



Risk Factors Related to Work on Mental Health of Migrant Workers in China: A Systematic Review

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Abstract. There are 295.62 million migrant workers moving to urban cities from the countryside in China in 2022. Migrant workers are at heightened risk of suffering from mental issues, and work-related factors are the significant stressors. This systematic literature review focuses on exploring the relevant occupational risk factors that impact the mental health of migrant workers relocating from rural areas to urban cities in China. According to PRISMA guidelines, articles were retrieved and screened from the databases including SCOPUS, Web of Science core collection, PsycArticles, COCHRANE library, MEDLINE Complete, PsycINFO, PubMed, CINAHL Complete, CNKI, WANFANG. Finally, all 8 of these peer-reviewed journals included in the review were English or Chinese and published between 2009 and 2023. It was found that the major risk factors in the workplace included job stresses, higher effort and lower reward, long work hours, and hazardous work environment. Meanwhile, Job stresses comprised intense workload, role conflicts with leaders and co-workers, role ambiguity, and lack of utilization of skills. Overall, migrant workers are a high-risk group for suffering from bad mood states and mental issues such as depression, anxiety, emotional exhaustion, depersonalization, etc. Relevant government departments and enterprises take effective measures to reduce these risk factors in the workplace so that migrant workers can have better mental states.

Keywords: Migrant workers, Mental health, Work-related risk factors, China.

1 Introduction

The purpose of this study is what relevant risk factors in the workplace affect poor mental health of migrant workers holding household registrations in the countryside and working in urban cities for six months or more during the year in China. Due to limited job opportunities in the countryside, more and more migrant workers have left their hometowns to seek more and better job opportunities in more economically developed cities, especially in eastern coastal cities, since the 1980s. The total number of migrant workers moving to urban cities from the countryside reached 295.62 million in 2022 in China. 69.3% of migrant workers who held household registrations in the countryside and worked in the urban cities were educated to junior high school level or below. The average earnings of rural-to-urban migrant workers was RMB 4,615 per

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month in 2022. Most migrant workers who held household registrations and worked in the cities were engaged in low-skilled jobs in the second and third industries. Looking at the six main employment industries for migrant workers, the proportion engaged in manufacturing is 27.4%; construction, 17.7%; wholesale and retail, 12.5%; transportation, warehousing, and postal services, 6.8%; accommodation and catering, 6.1%; and residential services, repair, and other services, 11.9% [1].

Current research on the mental well-being of non-migrant and migrant workers indicates that non-migrant workers demonstrated a minor edge in job satisfaction over migrants. Migrant workers are also at a heightened risk of developing mental illnesses because of Excessive work pressure, higher efforts, lower rewards, and lack of job control [2]. Migrant workers from the rural areas generally have a low socio-economic status, placing them in a disadvantaged position in society and the workforce. Moreover, Migrant workers with a low level of literacy and education feel more difficult to find decent jobs with good pay. Because of a low level of understanding of labour laws and regulations and lack of social supports, migrant workers feel struggled to protect their legal rights and interests in China, so that this situation has resulted in migrant workers not receiving legitimate income commensurate with their contributions. The long working hours and shift system result in migrant workers having insufficient sleep, leading to more physical health problems and poorer mental health status. These are the reasons why migrant workers are a high-risk group that is more vulnerable to experiencing mental health issues.

Based on extant empirical research, risk factors in the workplace have been identified as the primary stressors contributing to mental issues of migrant workers. However, from 2019 to 2023, a research gap still exists in the systematic literature review about what are these significant risk factors in jobs on migrant workers' mental health. As a result, the systematic literature review in this study seeks to investigate the primary risk factors that influence the mental well-being of migrant workers in the workplace.

