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Can Labor Make Women Happier?

The Relationship Between Labor Time, Cross-generational Care and Women's Subjective Well-being——A Research Based on CFPS (2016)

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ARTICLE INFO	ABSTRACT
	Marxism women-theory advocates women to achieve gender equality and liberation through employment. But due to the influence of culture, if the promotion of female employment, women may face the dual pressure of housework and work, that is, the promotion of female employment may deviate from the ruling effect of people's happiness. This study aims to explore the relationship between labor time, cross-generational care and women's subjective well-being by using the data of CFPS (2016). Findings are as follow. Firstly, the time spent on housework differs between men and women, and the burden of housework still falls on women. Secondly, women's employment reduces women's subjective well-being to a certain extent, but this effect turns into a positive one under the moderating effect of cross-generational care. China's family culture weakens the negative impact of the increase in working hours of women to a certain extent.

1. Introduction

The word happiness has been a hot topic in various disciplines since ancient times, and it is also the ruling effect that each ruling party hopes to achieve. In the context of the China Dream, it also reflects whether the policy is truly for the people. The Women's Federation is one of the mass organizations under the leadership of the Communist Party of China. It is the bond and bridge between the party and the government in linking women. Its work adheres to the Marxist view of women and implements the national policy of equality between men and women. Under Marxism, gender oppression is a form of class oppression, and women bear multidimensional pressure: in the family field, women are gradually degraded to second-class citizens while doing unpaid housework; in the field of social labor, society's expectations of women's injustice, the social status of male domination, and the individual's own objective situation, women can only choose secondary

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occupations with low wages, fewer opportunities, and lack of security.

From the perspective of Marxist women, the basic function of the Women's Federation is to promote gender equality, especially equality in the economic field. To achieve this equality, the most basic thing is to allow women to participate in production and to get out of unpaid housework as much as possible.[1,2] Therefore, the Women's Federation has implemented many policies to promote women's employment and labor around the Law on the Protection of Women's Rights and Interests of the People's Republic of China and the Outline for the Development of Chinese Women (2001-2010).

Policies promoting women's employment are questioned: first, drastic social change weakens the function of policies. The drastic social changes have reduced the social status of women. No matter how the policy is formulated and implemented, it will not help achieve gender equality.[1] Second, the mainstream culture of society has made policy counter-productive. Under the mainstream of the society, and with the rise of overtime culture, and the responsibility of housework falls on women, the formulation and implementation of this kind of policy has virtually shaped the dual role of women who not only deal with social labor, but also mainly undertake household chores in the family, forming a double burden.[4] Based on the above questions, this paper pays attention to whether labor can improve the subjective happiness of female workers.

2. Review of Previous Research

The main research of subjective well-being follows the perspectives of social norms and social comparison. The former focuses on the impact of inequality on the group level, and considers happiness as the product of income differentiation within the group; the latter is concerned with the impact of inequality on individuals and believes that happiness is the product of individuals based on a frame of reference in the group.[5]

On the research topics of labor and happiness, the research results have been extensively studied in social security, labor economics and other disciplines. In a recent study, Hou used the survey data to prove that a reasonable employment policy is benign to the subjective benefits of "a sense of gain."[6] Through analysis of CLDS data, Li and others found that working hours were too short or too long, and the damage to workers' well-being was severe. Moderate length of work was benign.[7] Wu and others focused their research on happiness on a single female group. The study believes that in China, the employment status of women cannot be dually divided

into yes or no, and the factors of the system should be considered, because there are differences in employment inside and outside the system; in addition, the family has asylum and conflict functions for female workers.[8] Most of the previous researches tended to old institutionalism, which considered the impact of formal institutions and norms on individuals' behavior patterns. This paper supports the criticism of Wu and others on past research preferences, and argues that the study of labor on happiness needs to be brought into the perspective of new institutionalism.[9] Neo-institutionalism believes that in addition to formal systems, the institutional environment of informal institutions such as social mainstream values, social culture, and social norms has an impact on human behavior patterns. These factors happen to be ignored by most research institutes in the past, and they are the focus of this paper. From a social and cultural perspective, there will be multiple cultural overlaps in China with social transformation: first, with regard to women's labor, there are calls for advocacy for the rise of feminist culture, as well as the traditional the man is in charge of the outside affairs, and the woman is in charge of the inside affairs; second, the traditional Chinese family culture is still infiltrated into the current Chinese family, which has a great influence on the behavior of Chinese families, and cross-generational care has a significant impact on the labor supply of families and women.[10]

The puzzles after reviewing are mainly as follow. Firstly, what is the gender distribution of housework time in today's social transition period? Secondly, what role do housework and labor have in women's subjective well-being? Moreover, under the influence of family culture, can cross-generational care regulate the effect of working hours on women's subjective well-being?

