ control over where, when and how to work. It is a multidimensional concept that captures the extent to which employees have the freedom to make independent decisions in their work about their work pace, work manner, and work hours etc. (Wheatley, 2017). Recently, sociologists of labor market and organization have also attended to schedule control as a salient dimension of job autonomy and linked it with workers’ health and well-being (Schneider & Harknett, 2019; Kelly et al., 2010; Wang et al., 2022a, b). In this article, we focus on the broader concept of job autonomy because its different dimensions are closely related to each other and matter altogether to workers’ mental health (Burgard & Lin, 2013; Kalleberg, 2012; Yucel 2019). For example, a field experiment shows that working from home also increases employees’ schedule control, both of which improve employees’ self-reported mental health (Bloom et al., 2015).

Organizational behavior theories elaborate on how lack of job autonomy leads to job-related stress and burnout (Häusser et al., 2010). For example, the job-demand and control (JDC) model, an influential theory proposed by Karasek (1979), identifies job demands and job control as two job characteristics that influence employees’ mental health. In particular, it argues that job demands such as high work intensity and role conflict can undermine employees’ mental health, while job control such as job discretion and autonomy can help employees to overcome the negative effects of job demands, achieve work-life balance, and improve their mental health (Bakker & Demerouti, 2007; De Simone et al., 2014; Yucel & Minnotte, 2017). Moreover, research shows that women in particular suffer from lack of job autonomy, which often cause work-to-family interference (Kelly et al., 2010). Building on the organizational-level research in specific firms and industries, we argue that job autonomy as a holistic measure of workers’ control over various aspects of their job also affects their mental health at the national level.
Family Domain: spousal gender ideology

A parallel stream of literature on the gender division of household labor proposes that spousal gender ideology affects women’s mental health (Bass, 2015; Hu & Yucel, 2018). Gender ideology is the individual views on men and women’s roles in the society, primarily in the work and family domains (Davis & Greenstein, 2009). A traditional gender ideology regards men as “breadwinners” and women as “homemakers,” while an egalitarian gender ideology expects men to contribute equally to housework (Pedulla & Thébaud, 2015; Wang, 2019). Scholars argue that husbands’ gender ideology matters more than women’s own gender ideology in determining women’s mental health, because when it comes to household division of labor, wives yield to husbands’ expectations (Zipp et al., 2004). Empirical research shows that women’s increasingly egalitarian gender ideology does little to reduce their unequal shares of housework (Bianchi et al., 2012). Instead, women’s amount and share of housework are largely predicted by their husbands’ gender ideology in various contexts (Aassve et al., 2014; Ashwin & Isupova, 2018; Evertsson, 2014).

While women’s amount and share of housework directly affect their mental health (Bianchi et al., 2012), spousal gender ideology better explains women’s family burdens. At the theoretical level, spousal gender ideology represents the spousal expectation of “ideal mothers” or “ideal wives”, which often contradicts the employers’ expectation of “ideal workers” (Acker, 1990) and leads to mental health burdens. Empirically, counting the number of housework hours has some shortcomings. Besides the amount of physical labor spent on housework, women also perform the taxing “mental work” of planning and coordinating household management. For example, Bass (2015) argues that higher spousal expectation can have an independent effect on women’s mental health regardless of whether they actually do the housework, because of their anticipations of future responsibilities. Therefore, sociologists point to spousal gender ideology as the most important factor to women’s mental health in the families (Hu & Yucel, 2018).

Research Gap: linking work and family domains

While scholars of organizational behavior (and more recently sociologists of labor markets) and sociologists of family offer their respective perspectives on why women suffer a low level of mental health, the two streams of literature have seldom been brought into conversations. The lack of integration leaves two questions unanswered. On one hand, in a traditional society in which women are expected by husbands to share a larger amount of housework, can job autonomy mitigate the burdens on their mental health? On the other hand, in an egalitarian society where husbands contribute to an equal amount of housework, is job autonomy still necessary for women’s mental health? These questions are particularly relevant due to two concurrent transformations in labor markets and in families: organizations widely adopt flexible work arrangements and work-family policies to improve employees’ job autonomy (Chung & van der Lippe, 2020), while at the same time, the revolution in men’s traditional gender ideology has been stalled in recent decades, particularly in the family domains (England et al., 2020; Pepin & Cotter, 2018). Scholars are eager to under-
stand whether a fundamental cause of women’s mental health lies in the work or the family domain, or both. For labor and family policies, answering the two questions helps identify the most effective interventions to improve women’s mental health.