2 Methods

2.1 Search Strategy

The process of searching and screening articles was implemented from January 6, 2024, to January 13, 2024, following the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines [3]. What is more, the study exclusively included peer-reviewed and empirical articles published between 2009 and 2023 which were available on the primary online databases including CNKI, SCOPUS, PsycINFO, WANFANG, Web of science core collection, PsycArticles, MEDLINE Complete, PubMed, CINAHL Complete, and COCHRANE library. The search strategy was to retrieve and collect those articles whose titles, abstracts, and keywords contain these combinations of keywords with (“migrant workers” OR “ Chinese migrant workers”) AND (“psychological health” OR “psychological well-being” OR “mental well-being” OR “psychological disorders” OR “mental disorders” OR “psychological illness” or “ mental illness” OR “mental health” OR “psychological health ””) AND (“work factors” OR “work stress” OR “work-related factors” OR “psychological problems” OR “work

stressors” OR “job factors” OR “job stress” OR “job stressors” OR “employment factors” OR “occupational factors” OR “risk factors” OR “factors related to work”) AND (“ China”). And then, the researcher screened the empirical articles with publication dates from 1 January 2009 to 31 December 2023 in both English and Chinese. According to the eligibility criteria, the researcher screened these English and Chinese articles. Finally, the researcher thoroughly reviewed the ultimately screened articles.

2.2 Eligibility Criteria

The inclusive and exclusive criteria are illustrated by Table 1. The literature retrieving and screening processes are demonstrated by Figure 1.

Table 1. The inclusive and exclusive criteria.

Inclusive Criteria	Exclusive Criteria
Published between January 1, 2009, and December 31, 2023	Published prior to January 1, 2009
Peer reviewed articles	Non-peer-reviewed articles
Empirical research journals	Reviews, Dissertations, Conference, Abstracts, and Organizational reports
Published in Chinese and English	Published in a language other than Chinese or English
Quantitative Studies	Qualitative and Mixed-methods studies

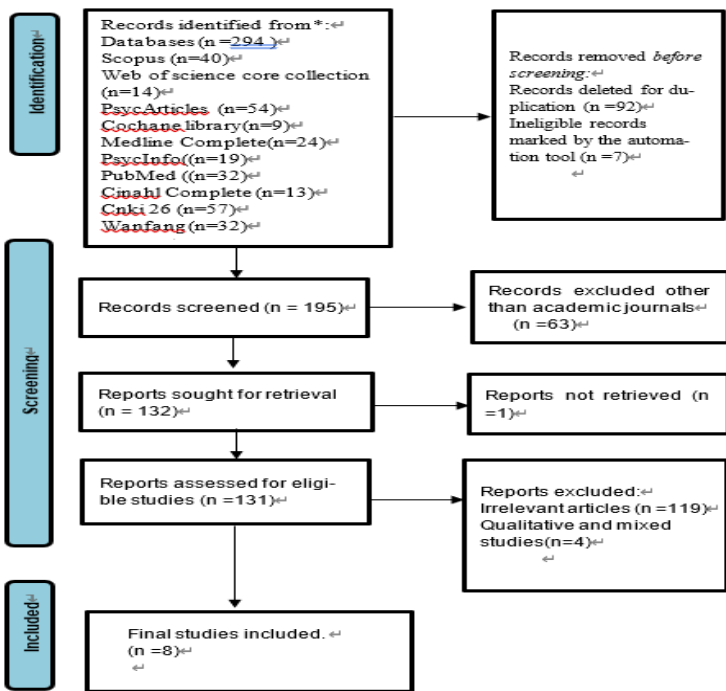


Fig. 1. The literature screening process.

2.3 Quality Assessment

The systematic review study utilized the Appraisal tool for Cross-Sectional Studies. This tool [4] comprises 20 questions, including seven on reporting quality, seven on study design quality, and six on potential study biases. All eight of the final articles meet the quality and risk biases assessment standards.

3 Results

3.1 Job Stress

Three academic studies included in review used the 13-item Job Stress Scale designed by Caplan et al., in 1975, which included intense workload, role conflicts with leaders and co-workers, role ambiguity, and lack of utilization of skills in job. It revealed that job stressors above can contribute to bad mood states such as anxiety, depression and suicidal ideation.