3. Research Design

3.1 Research Methods

This research adopts quantitative research methods: under the positivist methodology, researchers are separated from the empirical world of the research object, adopt a neutral value orientation, and conduct causal inference research methods by analyzing data. [11,12]

The author uses the method of bivariate analysis to answer the question of the gender distribution of housework time; use the method of multiple regression analysis to explore the relationship between housework, work labor and female subjective well-being through statistical control through nested modeling; then use the method of interaction effect analysis to explore the regulating effect of cross-generational care on the previous research model.

3.2 Research Subjects and Data Sources

The author examined a sample of working age, in accordance with the provisions of the "Interim Measures of the State Council on Workers' Retirement and Resignation".

The retirement age of men is 60 years old, and the retirement age of women is 55 years old, therefore, the samples less than 18 years old, females 55 years or older and males 60 years or older are excluded. Considering that the sample may include individuals who are still studying full-time, the above individuals are excluded. In terms of data, the author uses the 2016 China Family Panel Studies (CFPS) plane survey data conducted by the Institute of Social Science Survey, Peking University (ISSS). The survey uses stratified PPS sampling, the sample covers 25 provinces / municipalities / autonomous regions, and the quality of the survey is controlled by the CATI method. The survey's quality is quite good.

3.3 Operationalization of Variables

3.3.1 Operationalization of Dependent Variables

The subjective well-being in CFPS is measured using a 10-level scale. The question is: "How happy are you (points)". However, the author does not use this measurement because the data loss of this subject is serious. In previous studies on subjective well-being, life satisfaction was used as an alternative measure, and it has a high degree of reliability and validity, so this paper follows this method. [13,14] CFPS uses a Likert scale to measure life satisfaction. The question is: "Satisfaction with life".

3.3.2 Operationalization of Core Variables

The core independent variables of this study are working time, housework time, and cross-generational care. For the measurement of working hours, CFPS distinguishes between main working hours and general working hours. It measures weekly working hours in hours. In this research, the main working hours and general working hours are combined, and the pursuit of monthly income in the control variable is consistent with the estimates, and converted into monthly working hours.

Regarding housework time, the CFPS 2016 survey divided housework time into weekday housework time and Saturday and Sunday housework time. Similar to the above-mentioned treatment of work time, the author first converted workday and housework time into monthly housework time.

Regarding cross-generation care, the CFPS 2016 survey asked "Does your father help you with household chores?" Or "Does your mother help you with household chores?" The answer to the question is missing values, yes, no. The author 's virtual coding process is: The missing values are merged into a missing value, the both are merged into a 0 value, and the rest are merged into a 1 value.

3.3.3 Operationalization of Control Arguments

Previous research should find that the factors that affect subjective well-being are: age, employment status, household registration, political status, marital status, education, religious beliefs, self-assessed health, and income, so these variables need to be controlled statistically.
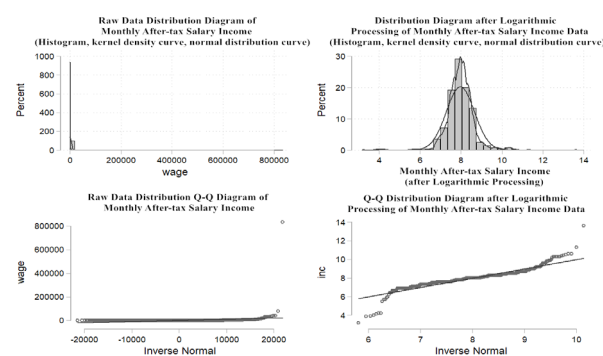