To answer these questions, we proposed an integrated perspective that does not focus on one specific form of disadvantage in a particular social domain (e.g., how employees follow employers’ instructions in the workplaces, or how wives yield to husbands’ expectations in the families). Instead, we argue that a social group’s disadvantages across social domains interact to shape their health and well-being. In the context of women’s mental health, we hypothesize that women who are disadvantageous in the family, or have traditional husbands, would experience a “double jeopardy” if they are also disadvantageous in the workplace, manifested in their low level of job autonomy. In other words, the mental health benefits of job autonomy would be the largest for women with traditional husbands. By contrast, women’s family advantage, as represented by husbands’ egalitarian gender ideology, may mitigate their workplace disadvantage, or substitute the benefits from job autonomy. As an individual’s gender ideology usually has little variation over time, and spousal gender ideology rarely changes over the course of marriage, we explore the role of spousal gender ideology via examining its interaction effects with women’s job autonomy.

**Hypothesis 1** Job autonomy is associated with better mental health of employed women in the United Kingdom.

**Hypothesis 2** Spousal (husbands’) traditional gender ideology positively moderates the association between job autonomy and women’s mental health.

To strengthen our interpretation that husbands’ traditional gender ideology represents *inequalities* within families (Davis & Greenstein, 2013; Ko, 2018), we test two additional predictions of our theory. Because we argue that women’s mental health is explained by their spousal gender ideology, or whether they can make their own decisions with regard to the division of housework, we can derive two hypotheses. First, because family power is unequally distributed within the couples and men (or husbands) are those with power, we should not expect an effect of wives’ egalitarian gender ideologies on husbands’ mental health (Zipp et al., 2004). This hypothesis, if true, suggests that the power between wives and husbands are unequal and have divergent consequences on the couples’ respective mental healths. Second, because it is men who make the decisions regarding housework, women’s own gender ideologies should not predict their own mental health (Bianchi et al., 2012). This hypothesis, if supported, implies that the source of women’s low mental health indeed lies in spousal interactions and family inequalities, rather than in their own traditional gender ideologies that are often acquired through socialization before marriage (Pepin & Cotter, 2018).

**Hypothesis a:** Spousal (wives’) egalitarian gender ideology does not moderate the association between job autonomy and men’s mental health.
**Hypothesis b**: Women’s own traditional gender ideology does not moderate the association between job autonomy and their mental health.

**Methods**

**Data and sample**

The ideal data to study our research question have three features. First, it must survey both wives and husbands in the same households. Second, it needs to draw a probability sample of a national workforce to ensure external validity. Third, panel survey has advantages over cross-sectional data, because a longitudinal design reduces common-variance biases in self-reported independent and dependent variables (Siemsen et al., 2010) and fixed effects model can facilitate causal inference by eliminating time-invariant confounders (Allison, 2009).

In this study, the data used come from the wave 2 (2010–2012), wave 4 (2012–2014), wave 6 (2014–2016), wave 8 (2016–2018) and wave 10 (2018–2020) of the United Kingdom Household Longitudinal Study (UKHLS). The five waves were chosen because the survey asked the questions on job autonomy, the explanatory variable, in alternate years. In 2009, the first wave of UKHLS used a stratified and clustered sampling design to collect a nationally representative sample. The UKHLS then followed and interviewed the same households in each subsequent year (Institute for Social and Economic Research 2022). Among the five waves used in this study, the average interview response rate was around 60% and the average attrition rate was around 21%. Among the interviewed respondents, around 80% of them completed the adult self-completion questionnaire, which measured their mental health, work conditions and gender ideology etc.