The first study showed that job stress was linked to a heightened level of mental health problems. The questionnaires were completed by 2023 Chinese migrant industrial workers. The research indicated that the immediate impacts of work-related stress on depression and anxiety were substantial, with ($B = 0.035$, $p < .001$) and ($B = 0.038$, $p < .001$), respectively [5].

The second study also showed the migrant female manufacturing workers with intensive job stress were more likely to have worse mood state, because the association between work-related stress and mood states was statistically significant ($\beta=0.103$, $p=0.035$) [6].

The third study showed that Mo et al recruited 785 participants among migrant factory workers to complete the questionnaire. Firstly, it was showed that workload can contribute to a heightened level of anxiety, depression, and suicidal ideation. Secondly, role conflict can also contribute to a heightened level of mental disorders and issues. Moreover, job ambiguity was linked to a heightened level of mental disorders such as anxiety and depression, but not applicable for suicidal ideation. However, utilization of skills in job can contribute to a lower level of anxiety and depression, not applicable for suicidal ideation [2].

3.2 Effort–reward Imbalance

Higher effort and lower reward and high overcommitment in the workplace are significant stressors of the mental issues of migrant workers.

One study assessed the effect of higher effort and lower reward on emotional exhaustion and depersonalization among female migrant workers in the Chinese manufacturing industry by Effort–reward imbalance scale designed by Siegrist et al. in 2004. The research results showed that female migrant workers who had higher effort and lower reward more likely to suffer from emotional exhaustion and depersonalization than their counterparts facing lower effort-reward imbalance. Meanwhile, female migrant workers who had attained high overcommitment were more likely to suffering

from mental disorders such as emotional exhaustion and depersonalization. But over-commitment was associated with personal efficacy among female migrant workers [2].

According to another research article, Mo et al. assessed the effect of the effort-reward imbalance on mental issues of migrant factory workers in their job. The results showed that the effect of higher effort and lower reward was related to heightened level of mental issues such as anxiety, depression, and suicidal ideation [7].

3.3 Long Work Hours

Working for a long time is a significant stressor. Because working for a long time makes migrant workers feel exhausted and have less time to sleep, which makes them have physical health issues and leads to mental health issues.

One study showed that migrant workers who worked fewer than or equal to 40 hours (OR=1.09 95% CI=0.83-1.41) per week were less likely to suffering from psychological disorders than their counterparts working for between 51 and 60 hours, between (OR=1.2 95% CI=0.92-1.57), 61-70 (OR=1.37 95% CI=1.03-1.81), 71-80 hours (OR=1.90 95% CI=1.38-2.61), but working equal or more than 80 hours (OR=1.45 95% CI=1.08-1.95) per week is not applicable [8].

The survey of 245 valid questionnaires showed that 66.93% of migrant workers worked 8-12 hours a day, while 22.45% of migrant workers worked more than 12 hours a day. Prolonged and intense physical labour led to excessive fatigue among migrant workers, inadequate sleep, and negative impacts on their mental health. The findings from the data analysis indicated that the daily work hours had a notable influence on the psychological well-being of migrant workers, as indicated by the Beta value of 0.241 ($p < 0.05$) in the multiple stepwise regression analysis [9].

The study record showed that the researchers invited 3,140 migrant workers to complete the questionnaires. And it was found that 193 migrant workers among 673 people who worked for 8 hours or less per day had mental health issues with the prevalence rate 28.7%. While 850 migrant workers among 2358 people who worked for more than 8 hours had mental health issues with the prevalence rate 36%. According to the multivariable logistic regression results, the findings indicated that working for more than 8 hours per day was correlated with a heightened risk of mental health issues (OR=1.39, 95% CI=1.14-1.70), with their counterparts working 8 hours or less as the reference point. [10].

3.4 Hazardous Work Conditions

Hazardous work conditions put migrant workers at a higher risk of physical issues. Meanwhile, it increases the likelihood of poor psychological well-being and experiencing emotional exhaustion and depersonalization among migrant workers.

