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Study on Influencing Factors of Mental Health of Mobile Young White-Collar Workers in China

Tao Liu[1], Lin Liu[1], Zeyu Chen[1,*] and Rong Fu[2,*]

[1]Department of Sociology, Hangzhou Dianzi University, Hangzhou, 310018, China
[2]College of Economics, Hangzhou Dianzi University, Hangzhou, 310018, China
*Corresponding Authors: Zeyu Chen. Email: m18100170994@163.com; Rong Fu. Email: Furong@hdu.edu.cn

ABSTRACT

Mobile young white-collar workers not only have the characteristics of mobile young people, but also have the characteristics of general white-collar workers. Under the influence of both, their mental health may be suffering from "double disadvantage". So, based on an ecological model of the stress process, this paper tries to use the data of the questionnaire on the mental health of mobile young white-collar workers in Zhejiang Province to explore the influence of some factors in the middle workplace and residence place on the mental health of micro individuals. The results show that: (1) The working environment with high control and low freedom and the workplace discrimination against the mobile status will have a negative impact on the mental health of mobile young white-collar workers; (2) Financial anxiety in daily life will lead to a decline in the mental health level of mobile young white-collar workers; (3) Good organizational support and neighborhood social relations can significantly relieve life pressure, so as to effectively improve the mental health of mobile young white-collar workers. It can be seen that we also need to pay more attention to the mental health of mobile young white-collar workers in order to improve their situation.

KEYWORDS

Mobile population; young white-collar workers; mental health; ecological model; stress process

Introduction

The phenomenon of population mobility is an important manifestation of social change. In China, the household registration of the mobile population does not change with the change of their place of residence, that is to say, it is mobile and unstable. Data from the Seventh National Population Census shows that China's mobile population is approximately 375,816,700, which represents a 69.73% increase compared to the previous count [1]. Among them, Zhejiang Province, a developed coastal area and the province with the most advanced private economy in China, had a mobile population of 27,919,700 in 2020, ranking second in the country [2]. At the same time, the overall pattern of China's population flow is relatively stable, and it still shows the characteristics of "near-distance flow,

intra-provincial flow, rural-urban flow, and flow to the eastern region" [3].

In the context of China's stable economic and social development and rapid urbanization process, a large number of young people from urban and rural areas are moving to cities, which has become a prominent feature of China's social transformation. This has also given rise to a group of mobile young white-collar workers, who are relatively young and well-educated among the mobile population, usually do daily work in the office, and make important contributions to the development of society. However, some underlying problems are also gradually exposed with the change of society, such as their mental health crisis.

First, scholars hold divergent perspectives regarding the correlation or underlying mechanism linking individuals'

mobile behavior and mental health. Certain scholars posit that individuals who are part of mobile population exhibit superior mental health compared to local residents who possess similar social and economic statuses. This phenomenon can be attributed to the rise in economic income experienced by individuals during the process of migration, which in turn has a favorable influence on their mental health status [4]. However, a majority of scholars maintain the contrary perspective [5–7].

In addition, compared with other types and age groups of mobile population, the young rural-urban mobile population may be in a triple vulnerable situation as rural people, foreigners and young people, and become one of the most vulnerable groups in China [8]. Hence, it is imperative to give due consideration to the mental well-being of mobile youth groups, specifically those falling under the "rural-urban mobility" classification.

Over the years, scholars have conducted numerous studies on the mobility and mental health status of vulnerable groups, including "mobile workers," "ethnic minorities," "refugees," and "children of mobile workers." These topics have garnered significant attention [9–12]. It is regrettable that there are few researches on white-collar workers among mobile youth. This is because they are often perceived as having a better working environment, higher welfare benefits, and fewer labor rights and interests' infringements, and are therefore excluded from the vulnerable group. However, in the face of high living and housing costs, as well as the intense work pressure in big cities, the mental health of this group also requires attention.

Mobile young white-collar workers often travel to and from the workplace and the living place. The influence of these meso-level fields on micro-level individuals cannot be ignored. Therefore, this paper attempts to analyze the factors and mechanisms affecting individual mental health from the meso-level by using an ecological model of the stress process and questionnaire survey data of mobile young white-collar workers in Zhejiang Province. In addition, this study also explores the relationship between organizational support, neighborhood social relations and life stress, in order to contribute to the existing research on the mental health of the mobile population.

Literature and Hypothesis

Concept of mobile young white-collar workers
According to China's household registration system, the term "population separated from households" refers to individuals whose place of residence does not match the township or street where their household registration is located, and who have been away from their registered place for more than six months. The mobile population refers to the population that is not living in households within the municipal district. According to the geographical scope of population movement, it can be divided into two types: intra-provincial mobile population and inter-provincial mobile population. Intra-provincial mobile population can be further divided into intra-county mobile population, intra-city mobile population, and other types [2].