To create our analytic sample, the authors first restricted the sample to heterosexual dual earner couples and ensured that both of them are aged between 18 and 65. The authors then excluded respondents who did not complete the self-completion questionnaire. We also excluded respondents who were interviewed after February 2020 to eliminate the impacts of COVID-19 (Lu, Nie, and Qian 2020). After eliminating a small number of observations (around 5%) with missing values in our analytic variables, our final analytical sample included 6,738 women respondents (15,360 person-wave observations) within dual-earner couples. To adjust for the unequal sampling probabilities and potential attrition and non-response and biases, the UKHLS user guide strongly suggests to use longitudinal survey weights to ensure the representativeness of the sample. Specifically, the longitudinal survey weights were “constructed by combining (i) design weights which adjust for unequal selection or sampling fraction and (ii) non-response weights which adjust for differential non-response and attrition at various stages (household level, within household at individual level, whether adult respondent completed self-completion questionnaire or not)” (for more details, see Institute for Social and Economic Research 2022, pp. 48). Thus, we are confident that our conclusions can be generalized to the general population in the UK.
Variables and measures

Dependent variable: Mental Health

The dependent variable in this study was mental health, which was measured by the validated and extensively used 12-item General Health Questionnaire (GHQ-12) Likert score (Goldberg & Williams, 1988). Following similar research (Inanc, 2018; Kamerāde et al., 2019), the authors chose this measure because it captures a wide range of psychological states including experienced affect (Angrave & Charlwood, 2015). The measure also has an advantage in its robustness to panel conditioning. The GHQ-12 questionnaire asked respondents 12 questions about their concentration, sleep quality, depression, self-esteem, general happiness and self-worthiness etc. on a four-point scale ranging from 0 (better than usual) to 3 (much less than usual). Following the convention (Inanc, 2018), the answers to the questions were first reversed and then summed to create a numerical scale ranging from 0 to 36, with a higher score indicating better mental health.

Independent variable: job autonomy

The key independent variable in this study was job autonomy. The questionnaire asked respondents five questions about the extent to which respondents have autonomy over job tasks, work pace, work manner, task order and work hours on a four-point scale from 1 (a lot) to 4 (none). As discussed before, these dimensions of job autonomy are closely related to each other (Bloom et al., 2015), so the study explores the total effect of job autonomy as a composite measure (Wheatley, 2017). The answers to these questions were reversed and averaged given its high level of internal consistency ($\alpha = 0.86$) with a high score indicating higher job autonomy. To ensure the robustness of the job autonomy scale, the authors additionally employed principal component factor analysis to predict a factor score of job autonomy (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.87, Bartlett test of sphericity: $p < 0.001$, eigenvalue = 3.24, proportion of variance explained = 67%) and yielded similar results (available upon request). To consider the heterogeneity of job autonomy, we distinguished between job task control (autonomy over job tasks, work manner and task order) and schedule control (autonomy over work pace and work hours). Reassuringly, our robustness check indicates that our main results remain similar for both types of job autonomy (see Tables A2-A3).

Moderators: gender ideology

Our moderator was spousal and self-gender ideology, which was measured by three items capturing their attitudes towards gendered household division of labor. Specifically, the questionnaire asked respondents about the extent to which they agree with the following three statements: “pre-school child suffers if mother works,” “family suffers if mother works full-time,” “husband should earn and wife should stay at home,” on a five-point scale ranging from 1 (strongly agree) to 5 (strongly disagree). Given the high level of internal consistency among the three items ($\alpha = 0.80$), the
responses were first reversed and then averaged to construct a measure of gender ideology. It ranged from 1 (most egalitarian) to 5 (most traditional) with a higher score indicating a more traditional orientation. The study also used principal component factor analysis to construct a factor score of gender ideology (Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.65, Bartlett test of sphericity: p < 0.001, eigenvalue = 2.14, proportion of variance explained = 71%) and yielded similar results (available upon request).

**Covariates**

The study controlled for a number of demographic and socio-economic characteristics, which were shown in previous research to be related to either job autonomy or mental health (Chung & van der Lippe, 2020). These variables included respondent’s age, spouse’s age, marital status (including two categories: “married” and “cohabited”), parenthood status, number of children, logged monthly household income, housework hours ratio between couples (wives’ housework hours divided by husbands’ housework hours), spouse’s mental health, respondent’s and spouse’s occupational class. Occupational class was measured by the National Statistics Socio-Economic Classification (NS-SEC) in the United Kingdom, which was an adapted version of Erikson–Goldthorpe–Portocarero class scheme. The NS-SEC occupational class scheme consisted of three categories: “Higher-class occupations” (managerial and professional jobs), “Middle-class occupations” (such as clerical, sales, service, and small employers and own account workers), and “Lower-class occupations” (semi-routine and routine jobs). Finally, wave dummies were controlled for in all models to consider potential period effects. It should be noted that we were only able to control for time-varying variables because our analytic approach automatically took into account all variables with no or little within-individual variation such as race and family backgrounds as well as unobserved characteristics including personality and career motivations (for more details, see Analytic approach section). For more details about descriptive statistics of analytic variables in this study, see Table 1 below.