Figure 1. Comparison of monthly after-tax salary data processing

The operation of the control variables is as follows: first, the age and its square terms, and because the data is the 2016 survey data, the age value is the age in 2016, in order to avoid the influence of too large age value on the small value of the dependent variable, the author reduced the age and its square term by 10 times. Second, employment status. According to Wu's research, the author divides employment status into three categories. The first category is non-employment, the second category is employment within the system, and the third category is employment outside the system. Third, the household registration of the interviewees also takes the form of two-part virtual coding, assigning urban residents a value of 1, and otherwise assigning a value of 0. Fourth, political identity, taking into account the premium of party membership, also takes the form of two-part virtual coding, assigning party members to 1, otherwise assigning 0. Subjective health status, in order to facilitate research and interpretation, re-encode this variable from "very unsatisfied" to "very satisfied" in the order of 1-5. Fifth, the marital status, the marriage with a spouse is assigned a value of 1,

otherwise it is assigned a value of 0.Sixth, education level, the education level is divided into five categories, the first category is education, the second category is completion of primary education, the third category is completion of secondary education, the fourth category is completion of higher education, and the fifth category is graduate education and above. Seventh, religious beliefs take the form of two-part virtual coding, and the answer "no religion" is assigned a value of 0, otherwise it is assigned a value of 1. Eighth, self-assessment of health, according to the original CFPS measurement. Ninth, monthly work income after tax. CFPS measures monthly work income, but distinguishes between general work and main work, so consolidation is required. (Figure 1.)

The author has performed natural logarithmic processing of monthly work income. The reason why the logarithmic transformation is performed makes the variable more consistent with the normal distribution. This operation can be attributed to the following two reasons: First, the effect of interval differences can be reduced after logarithmic conversion, that is, if the original data is used, the model's estimation results will be affected by larger values. After logarithmic conversion, the sensitivity of smaller values to differences can be improved, making the model estimation more unbiased. Second, the logarithmic transformation makes the interval of the variable narrower, and the data appears more robust without changing the nature of the variable. As shown in Figure 1 above, the initial data is more severely skewed to the right. After logarithmic processing, the situation of skewed to the right is improved, which is more in line with the normal distribution.

4. Conclusion

4.1 Housework Time Vary Between Men and Women

According to the research hypothesis, this study first wants to understand whether there is a significant difference in the length of household chores between men and women. Because gender is a dummy variable that takes women as the reference frame, and housework time is a continuous variable, the method used to test whether there is a difference between groups is the group design T-test. Before the T-test, you need to test whether there is heteroscedasticity.

The null hypothesis for testing the homogeneity of variance is that there is no heteroscedasticity between the two groups, that is:

H0: sd (female) / sd (male) = 1

The alternative hypothesis is that the variance between the two groups is not uniform, that is:

Ha: sd (female) / sd (male) ≠ 1

Table 1. Test of Homogeneity of Variance (SD-test)

Group	Mean	Stand Deviation	95% CI	
Female	67.71	41.77	66.91	68.50
Male	37.31	40.12	36.58	38.04
Methods:				
Ratio=S.D (0) / S.D (1)			f =1.0837	
H0: Ratio=1			df=10423,11629	
Ha: Ratio<1		Ha: Ratio≠1	Ha: Ratio>1	
Pr(F<f)=1.0000		2*Pr(F>f)=0.0000	Pr(F>f)=0.0000	

As shown in Table 1, the variance of the male and female samples is not uniform. Therefore, the T-test of the uneven variance is performed. The null hypothesis is that males and females have no significant difference in the hours of housework, namely:

H0: mean (female) -mean (male) = 0

The alternative hypothesis is that males and females have significant differences in the hours of housework, namely:

Ha: mean (female) -mean (male) ≠ 0

Table 2. Differences between genders in housework hours (T-test)

Group	Mean	Stand Deviation	95% CI	
Female	67.71	41.77	66.91	68.50
Male	37.31	40.12	36.58	38.04
Methods:				
Diff.= Mean (0) - Mean (1)			t =54.9750	
H0: Diff.=0			Satterthwaite's df=21569.5	
Ha: Diff.<0		Ha: Diff.≠0	Ha: Diff.>0	
P(T<t) = 1.00		P(|T|>|t|) = 0.00	P(T>t) = 0.00	

As shown in Table 2, the value of t is 54.98, and the alternative assumes that the value of P corresponding to Ha is 0.000. The original hypothesis that there is no significant difference in the mean between the two is discarded. From the average, women's monthly housework hours are 30 hours longer than men's, that is, an average of one hour more per day. From the above test results, it can be seen that the time of housework is different between men and women, and the burden of housework still falls on women.