The Medium and Long-term Youth Development Plan (2016–2025) issued by The State Council of China classifies this age group as 14–35 years old [13]. Existing research literatures also define the age of young people similarly, often as 18–35 years old.

Based on the definitions of a mobile population and young people, and with reference to Meiling Tang's survey on young white-collar workers [14], the research object of this paper is identified as "mobile young white-collar workers". This term refers to urban young people aged 18–35 who are in a state of mobility, have a college degree or above, and primarily work in an office setting.

Ecological model of the stress process
In the study of mental health, the orientations of sociology and medicine are different. Sociology aims to identify the factors that contribute to mental health disorders in social life, while medicine studies the clinical manifestations and treatment of mental health diseases. Stress is central to the study of mental health issues from a sociological perspective, and theories related to "stress processes" hold a significant position in this field [15].

The concept of the "stress process" was proposed in 1981 by Pearlin et al in a paper of the same name and has been widely used since then [16]. A complete "stress process" is primarily composed of three components: stressors, moderating resources, and outcomes. "Stressors" usually come in two forms: life events, which have an identifiable point in time, and more long-term or repeated stressors, which are major stressors. "Moderating resources" can help prevent and mitigate the effects of stress, particularly through coping mechanisms, social support, and self-concept. The amount of resources is not static and will change with social and economic conditions and stressors. "Outcomes" represent the cumulative effects of other components of the stress process. By studying multiple outcomes, researchers can identify variations in how different social groups respond to stress-related disorders [17].

On the basis of the classical stress process model, Aneshensel proposed a new paradigm in 2009, the "ecological model of the stress process", which is also developed from Bronfenbrenner's "social ecological model" [18,19]. It focuses on the background and field of people's daily lives, incorporating individuals who experience life pressures. It emphasizes that individual mental health is influenced by the interaction between meso-level structural variables and stress process variables, such as individual characteristics, stress levels, and social support [20]. In general, social environmental factors can affect mental health either directly or indirectly by increasing or decreasing protective factors [21,22].

Therefore, to sum up, macro-level social and economic structure variables influence individual personality and psychological outcomes through the meso-level life context or environment, as shown in Fig. 1. Only by paying more attention to meso-level variables can we truly connect macro social structures with individual outcomes. Meso-level is a bridge connecting the macro and micro-levels. Positive transformation at the meso-level will reduce stress
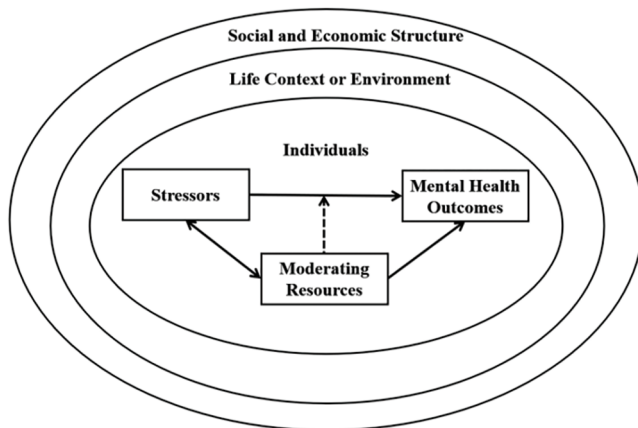
FIGURE 1. An ecological model of the stress process.

exposure and increase psychosocial resources for vulnerable groups [18,20,21].

Influencing factors of mental health of mobile young white-collar workers

Workplace and mental health

Many young individuals who have recently relocated to urban areas or have recently completed their education often engage in temporary internships as a result of their limited professional background. On the one hand, temporary employment can offer several advantages to workers, including the ability to exercise flexibility in their working hours, acquire significant work experience, and serve as a transitional phase towards securing permanent employment [23]. On the contrary, temporary workers frequently encounter restricted opportunities to engage in informal social networks and receive support within their workplace [24], thereby potentially exerting a detrimental influence on their working conditions. There exists a significant correlation between job insecurity and an individual's mental health status [25]. Studies have indicated that individuals employed in non-regular positions, such as temporary workers, exhibit higher levels of psychological morbidity compared to their counterparts in regular employment arrangements [26]. However, it has been found through research that the type of employment differs significantly among non-regular workers. Furthermore, individuals with mental health issues may be more commonly assigned to temporary employment positions compared to those with better mental health. The increased prevalence of mental health problems among non-regular workers could potentially be attributed to limited job prospects rather than the impact of job insecurity [27].

According to the job demand-control-support model (JDCS), jobs with high demands (increased workload or time pressure) and low levels of autonomy (less decision-making power) create "high-stress" situations and can increase the risk of mental illness while reducing job satisfaction. This has led some scholars to suggest that having strong social support in the workplace may help mitigate the adverse effects of high-stress jobs [27]. For example, in a qualitative survey conducted among researchers at a Norwegian Institute, it was found that they considered workplace support to be crucial for performing their jobs effectively [28]. In simple terms, the risk of depression increases in situations characterized by high job demands, low decision-making autonomy, and limited social support [29].