**Analytic Approach**

Given that the study used panel data and the outcome variable was metrical, this study used two-way fixed effects linear regression models. This method was superior to methods based on cross-sectional data such as ordinary least squared regression in terms of causal inference (Allison, 2009). By focusing on “within-individual” variation (that is, how changes in job autonomy were linked to changes in mental health within individuals over time), fixed effects regression eliminated all time-constant unobserved heterogeneity and confounding effects (Allison, 2009). The method thus enabled a more accurate estimate of the causal relationship between job autonomy and mental health (Allison, 2009). To examine the relationship between job autonomy and mental health for employed women, the authors began by estimating the following fixed effects model.

\[
\text{Mental health}_{it} = \beta_1 \text{Job autonomy}_{it} + \beta_2 \text{Covariates}_{it} + c_i + \mu_{it}
\]
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Mental health, which was measured at time point \( t \) for individual \( i \), was the dependent variable that measured mental health for individual \( i \) at time point \( t \). Job autonomy, which denoted the level of job autonomy for individual \( i \) at time point \( t \), was the explanatory variable capturing the level of job autonomy for individual \( i \) at time point \( t \). Covariates referred to all (time varying) covariates controlled for in the model. Additionally, \( c_i \) referred to the individual-level time constant error term (which would be eliminated and fully controlled during the analysis), and \( \mu_{it} \) denoted other individual-level time varying error term.

Starting from the above equation, we then investigated whether job autonomy interacted with self or spousal gender ideology to affect mental health. It should be noted that because gender ideology has little within-person variation over time, its main effect on mental health is hard to examine for within-person estimation methods such as fixed effects model. Thus, we explore the role of gender ideology via examining its interaction effects with job autonomy.

Results

Main results

Table 2 showed a number of fixed effects models to investigate the relationships between job autonomy and mental health for employed women. Model 1 shows that employed women with higher job autonomy tend to have significantly better mental health. The results indicated that

Table 1 Sample Characteristics

|                      | Women       | Men         | Min  | Max  |
|----------------------|-------------|-------------|------|------|
| Mental health, M (SD)| 24.92 (4.98)| 25.84 (4.42)| 0    | 36   |
| Job autonomy, M (SD) | 2.98 (0.77) | 3.13 (0.78) | 1    | 4    |
| Gender ideology, M (SD) | 3.60 (0.86) | 2.53 (0.86) | 1    | 5    |
| Age, M (SD)           | 42.88 (10.65)| 44.68 (10.24)| 18   | 65   |
| Marital status, %     |             |             |      |      |
| Married               | 80.72       | 80.72       |      |      |
| Cohabited             | 19.28       | 19.28       |      |      |
| Parenthood status, %  |             |             |      |      |
| No                    | 49.98       | 49.98       |      |      |
| Yes                   | 50.02       | 50.02       |      |      |
| Number of children, M (SD) | 7.77 (0.45) | 7.77 (0.45) | 5.07 | 9.80 |
| Logged household income, M (SD) | 7.77 (0.45) | 7.77 (0.45) | 5.07 | 9.80 |
| Occupational class, %  |             |             |      |      |
| Higher-class occupations | 49.95 | 54.03 |      |      |
| Middle-class occupations | 24.57 | 23.4 |      |      |
| Lower-class occupations | 25.48 | 22.57 |      |      |
| Housework hours ratio between couples, M (SD) | 3.38 (4.42) | 3.38 (4.42) | 0.04 | 91  |
| Number of person-wave observations | 15,360 | 15,360 |      |      |
| Number of respondents  | 6,738       | 6,738       |      |      |

Note. M = Means, % = Proportions, SD = Standard deviations
health (p<0.05). This lends support to hypothesis 1, confirming the positive effect of job autonomy on mental health in nationally representative sample. Model 2 includes the interaction term between job autonomy and spousal gender ideology and shows that the interaction is positive and significant (p<0.05), supporting the hypothesis 2.