4.2 Labor Time Does Not Significantly Reduce Women's Happiness

The dependent variable is a five-level ordered variable. It should be modeled using Ordered Logistic (O-Logit).

Model 0: *sati_i = πX_i + ε_i;*
Model 1: *sati_i = β_1 mwhr + πX_i + ε_i;*
Model 2: *sati_i = β_1 mwhr + β_2 mhwhr + πX_i + ε_i;*

Model 3: $sati\_i = \beta\_1\ mwhr + \beta\_2\ mhwhr + \beta\_3\ mwhr \times kuadai + \pi X\_i + \varepsilon\_i.$

In terms of variables, sati refers to life satisfaction, mwhr refers to monthly working hours, mhwhr refers to monthly hours of housework, X refers to a control variable matrix, and ε refers to a random disturbance term. In terms of coefficients, β_1 and β_2 are the interaction coefficients of the two core independent variables, and π is the correlation coefficient of the control variable matrix. The subscript i refers to the i-th case.

Table 3. Regression analysis table

Life Satisfaction（sati）	Model 1	Model 2	Model 3
Control Variables（X）	β	β	β
Monthly working hour	-0.002	-0.002	-0.008***
(mwhr)	(0.001)	(0.001)	(0.002)
Monthly hours of housework		-0.002	0.001
(mhwhr)	-	(0.003)	(0.003)
Cross-generational care			-1.899**
(kuadai)	-	-	(0.588)
Interaction Item			0.009***
(mhwhr × kuadai)	-	-	(0.003)
N	434	434	351
Pr>F	0.0000***	0.0000***	0.0000***
Pseudo R²	0.0436	0.0438	0.0595

Notes: 1) Standard error reported in parentheses 2) *** p <0.001, ** p <0.01, * p <0.05, + p <0.1.

Looking at the model as a whole, as shown in Figure 2, from empty model to Model 3, each model has a P value of 0.000, and the model is significantly effective. Pseudo R² (Pseudo R²) is an indicator of model explanatory power, and Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) are indicators of model selection. As shown in Figure 2, from the zero model to the full model, as the number of variables increases, the pseudo R² value increases, that is, the explanatory power of the model increases. In addition, with the increase of the number of variables, the AIC and BIC values are decreasing. Of the four models, the AIC and BIC values of the full model are the smallest, and the model with ΔBIC> 10 is of better quality. To sum up, Model 3 is the ideal model.
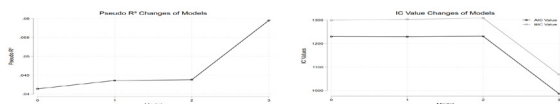

Figure 2. The change diagram of the model's Pseudo R² and IC value of the model

Control variables, monthly working hours were included in Model 1, and control variables, monthly working hours, and monthly household labor hours were included in Model 2. Although they had negative effects on life satisfaction, they were not significant. Model 3 puts in the interactive variables of control variables, monthly working hours, monthly household chores, and cross-generational care and monthly working hours. The results show that under the control of other variables: for every 1 hour of increase in monthly working hours, the probability of women's life satisfaction improving by one level is significantly reduced by 0.08; compared with women who do not have cross-generational caregivers, women who have cross-generational caregivers have a significantly lower probability of an increase in life satisfaction by 1.89; the effect of the interaction term is a positive effect, that is, compared with no cross-generational caregiver, the monthly working time of women in families with cross-generation care is increased by 1 hour, and the possibility of an increase in life satisfaction by one level is significantly increased by 0.009.