As urbanization has increased, so has inequality around the world [30,31]. A review of recent studies in social epidemiology consistently highlights several key factors: disadvantage, deprivation, isolation, fragmentation, and discrimination [32,33]. A survey suggest that perceiving discrimination from Hong Kong local Chinese has a negative association with the mental health of mainland Chinese immigrants [34]. Another study on job discrimination and its effects on women's physical and mental health found similar results, indicating that perceived discrimination has a significant impact on overall well-being [35].

Therefore, based on the aforementioned research findings, this paper presents the initial set of hypotheses pertaining to the workplace.

Hypothesis 1a: Non-regular workers among mobile young white-collar workers have lower levels of mental health compared to regular workers.

Hypothesis 1b: Jobs that have high control requirements and low freedom negatively impact the mental health of mobile young white-collar workers.

Hypothesis 1c: The perception of workplace discrimination will negatively impact the mental health of mobile young white-collar workers.

Living place and mental health

With the improvement of academic qualifications, young mobile talents are more willing to stay [36]. As a significant portion of the population with advanced academic qualifications and knowledge-based professions, young white-collar workers who are mobile are more likely to choose to stay in urban areas instead of returning to their rural hometowns or small towns. However, if they want to stay in the inflow city for a long time, they must face and solve the housing problem. The high cost of buying a house often forces them to choose renting. While mobility reduces the likelihood that a young person will buy a home, settling down and starting a family also increases their chances of doing so [37].

Many scholars believe that housing is one of the most significant obstacles for migrants to integrate into cities. Compared to local residents, they face disadvantages when it comes to solving housing problems. For renters with lower incomes, financial anxiety was more likely to be associated with psychological distress [38]. However, other studies have found that migrant workers who own property have higher levels of negative emotions than those who rent. Because a range of financial pressures, such as repaying loans, are likely to increase their financial anxiety, which in turn reduces their mental health [20].

Marriage is often believed to alleviate stress, and young migrants frequently experience a heightened sense of belonging to the city and improved mental health following marriage [39]. However, there are also studies indicating that the distinction between individuals who are unmarried and those who are married is not readily apparent. In fact,

some studies suggest that unmarried individuals may experience a greater sense of happiness [40,41]. At the same time, scholars have examined whether the benefits of marriage depend on the likelihood of getting married. They found that individuals who were more likely to be married generally did not experience greater health benefits from marriage compared to their peers [42].

According to the literature review above, this study suggests a strong correlation between marital status, housing status, financial anxiety, and the mental health of mobile young white-collar workers. Therefore, the second set of hypotheses related to the place of residence is proposed:

Hypothesis 2a: There are significant differences in mental health among mobile young white-collar workers based on their housing and marriage statuses.

Hypothesis 2b: The perceived financial anxiety will lead to a decline in the mental health of mobile young white-collar workers.

Hypothesis 2c: Mobile young white-collar workers who own real estate in the inflow place have a higher level of mental health compared to those who rent apartments.

Hypothesis 2d: Married mobile young white-collar workers have a lower level of mental health compared to unmarried mobile young white-collar workers.

Organizational support, neighborhood social relations and mental health
According to Aneshensel's theory, which emphasizes heterogeneity within neighborhoods [18], the concept of "neighborhood" in this study can be understood in relation to both workplace and residence. This is because individuals typically assume different roles and are integrated into different environments in both their workplace and residence settings. Social support was initially recognized as one of the crucial factors that contribute to human psychological well-being and health [43]. Therefore, as a distinct form of social support in the workplace, some scholars argue that the positive acquisition of organizational support has a beneficial effect on employees' work performance, career productivity, and mental well-being [44–47]. Given that employees spend most of their time in the workplace, some scholars believe that organizational support plays a crucial role in alleviating fatigue and life stress, as well as improving job satisfaction [48–50].

Specific neighborhood social relations (neighborhood refers only to neighbors in the vicinity of one's residence) encompass informal interactions with neighbors, such as engaging in conversation, visiting one another, and providing mutual assistance. Kim conducted a study on general social support and specific neighborhood social relations. The findings revealed that individuals with higher levels of general social support and specific neighborhood social relations were less likely to be negatively impacted by neighborhood barriers. Moreover, additional research indicated that general social support had a greater and more significant buffering effect on the life stress experienced by individuals compared to specific neighborhood social relations [51].

Therefore, this study aims to examine the impact of organizational support in the workplace and social relations

in the residential neighborhood on the mental health and life stress of mobile young white-collar workers. It also proposes a set of hypotheses to test these relationships.

Hypothesis 3a: Both organizational support and neighborhood social relations can enhance the mental health of mobile young white-collar workers.

Hypothesis 3b: Both organizational support and neighborhood social relations have a buffer effect on the life stress of mobile young white-collar workers.