To better understand the interaction effect between job autonomy and spousal gender ideology for women, Fig. 1 used coefficients in Model 3 to predict mental health scores for women with high and low job autonomy (when job autonomy equals 4 and 1) and traditional and egalitarian spouses (when spousal gender ideology equals to 5 and 1). Figure 1 showed that when women’s spouses had an egalitarian gender ideology, the women with either high or low job autonomy tended to have similar levels of mental health. In other words, for women with family support whether they had organizational support such as job autonomy did not affect their mental health. In contrast, for women without family support (that is, their spouses had a traditional gender ideology), lack of organizational support (i.e., low job autonomy) could undermine their mental health, whereas presence of high job autonomy could significantly improve their mental health to a similar level of their counterparts with egalitarian spouses. Overall, Fig. 1 showed that job autonomy as a form of organizational support is of great importance for employed women’s mental health when their spouses held a traditional gender ideology.

To eliminate the alternative explanations, we examined whether wives’ gender ideology moderates the benefits of job autonomy for men and whether self-gender ideology moderates the benefits of job autonomy for women. Model 1 in Table 3 shows that in line with hypothesis 3a, the interaction effect between job autonomy and spousal (wives’) gender ideology on men’s mental health is not significant. This suggests that the mental health benefits of job autonomy for men do not depend
on their wives’ gender ideology. Model 2 shows that consistent with hypothesis 3b, the interaction between job autonomy and self-gender ideology is not significant for women. This suggests that for women spousal gender ideology is a more important indicator of their family disadvantage than their own gender ideology socialized before marriage or cohabitation. Overall, these results help us exclude alternative explanations and confirm the robustness of our main findings.

Robustness checks

To ensure the robustness of the results, we have conducted a number of further analyses. First, we repeated all analyses in Table 2 for employed women’s spouses or partners in Table A1 in supplementary files. Overall, we find that men within dual-earner couples with high job autonomy tend to have significantly better mental health. This result suggests that job autonomy can benefit mental health of both men and women within a household. However, the interaction terms between job autonomy and self or spousal gender ideology are not significant for men. In contrast to women, this suggests that the mental health benefits of job autonomy for men do not depend on their self and spousal gender ideology. This further supports our argument that women’s rather than men’s mental health depend on both job autonomy and spousal gender ideology. Second, to consider the heterogeneity of job autonomy we distinguished between job task control and schedule control, and then repeated the analyses in Table 2 in Table A2 in supplementary files. Overall, we find that higher levels of both types of job autonomy are associated with better mental health for employed women.
And there are also significant interaction effects between spousal gender ideology and both types of job autonomy. This confirms our main result that employed women who have low job autonomy and traditional spouses suffered a “double jeopardy” in mental health. Overall, these results suggest that our main findings hold true for different types of job autonomy and are robust to alternative variable specification. Next, in Table A3 in supplementary files we examined the interaction between job autonomy and housework hours ratio between couples. The result shows that the interaction effect is not significant, lending support to our argument that spousal gender ideology can better represent inequalities between couples than housework hours. Finally, in Table A4 in supplementary files we repeated the analyses in Table 2 by using alternative measure of mental health namely GHQ-12 casesness score. Reassuringly, we have obtained similar results that spousal gender ideology (rather than self gender ideology) moderates the benefits of job autonomy for employed women.

**Discussion and conclusions**

Using nationally representative, household-level panel survey of 6,738 British couples from 2010 to 2020, the article tested the interaction between employed women’s job autonomy and spousal gender ideology in determining their mental health. We found that job autonomy was significantly associated with both men and women’s better mental health, but the association between job autonomy and women’s, but not men’s, mental health was positively moderated by traditional spousal gender ideology. Women who lacked job autonomy and had a more traditional husband suffered most in mental health, while women with egalitarian husbands had a high level of mental health regardless of job autonomy.
Theoretical contributions

The major contribution of the article is to integrate hitherto separated streams of literature on job demand and control and gender division of household labor, which offer their respective yet incomplete explanations on women’s low level of mental health. We argue that while job autonomy and spousal gender ideology are perhaps immediate causes of low mental health, the two concepts are two dimensions of women’s structural disadvantage across social domains as a root cause of mental health, because the former is a manifestation of women’s workplace disadvantage, while the latter is a demonstration of their family disadvantage. Moreover, our results uncover the dynamic interaction between workplace and family disadvantages, suggesting that (1) job autonomy does not suffice to improve women’s mental health if the gender revolution in men’s ideology continues to be stalled; and (2) if our society becomes more egalitarian in the future, women may no longer need to struggle for organizational accommodations of their family needs to achieve better mental health.