4.3 Cross-generation Care Can Reduce the Negative Impact of Women's Participation in Labor

Continuing from the above, the improvement of women's monthly working hours on life satisfaction will be significantly affected by cross-generational care, and the improvement of women's life satisfaction by cross-generational care will be affected by working hours. First, the author estimates the average marginal benefit (AME) of working hours on women's life satisfaction with or without cross-generational care. The results are shown in Table 4 below:

Table 4. Marginal effect of cross-generational care

Interaction Item		dy / dx	Stand. Error	z	P>|z|	[95%CI]	
1	0	.0004847	.0001581	3.07	0.002	.0001748	.0007946
1	1	-.0000491	.0000799	-0.61	0.539	-.0002056	.0001075
2	0	.0005465	.0001572	3.48	0.001	.0002384	.0008546
2	1	-.0000629	.0001018	-0.62	0.537	-.0002624	.0001366
3	0	.0007918	.0002047	3.87	0.000	.0003906	.0011931
3	1	-.0001125	.0001813	-0.62	0.535	-.0004678	.0002429
4	0	-.0006722	.0001686	-3.99	0.000	-.0010026	-.0003418
4	1	.0000841	.0001356	0.62	0.535	-.0001817	.0003498
5	0	-.0011509	.0003075	-3.74	0.000	-.0017536	-.0005481
5	1	.0001404	.0002268	0.62	0.536	-.0003041	.0005848

A marginal effects chart can be made according to the above table, see Figure 3 below. Taking the first line (outcome1) as an example, under the influence of cross-generation care, the probability of a life satisfaction score of 1 decreases from 0.000004847 to -0.0000491, and so on, for each additional hour of working time per month.
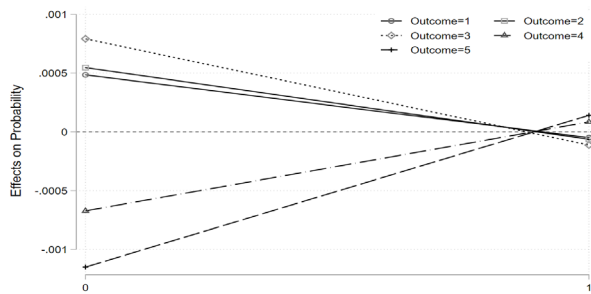
Figure 3. Marginal effects of cross-generational care

Similarly, it is possible to estimate the marginal benefits of taking care of women's lives across generations under different monthly working hours. As shown in Figure 3, with the increase of working hours, the marginal benefit of cross-generation care to women's life satisfaction increases, making the probability distribution curve distorted.
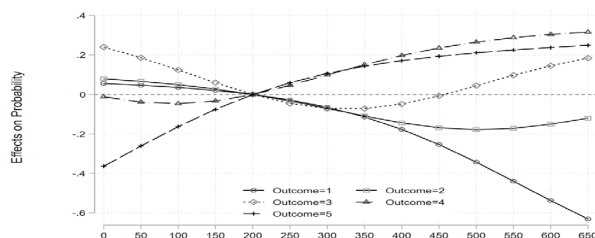

Figure 4. Marginal effects of working hours

5. Discussion

China is in a period of social transformation, and it still inherits the gender division model in traditional culture in terms of gender division of labor, and the heavy responsibility for housework falls on women. Incorporating a cultural perspective into the analysis model, the length of working hours will significantly affect women's subjective well-being, and the length of housework hours will have a small and insignificant effect on women's subjective well-being, which shows that women's participation in labor is not facing "double pressure". The most important reason is that the traditional "family culture" in China plays an important role in regulating and it has positive and negative functions on women's subjective well-being: On the one hand, cross-generational care can significantly reduce subjective well-being directly; on the other hand, cross-generational care can reduce the negative impact of women's participation in labor. Generally speaking, in the period of social transformation, cross-generational care

has a sheltering effect on women's subjective well-being.

Based on the conclusions of the study, the author's suggestions at a more macro policy-making level are as follows:

Firstly, although China's Labor Law strictly controls the employment time, the phenomenon of overtime employment still occurs in the actual operation process. Therefore, in the implementation of policies to promote women's employment, it is necessary to focus on multiple parties' control over women's working hours. Secondly, although cross-generational care can directly reduce women's subjective well-being, it can also play a regulating role when women are in the workplace and absent in the home. Therefore, it is necessary to pay attention to the construction of family style and give play to the family's asylum function for working women.

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