Hypothesis 3c: Organizational support exhibits a greater buffering effect than neighborhood social relations.

In summary, this paper proposes three sets of research hypotheses. The first two sets of hypotheses primarily investigate the mechanism and impact of workplace and residence on the mental well-being of mobile young white-collar workers. The third set of hypotheses discusses and compares the buffering effect of organizational support on neighborhood social relations. The purpose of this buffer effect is to mitigate the adverse effects of life stress on mental health.

Data, Variables and Methods

Data
The data used in this study are from a survey of mobile young white-collar workers in Zhejiang Province conducted from July to August 2023, and the respondents' work units are mainly small and medium-sized enterprises that have been operating locally for many years. After the preliminary preparation work was completed, the research team adopted the methods of convenience sampling and snowball sampling to send the questionnaire to the respondents through the online platform, and the specific contents of the questionnaire would be automatically uploaded to the system. A total of 373 questionnaires were collected in this study. After excluding unqualified samples (i.e., non-mobile young white-collar workers), the final valid sample was 333. In terms of gender, 45.9% were male and 54.1% were female. In terms of age, 19.5% were aged 18 to 23, 51.7% were aged 24 to 29, and 28.8% were aged 30 to 35. In terms of education background, 15.9% were college degree, 51.4% were bachelor's degree, and 32.7% were graduate student or above. In terms of marital status, 51.4% were not married, 48.6% were married; In terms of working status, 64.9% of regular workers and 35.1% of non-regular workers; In terms of housing status, rental housing accounted for 61% and owner-occupied housing accounted for 39%. The descriptive statistical results are shown in Table 1.

Variable operationalization

Dependent variables
The dependent variable of this study is the mental health level of mobile young white-collar workers. The study primarily focuses on the sociological factors that influence the mental health of these workers, rather than the diagnosis of medical cases. Therefore, a relatively simple 12-item General Health Questionnaire (GHQ-12) is used to measure the mental health level of the study subjects [11,52]. The scale compares the mental health status of the past 2–3 weeks

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TABLE 1

Results of descriptive statistical results (N = 333)

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Variables	Type	Mean	Std. deviation
Independent variables			
Marital status	Non-marriage = 0; marriage = 1	0.49	0.50
Working status	Regular worker = 0; Non-regular worker = 1	0.35	0.48
Housing status	Rental housing = 0; Home ownership = 1	0.39	0.49
Control and freedom in the workplace	Continuous variable, 2 to 14	6.23	2.98
Degree of discrimination in the workplace	Continuous variable, 2 to 14	5.65	3.19
Financial anxiety	Continuous variable, 5 to 25	11.86	5.44
Life stress	Continuous variable, 14 to 70	37.83	12.90
Organizational support	Continuous variable, 8 to 40	26.92	8.84
Neighborhood social relations	Continuous variable, 3 to 15	9.24	3.51
Control variables			
Sex	Male = 0; Female = 1	0.54	0.50
Age	18 to 23 years old = 0; 24 to 29 years old = 1; 30 to 35 years old = 2	1.09	0.69
Education background	College degree = 0; Bachelor's degree = 1; Graduate student and above = 2	1.17	0.68
Self-rated physical health	Continuous variable, 1 to 5	3.60	0.90
Dependent variables			
Mental health	Continuous variable, 0 to 12	8.13	2.67

with the usual time, using 12 questions and a 4-point subscale, as shown in Table 2. The original designer, Goldberg, suggested using a 1-1-0-0 assignment [53]. This means assigning 1 point to the first two items and 0 points to the last two items, resulting in a variable with a minimum score of 0 points and a maximum score of 12 points. The higher the score, the higher the level of mental health. Cronbach's α coefficient of the scale was 0.845, indicating a good level of internal consistency.

Independent variables

Based on the existing literature and the hypothesis to be verified, this paper divides the independent variables into six categories: workplace, living place, life stress, organizational support, neighborhood social relations, and control variables.

Workplace: Working status is divided into two categories: regular and informal work. The high level of control, limited freedom, and workplace discrimination are all determined by the subjective evaluation of the

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TABLE 2

12-item general health questionnaire

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Question	Option
Have you been able to concentrate on anything you've been doing lately?	Yes, as usual, no, not at all
Have you recently lost sleep because of worry?	No, as usual, yes, always
Do you feel like a useful person?	Useful, as usual, useless, completely useless
Have you recently been able to make a decision when faced with a problem?	yes, as usual, no, not at all
Have you been feeling very nervous lately?	No, as usual, nervous, very nervous
Have you recently felt that you can't overcome the difficulties you are facing?	Can be overcome, as usual, can't be overcome, can't be overcome at all
Do you enjoy what you do every day?	Yes, as usual, no, not at all
Have you been able to deal with the problems you've been having lately?	Yes, as usual, no, not at all
Have you been feeling pain and worry lately?	No, as usual, feel, always feel
Have you recently lost confidence in yourself?	No, as usual, lost confidence, completely lost
Have you felt like a worthless person lately?	No, as usual, feel, always feel
Have you been feeling that things are going well lately?	Very happily well, as usual, not well, not at all well

respondents. Each measurement item is assigned a scale from 1 to 7, with a higher score indicating greater severity. Cronbach's α coefficient of the scale is 0.902.