The article provides early evidence for the theoretical perspective of gender as a social structure, which conceives gender as an institutionalized system of power relations enacted in everyday interactions (Ridgeway & Correll, 2004) and locates gender inequality in the individual, interactional and institutional levels across social domains (Risman, 2018). First, the article is among the first quantitative studies that answer the call to study women’s subjective experiences and cumulative disadvantages across social domains (Scarborough & Risman, 2017). Future research should no longer treat employment and family as “separated spheres” (Cha, 2010). Rather, more research needs to explore the complex interactions between women’s experiences in the public and private spheres (De Simone et al., 2014). Second, our results demonstrate the utility of analyzing gender inequalities in spousal interactions (Yucel & Fan, 2019), especially in the interactional expectations between couples (West & Zimmerman, 1987). While recent research evidenced the effects of husbands’ material work conditions, such as temporary employment (Inanc, 2018), and overwork (Cha, 2010), on wives’ career and mental health, more research should follow our example to examine the cultural aspects of family dynamics, such as how husbands’ ideologies, attitudes, values, preferences, and biases shape gender inequalities within and outside the families. Third, we corroborate with a previous finding that spousal gender ideology plays a more influential role than women’s self-gender ideology in women’s lives (Evertsson, 2014), evidencing again the institutionalized nature of gender inequalities. Fourth, quantitative studies of interactional and institutional aspects of gender inequalities call for a new data collection strategy: in addition to surveying women themselves, household-level data should be collected from the husbands or partners on their ideologies and interactional routines.

Additionally, the article contributes to research on job autonomy. First, while organizational behavior research on job autonomy often focused on individual employees (Häußer et al., 2010), we draw from a national sample to show that it is also a social determinant of mental health and a source of social inequalities. On the flip side, although sociologists have explored the mental health consequences of schedule control, a particular dimension of job autonomy (Schneider & Harknett, 2019), we adopt a composite measure of job autonomy, which captures employees’ control over not
only where and when to work, but also how to work, thus offering a more holistic perspective on workers’ power within organizations (Wood, 2020). Following our example, sociologists of labor market can investigate the population-level mental health effects of other psychosocial work conditions, drawing from and extending the rich literature in organizational behavior (Goh et al., 2016). Second, the mental health benefits of job autonomy were largely evidenced in the precarious workers (Schneider & Harknett, 2019) and white-collar professionals in the United States (Kelly et al., 2010). We answered the call to study job autonomy in more diverse populations (Chung & van der Lippe, 2020), and used a representative sample of another national workforce to locate its mental health benefits across occupational statuses and institutional contexts.

**Policy implications**

Our findings also inform labor and family policies. Although we find that job autonomy promisingly offset the adverse effects of having a traditional husband for women, if the shift towards an egalitarian gender ideology happens at the societal level, women may no longer need to struggle for the usage of organizational work-family policies or to fear about the negative consequences on their career. This is especially true for workers in many developing countries who may not have access to formal work-family policies, or even in countries with legal work-family policies but employers tend to “decouple” the policies and create implicit barriers during the policy usage. More ideally, equal divisions of labor within families and the cultural expectation thereof could shift the vast burden away from organizations and governments to tackle the prevalence of work-family conflict through work-family policies. Therefore, besides mitigating the immediate causes of women’s mental health, public policies should tackle the root cause by empowering women and changing men’s gender ideology in the society.