One study found that 325 female migrant manufacturing workers who did not expose to hazardous work conditions had a lower risk of mental health such as emotional exhaustion and depersonalization, compared to their counterparts 729 female migrant manufacturing workers who exposed to occupational hazards among 1081 participants [2].

A study revealed that working in hazardous environments (OR = 1.26, 95% CI: 1.10-1.44) is linked to an increased likelihood of poor psychological well-being among migrant workers in Guangdong province [11].

4 Discussion

4.1 Implications

This systematic literature review collected and summarized empirical articles in Chinese and English from 2009 to 2023 on the impact of risk factors related to work including job stresses, higher effort and lower reward, long work hours, and hazardous work environment, which made Chinese migrant more susceptible experiencing mental disorders and issues. Firstly, work stress including intense workload, role conflicts with leaders and co-workers, role ambiguity, and lack of utilization of skills in job can contribute to mental disorders and issues. Secondly, migrant workers who exerted high effort but receive low rewards and got high overcommitment from companies were more prone to experiencing mental disorders and issues such as emotional exhaustion, depersonalisation, anxiety, depression, and suicidal ideation. Thirdly, migrant workers with long working hours are more susceptible to experiencing mental health issues due to reduced sleep and leisure time, which negatively impacts their physical and mental well-being. Finally, the detrimental working environment increases the risk of physical illnesses for rural migrant workers and leads to rural migrants experiencing poor psychological well-being, emotional exhaustion, and depersonalization. Additionally, migrant workers with self-perception higher effort and lower reward are at heightened risk of mental illness. Meanwhile, long working hours and hazardous work environments are also important risk factors contributing to psychological illness of migrant workers in China. Chinese migrant workers have lower socioeconomic status and legal awareness, which makes them have disadvantages in the work environment. Relevant enterprise management departments should improve management and resolve role conflicts and role ambiguity between employees and leaders, as well as among employees. Labour administrations need to formulate and implement more effective and sound laws and effective regulations to regulate the illegal behaviour of enterprises and advocate the lawful rights and interests of migrant workers. Workers' organisations and enterprises need to provide more vocational and skills training to migrant workers so that their skills can be fully utilised in the workplace. non-profit legal aid organisations can help migrant workers protect their legal rights, have safe working conditions, as well as receive rewards proportionate to their efforts.

4.2 Limitations and Future Research

A researcher retrieved and screened all of studies, so it could be more subjective, compared with other systematic reviews retrieved and screened by two or more researchers. Because this is a single-authored study, the assessment of the article's quality and risk was also conducted by a researcher, which may lead to a more subjective quality assessment compared to having two or more assessors. All studies are quantitative studies

without qualitative and mixed studies, which cannot delve into the in-depth thoughts of the migrant workers. All studies are based on the cross-sectional design, which cannot confirm the causal relationship between risk factors related to work and poor mental health.

Therefore, future research better be completed more than one researcher, so that the study becomes more objective as much as possible. The final studies included should be quantitative, qualitative, and mixed-method studies in the future, so that the universality, situationally, and credibility of systematic literature review can be improved better. The future systematic reviews can incorporate a combination of cross-sectional and longitudinal studies to comprehensively establish causal relationships between risk factors in the workplace and mental well-being better.

5 Conclusion

Overall, based on the previous studies, this systematic review demonstrated the main risk factors related to work on mental health among Chinese migrant workers. These four main work-related risk factors are job stressors including intense workload, role conflicts with leaders and co-workers, role ambiguity, and lack of utilization of skills, effort-reward imbalance, long work hours, and hazardous work environment. And job stresses comprised intense workload, role conflicts with leaders and co-workers, role ambiguity, and lack of utilization of skills. Overall, those risk factors related to work above made migrant workers more susceptible to experiencing bad mood states and mental issues such as anxiety, depression, suicidal ideation, emotional exhaustion, and depersonalization in the workplace. Relevant government departments, business leaders, and non-profit organizations must take action to mitigate occupational risk factors that affect the mental well-being of migrant workers in the workplace.

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