Living situation: The housing status is divided into rental housing and homeownership, and the marital status is divided into married and unmarried. For the measurement of personal financial anxiety, this study referred to Ryu et al. [38], which utilizes a reverse Likert 5-point scoring system ranging from "disagree" to "agree". The lowest score on this scale is 5, while the highest is 25. The higher the score, the higher the level of financial anxiety. The Cronbach's α coefficient of the scale is 0.949.

Life stress: In this study, the Chinese Perceived Stress Scale (CPSS) revised by Tingzhong Yang and Hanteng Huang was adopted for measurement [54]. There are 14 items, 7 of which are in reverse, and a Likert 5-point scale is used for measurement. The lowest possible score is 14, while the highest possible score is 70. The higher the score, the greater the individual's perceived level of stress. For many years, this scale has been widely used in China and is a common tool for individuals to assess their own stress levels. The Cronbach's α coefficient of the scale is 0.956.

Organizational support is a subset of general social support. In this study, the 8-item Perceived Organizational Support Scale (POS) is used for measurement [55,56]. There are 8 items in this scale, with 3 items scored in reverse. The scale uses a 5-point Likert scoring system, ranging from a minimum score of 8 points to a maximum score of 40 points. The higher the score, the greater the amount of support received by the organization, which has been confirmed to have good reliability in previous studies. We translated this into Chinese and distributed questionnaires. The Cronbach's α coefficient was calculated to be 0.954.

Neighborhood social relations: Kim previously believed that neighborhood social relations generally represent informal integration with neighbors [51]. With reference to the study, we designed three questions to measure the level of neighborhood social relations of respondents, using Likert 5-point score ranging from "few" to "many", with the lowest score being 3 and the highest 15. The higher the score, the higher the level of neighborhood social relations. In the current study, Cronbach's α coefficient is 0.935.

Control variables: This study controlled for variables that may affect the dependent variables, such as age, gender, educational background, and self-rated physical health.

Model and analysis strategy
This study primarily utilizes RStudio, an integrated development environment based on R, to perform a range of data analysis and graph generation tasks, such as independent sample *t*-tests and multiple linear regression.

In addition, to minimize common methodology bias, negative-worded items were included in the questionnaire [57]. According to the Harman single factor method test, only 44.80% of the variance is attributed to a single factor. This value is lower than the recommended threshold, suggesting that common method bias is not the primary issue.

Results

Before conducting multiple linear regression, this paper initially divided the two groups into two independent sample *t*-tests based on marital status (non-marriage and marriage). The study revealed significant differences in the mental health of mobile young white-collar workers across different marital states ($t = 2.4333$, $p = 0.01549$). Similarly, the independent sample *t*-test was conducted by dividing the two groups into rented housing and self-owned housing. The results showed significant differences in the mental health of mobile young white-collar workers under different housing conditions ($t = 2.1432$, $p = 0.03304$). Therefore, Hypothesis 2a of the second group is confirmed, as shown in Table 3.

Then, four multiple linear regression models were established to test the remaining research hypotheses, and the results are shown in Table 4. In Model 1, only control variables and dependent variables are included as the baseline regression. In Model 2, three workplace variables were added. The results showed that there is a negative correlation between the level of control and freedom in the workplace and the mental health of mobile young white-collar workers ($\hat{\beta} = -0.29$, $p < 0.001$), confirming Hypothesis 1b. Additionally, there is a negative correlation between the degree of discrimination in the workplace and the level of mental health of mobile young white-collar workers ($\hat{\beta} = -0.35$, $p < 0.001$), confirming Hypothesis 1c. However, the effect of working status on mental health is not significant, and Hypothesis 1a is not confirmed. On the basis of Model 1, Model 3 added three variables related to place of residence. The higher the perceived level of financial anxiety, the lower the mental health level of mobile young white-collar workers ($\hat{\beta} = -0.29$, $p < 0.001$). Additionally, being married is also associated with a decrease in mental health ($\hat{\beta} = -0.41$, $p < 0.05$). Therefore, Hypotheses 2b and Hypotheses 2d are confirmed. However, the effect of housing status on mental health is not significant; therefore, Hypotheses 2c is not confirmed. In Model 4, which is based on Model 1, the analysis focused on the impact of life stress, organizational support, and neighborhood social relations on mental health. According to the regression results, it was found that organizational support ($\hat{\beta} = 0.09$, $p < 0.001$) and neighborhood social relations ($\hat{\beta} = 0.17$, $p < 0.001$) had a positive effect on mental health, while life stress was negative ($\hat{\beta} = -0.07$, $p < 0.001$). Therefore, Hypothesis 3a is confirmed.