**Limitations**

There are caveats worth mentioning, which are directions for future research. First, while the study used individual fixed effects to address time-invariant confounders, it could not eliminate potential time-variant confounders. Thus, like other observational studies, the study cannot assert causality between job autonomy and mental health (Allison, 2009). Second, while previous research shows that gender ideology is relatively stable over the life course, it is possible that some respondents changed their jobs after changes in their gender ideology during the ten-year period of the panel survey, raising a sorting problem that cannot be fully ruled out by the fixed effects model. Therefore, the same caveats apply to the causal interpretation of the moderation analyses. Third, although the United Kingdom shared societal and economic features with other western, industrialized countries (Angrave & Charlwood, 2015; Inanc, 2018; Kamerāde et al., 2019; Wood, 2020), our findings should be interpreted within this context because both job autonomy and family gender ideology were institutionally and historically contingent (Lyness et al., 2012). Whether and how cross-cultural differences in gender and family norms moderated the mental health
effects of work environments is a promising venue for future research. Fourth, while we used panel survey to reduce common-variance biases (Siemsen et al., 2010), our self-reported outcome may suffer from social desirability biases, which may also differ across genders. Recent research also suggests that gender ideology may be a multidimensional rather than binary concept (Grunow et al., 2018), which opens the door for additional research. Fifth, our survey ended before the Coronavirus Disease-2019 (COVID-19) pandemic. Although the pandemic has popularized flexible work arrangements (Dunatchik et al., 2021) and increased the relevance of the study, it could have changed the relationship between gender and mental health in the workplaces (Li and Wang, 2020) and present opportunities for follow-up research. Sixth, we focus on heterosexual couples, calling more research on the generalizability of our findings to people with other sexual orientations. Seventh, while the study focused on the moderating roles of self and spousal gender ideology, future research could explore possible mediators or intervening mechanisms that operate on the nexus between job autonomy and mental health of employed women, such as reduced leisure time activities (Wang et al., 2021b) or social support from relatives and friends (Yucel, 2019). Finally, while this study focuses on job autonomy, future research could explore the effects of other labor market interventions (e.g., furlough, shorter working hours, Active Labor Market Programs) on self and spousal mental health (Wang et al., 2021a, 2022a).

Conclusions

In conclusion, employed women’s job autonomy and spousal gender ideology interact to determine their mental health, and their disadvantages across the work and family domains cause a “double jeopardy.” Future research and public policies should focus on women’s empowerment, particularly through changing men’s traditional gender ideology at the societal level, to reduce women’s work-family conflict and improve their family well-being.

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References

Aassve, A., Fuochi, G., & Mencarini, L. (2014). Desperate Housework: Relative Resources, Time Availability, Economic Dependency, and Gender Ideology Across Europe. *Journal of Family Issues, 35*(8), 1000–1022

Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society, 4*(2), 139–158

Allison, P. D. (2009). *Fixed effects regression models*. SAGE
Angrave, D., & Charlwood, A. (2015). What is the relationship between long working hours, over-employment, under-employment and the subjective well-being of workers? Longitudinal evidence from the UK. Human Relations, 68(9), 1491–1515

Ashwin, S., & Isupova, O. (2018). Anatomy of a Stalled Revolution: Processes of Reproduction and Change in Russian Women’s Gender Ideologies. Gender & Society, 32(4), 441–468

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. Journal of Managerial Psychology, 22(3), 309–328

Bass, B. C. (2015). Preparing for Parenthood?: Gender, Aspirations, and the Reproduction of Labor Market Inequality. Gender & Society, 29(3), 362–385

Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who Did, Does or Will Do It, and How Much Does It Matter? Social Forces, 91(1), 55–63

Bird, C. E., & Ricker, P. P. (2008). Gender and Health: The Effects of Constrained Choices and Social Policies. Cambridge University Press

Bloom, N., Liang, J., Roberts, J., & Ying, Z. J. (2015). Does working from home work? Evidence from a Chinese experiment. The Quarterly Journal of Economics, 130(1), 165–218

Burgard, S. A., & Lin, K. Y. (2013). Bad Jobs, Bad Health? How Work and Working Conditions Contribute to Health Disparities. American Behavioral Scientist, 57(8), 1105–1127

Cha, Y. (2010). Reinforcing Separate Spheres: The Effect of Spousal Overwork on Men’s and Women’s Employment in Dual-Earner Households. American Sociological Review, 75(2), 303–329

Chung, H., & van der Lippe, T. (2020). Flexible Working, Work–Life Balance, and Gender Equality: Introduction. Social Indicators Research, 151(2), 365–381