TABLE 3

Independent sample *t*-test results (N = 333)

Variables	t	*p*-value
Marital status	2.4333	0.01549
Housing status	2.1432	0.03304

TABLE 4

The result of multiple linear regression model (N = 333)

Variables	Model 1	Model 2	Model 3	Model 4
Independent variables				
Marital status (RG: non-marriage)			−0.41* (0.19)	
Working status (RG: regular worker)		0.15 (0.17)		
Housing status (RG: rental housing)			0.03 (0.20)	
Control and freedom in the workplace		−0.29*** (0.04)		
Degree of discrimination in the workplace		−0.35*** (0.04)		
Financial anxiety			−0.29*** (0.02)	
Life stress				−0.07*** (0.01)
Organizational support				0.09*** (0.01)
Neighborhood social relations				0.17*** (0.03)
Control variables				
Sex (RG: male)	0.10 (0.22)	0.22 (0.15)	−0.09 (0.17)	−0.005 (0.13)
Age (RG: 18 to 23 years old)	−0.89*** (0.18)	−0.29* (0.13)	−0.15 (0.16)	−0.30** (0.10)
Education background (RG: college degree)	0.87*** (0.18)	0.55*** (0.13)	0.62*** (0.14)	0.34** (0.11)
Self-rated physical health	1.77*** (0.12)	0.52*** (0.11)	0.88*** (0.11)	0.35*** (0.09)
Intercept	1.67*** (0.50)	9.58*** (0.57)	8.03*** (0.58)	5.72*** (0.84)
Adjusted R^2	0.44	0.74	0.67	0.82

Note: Standard error in parentheses; ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, +$p < 0.1$; RG = reference group.

TABLE 5

The result of the regulatory effect (N = 333)

Variables	Model 5	Model 6
Independent variables		
Life stress	−0.07*** (0.01)	−0.08*** (0.01)
Organizational support	0.09*** (0.01)	0.08*** (0.01)
Neighborhood social relations	0.16*** (0.03)	0.17*** (0.03)
Interaction term		
Life stress × Organizational support	0.001* (0.001)	
Life stress × Neighborhood social relations		0.003+ (0.002)
Control variables		
Sex (RG: male)	0.003 (0.13)	0.002 (0.13)
Age (RG: 18 to 23 years old)	−0.28** (0.10)	−0.31** (0.10)
Education background (RG: college degree)	0.35** (0.11)	0.36*** (0.11)
Self-rated physical health	0.3** (0.09)	0.31** (0.09)
Intercept	8.15*** (0.15)	8.16*** (0.16)
Adjusted R^2	0.82	0.82

Note: Standard error in parentheses; ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, +$p < 0.1$; RG = reference group. The standardized coefficient of "Life stress × Organizational support" is 0.0005; The standardized coefficient of "Life stress × Neighborhood social relations" is 0.0012.

Finally, in order to further explore whether organizational support and neighborhood social relations can play a buffering role in mitigating the negative impact of life stress on mental health, this study examined the interaction between life stress and both organizational support and neighborhood social relations. Two interaction terms were created, and the regression results are presented in Model 5 and Model 6 in Table 5. The findings indicate that organizational support ($\hat{\beta} = 0.001$, $p < 0.05$) and neighborhood social relations ($\hat{\beta} = 0.003$, $p < 0.1$) can indeed buffer the negative impact of life stress on the mental health of mobile young white-collar workers. Therefore, hypothesis 3b is confirmed. However, when comparing the standardization coefficients of the two interaction terms, it is observed that the buffering effect of organizational support ($\hat{\beta} = 0.0005$) is smaller than that of neighborhood social relations ($\hat{\beta} = 0.0012$). As a result, Hypothesis 3c is not confirmed.

To directly observe the buffering effect, we examined the impact of life stress on mental health levels when organizational support increased or decreased by 10% (mean ± 4 units), as depicted in Fig. 2. Additionally, the study investigated the effect of changes in neighborhood social relations, with a 10% increase or decrease (mean ± 1.5 units), as illustrated in Fig. 3. The three lines in each of the two effect graphs are not parallel, indicating that a decline in organizational support or neighborhood social relations will reduce their buffer effect on stress. In other words, mobile young white-collar workers who have lower levels of organizational or neighborhood social relations are more
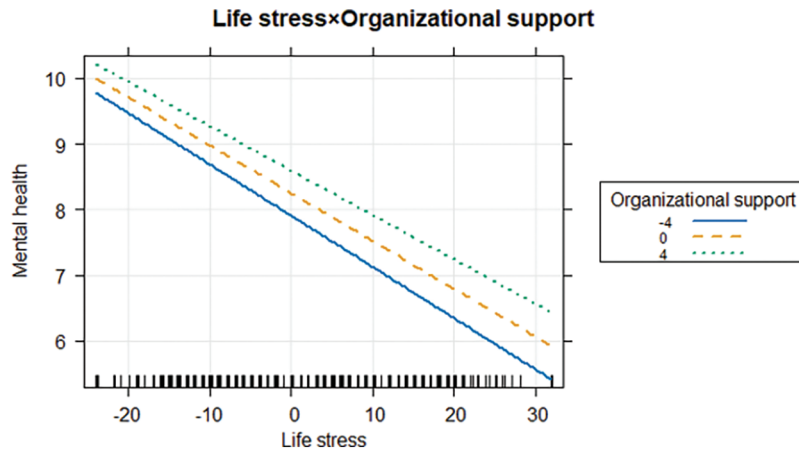
FIGURE 2. Interaction effect of life stress and organizational support.
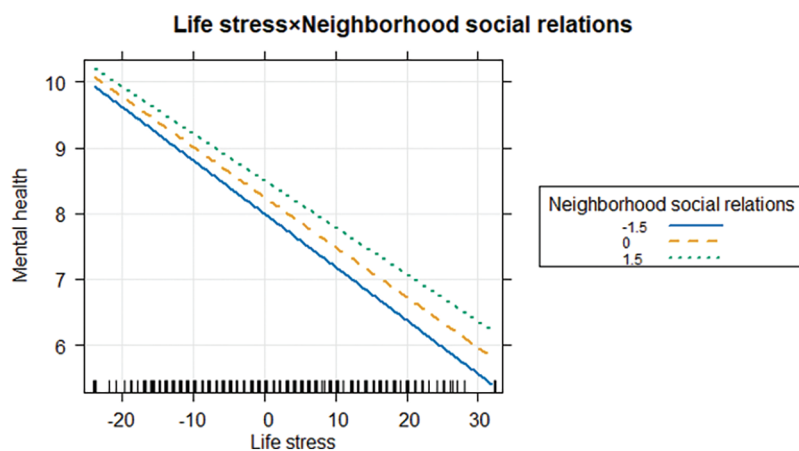

FIGURE 3. Interaction effect of Life stress and neighborhood social relations.

susceptible to the negative impacts of life stress on their mental health.

Furthermore, this study also validates the reliability of the aforementioned conclusions by conducting robustness tests. These tests involve reassigning dependent variables, transforming them into binary categorical variables, and utilizing a binary logistic regression model instead of the original multiple linear regression model for analysis. The final results are essentially consistent with those reported earlier.

Discussion

Based on an ecological model of the stress process, this article examines the work and living environments of mobile young white-collar workers. It analyzes the impact of various factors on the mental health of this group and discusses the role of organizational support and neighborhood social relations in alleviating life stress.

First, the term "mobile young white-collar workers" encompasses three characteristics of this group: being part of the mobile population, being young, and being urban white-collar workers. Each of these labels can contribute to a relative disadvantage. In the face of stress, these characteristics can be considered as "stressors", and the resulting mental health issues can be seen as "outcomes".

Fortunately, the impact of these stressors on mental health can be mitigated by "moderating resources" such as social support, which can help alleviate the pressure. However, the size and availability of " moderating resources" vary among individuals, and those in a relatively disadvantaged position often have limited access to such resources. This disparity may highlight the issue of social inequality. In previous studies, researchers classified samples with a score of less than 9 points on the GHQ-12 scale into a category with poor mental health [11,52]. From the results of descriptive statistics, the average score of GHQ-12 scale is less than 9 points, which also means that many interviewees seem to have some degree of psychological distress, and they do not think that their recent life is smooth. Although the evaluation of mental health is closely related to the subjective perception of individuals, even in the face of the same situation, people's feelings will be different, but it is enough to reflect some of the problems mentioned in the previous article about the psychological plight of mobile young white-collar workers. In addition, it is difficult for us to avoid unpleasant situations in daily life, which is why the mental health of individuals at the micro-level is always affected by the field at the meso-level. Therefore, it is even more important that we focus on finding some feasible solutions to minimize the negative impact of various stressors on our mental health.

Second, this study examined the influence of various potential factors in the workplace on the mental health of mobile young white-collar workers. White-collar workers are usually highly educated and engaged in knowledge-based work, and they tend to prefer a more relaxed and flexible working environment and arrangements [23,58]. However, high levels of control and strict rules and regulations by superiors can increase their work stress, which can negatively affect their mental health, a result consistent with previous research. Moreover, workplace discrimination is an issue that cannot be ignored [59]. Based on the special status of mobile young white-collar workers, this study investigated the discrimination related to the status of mobile young white-collar workers and found that such discrimination may have adverse effects on the mental health of mobile young white-collar workers. Moreover, it is worth noting that their scores on the sense of discrimination and the sense of control are relatively close, indicating that there may be some connection between the two, which can be further studied in the future. Finally, regarding the influence of working status on the mental health of mobile young white-collar workers, scholars have different views on whether regular workers have higher mental health level. At the same time, the regression results above did not have statistical significance, so this study believes that the mechanism of working status on mental health may be related to factors such as individual career planning and organizational career arrangement, and the heterogeneity of these individuals or organizations is an aspect that cannot be ignored.