Davis, S. N., & Greenstein, T. N. (2009). Gender Ideology: Components, Predictors, and Consequences. Annual Review of Sociology, 35(1), 87–105

Davis, S. N., & Greenstein, T. N. (2013). Why Study Housework? Cleaning as a Window Into Power in Couples: Why Study Housework? Journal of Family Theory & Review, 5(2), 63–71

De Simone, S., Lampis, J., Lasi, D., Serri, F., Cicotto, G., & Putzu, D. (2014). Influences of Work-Family Interface on Job and Life Satisfaction. Applied Research in Quality of Life, 9(4), 831–861

Dunatchik, A., Gerson, K., Glass, J., Jacobs, J. A., & Stritzel, H. (2021). Gender, Parenting, and The Rise of Remote Work During the Pandemic: Implications for Domestic Inequality in the United States. Gender & Society, 35(2), 194–205

England, P., Levine, A., & Mishel, E. (2020). Progress toward gender equality in the United States has slowed or stalled. Proceedings of the National Academy of Sciences, 117(13), 6990–6997

Evertsson, M. (2014). Gender Ideology and the Sharing of Housework and Child Care in Sweden. Journal of Family Issues, 35(7), 927–949

Goh, J., Pfeffer, J., & Zenios, S. A. (2016). The Relationship Between Workplace Stressors and Mortality and Health Costs in the United States. Management Science, 62(2), 608–628

Goldberg, D. P., & Williams, P. (1988). User’s Guide to the General Health Questionnaire. Windsor: NFER-Nelson

Government of the United Kingdom (2020). Flexible Working. https://www.gov.uk/flexible-working

Grunow, D., Begall, K., & Buchler, S. (2018). Gender Ideologies in Europe: A Multidimensional Framework. Journal of Marriage and Family, 80(1), 42–60

Grzywacz, J. G., & Bass, B. L. (2003). Work, Family, and Mental Health: Testing Different Models of Work-Family Fit. Journal of Marriage and Family, 65(1), 248–261

Häussler, J. A., Mojsisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand–Control (-Support) model and psychological well-being. Work & Stress, 24(1), 1–35

Hu, Y., & Yucel, D. (2018). What Fairness? Gendered Division of Housework and Family Life Satisfaction across 30 Countries. European Sociological Review, 34(1), 92–105

Inanc, H. (2018). Unemployment, Temporary Work, and Subjective Well-Being: The Gendered Effect of Spousal Labor Market Insecurity. American Sociological Review, 83(3), 536–566

Institute for Social and Economic Research (2022). Understanding Society: Main Survey User Guide. Available at: https://www.understandingsociety.ac.uk/sites/default/files/downloads/documentation/mainstage/user-guides/mainstage-user-guide.pdf

Kalleberg, A. L. (2012). Job Quality and Precarious Work: Clarifications, Controversies, and Challenges. Work and Occupations, 39(4), 427–448

Kameradé, D., Wang, S., Burchell, B., Balderson, S. U., & Coutts, A. (2019). A shorter working week for everyone: How much paid work is needed for mental health and well-being? Social Science & Medicine, 241, 112353
White House (2021, April 28). Fact Sheet: The American Families Plan. https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/28/fact-sheet-the-american-families-plan/

Wood, A. J. (2020). Despotism on demand: How power operates in the flexible workplace. Cornell University Press

Yucel, D. (2019). Job Autonomy and Schedule Flexibility as Moderators of the Relationship Between Work-Family Conflict and Work-Related Outcomes. *Applied Research in Quality of Life, 14*(5), 1393–1410

Yucel, D., & Fan, W. (2019). Work–Family Conflict and Well-Being among German Couples: A Longitudinal and Dyadic Approach. *Journal of Health and Social Behavior, 60*(3), 377–395

Yucel, D., & Minnotte, K. L. (2017). Workplace Support and Life Satisfaction: The Mediating Roles of Work-to-Family Conflict and Mental Health. *Applied Research in Quality of Life, 12*(3), 549–575

Zipp, J. F., Prohaska, A., & Bemiller, M. (2004). Wives, Husbands, and Hidden Power in Marriage. *Journal of Family Issues, 25*(7), 923–948

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