Third, the urban integration of mobile population has always been the focus of scholars. In the traditional concept of China, having a family and a career is the expression of young people's foothold in the new environment, so housing and marriage are two important topics that cannot be avoided, and they are also common factors in the study of urban integration of mobile population [60,61]. Owning a local home is often seen as an important foundation for an individual to integrate into a new city [20]. According to the above data analysis, owning a house in the destination has no significant impact on the mental health of mobile young white-collar workers. However, financial anxiety has a significant negative impact on mental health. At the same time, compared with the unmarried mobile young white-collar workers, the married mobile young white-collar workers are relatively poor in mental health. Financial anxiety is an internal feeling of people, and it is related to material factors such as housing status and marriage status. Although in this study, housing status does not directly affect the mental health of mobile young white-collar workers, it may have an indirect impact through financial anxiety. Therefore, the interrelationships between the three factors of living place discussed in this study tend to be relatively close, and understanding their impact on mental health is a topic worthy of further consideration.

Fourth, social support is often considered an important factor in preventing or improving mental health problems [50]. Organizational support and neighborhood social relations are specific forms of social support that are related to the workplace and residential areas, respectively.

Regression results show that both organizational support and neighborhood social relations can alleviate the negative effects of life stress on mental health. This finding is consistent with previous studies. In addition, this study also tried to compare the effects of organizational support and neighborhood social relations on stress relief, and finally found that neighborhood social relations have a greater effect on stress relief. This result may be related to the mobility of mobile young white-collar workers. Compared with local white-collar workers, they leave their hometown to live and work in a new city, feel unfamiliar with the surrounding environment, and have a sense of vacancy and loneliness in their heart, and good neighborhood social relations may fill this gap, unexpectedly playing a greater role than organizational support. Their neighborhood social relations mainly come from two aspects: First, the mobile population close to their residence, although their hometown may be different, but they meet in the same city, there is a common topic or encounter, and in the process of mutual help and communication, gradually establish a new interpersonal relationship, so that their hearts get a kind of support. The second is the local population close to their homes. Friendly and enthusiastic locals can make the mobile population have a sense of belonging to the new city, make them gradually integrate into the city spiritually, improve their psychological condition, and consider settling down. It can be seen that we should pay attention to the role of neighborhood social relations in improving the mental health of mobile young white-collar workers.

Limitations

There are several limitations to this study. First, this paper selects a horizontal data, the survey time is only one months, and the region is limited to some small and medium-sized enterprises in Zhejiang Province, which lacks in sample representativeness and sample size. Secondly, some factors that may have an important impact on the above hypothesis are ignored, such as the marriage partner's household registration, family status of origin, job title in the work unit, etc., these factors are not controlled in the study; Finally, because some items set in the questionnaire are only suitable for the investigation of mobile young white-collar workers, such as workplace discrimination related to mobile status, it is necessary to exclude non-mobile young white-collar workers. However, this also leads to a lack of comparative analysis between the two groups, and the robustness of the conclusions obtained is not high enough and needs to be further improved in the future.

Conclusion

This study selects a special group—mobile young white-collar workers. Based on the idea of an ecological model of the stress process, this study analyzes the influence of various factors on the mental health of micro individuals from the perspective of workplace and residence, using the data of a questionnaire from Zhejiang, China. The empirical results show that:

1. A working environment with high control and low freedom will have a negative impact on the mental health of mobile young white-collar workers.

2. In the work environment, discrimination related to mobility status, such as regional discrimination or household registration discrimination by superiors and colleagues, will also have a negative impact on the mental health of mobile young white-collar workers.

3. In daily life, the financial anxiety of mobile young white-collar workers is inversely proportional to their mental health level.

4. Good organizational support and neighborhood social relations can significantly relieve the life pressure of mobile young white-collar workers, thus effectively improving their mental health, and the pressure relief effect of neighborhood social relations is greater.

In addition, this study also found that the mental health of mobile young white-collar workers is suffering from "double disadvantage", and this damage is related to their dual identities (mobile youth, general white-collar workers), which further expands the original research. Therefore, in the future social governance, we can consider their two identities and formulate corresponding measures to improve their situation.

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Availability of Data and Materials: Data can be obtained by contacting the authors.

Ethics Approval: All the methods were performed in accordance with the Declaration of Helsinki. The study was approved by the Ethical Committee of Hangzhou Dianzi University. All the participants provided informed consent.

Conflicts of Interest: The authors declare that they have no conflicts of interest to report regarding the present study.

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