



Effect of Precarious Work on Workplace Wellbeing and Musculoskeletal Disorders: A Systematic Review

Ahmad Shahrul Nizam Isha¹, Paras Behrani², Umair Sarwar³, Majid Hussain Serai⁴

^{1,2,4} Department of Management and Humanities, Universiti Teknologi Petronas

³ Department of Industrial Engineering & Management, Dawood University of Engineering and Technology

INFO ARTIKEL

Abstract

Keywords:

Precarious work, Wellbeing, musculoskeletal disorders

A very rare literature addresses the multidimensional nature of precarious work, the current review analyzes the multidimensional definition of precarious work and its effect on wellbeing. This systematic review focuses on precarious work as a determinant of wellbeing specifically workplace wellbeing and musculoskeletal disorders. The current study applies the systematic review framework, studies which were published between January 2012 and September 2023 were selected. The findings indicated that Precarious workers are more likely to experience physical and mental health problems, including poor general health, and musculoskeletal disorders.

✉ Corresponding Author

(*) Author

Email:

shahrul.nizam@utp.edu.my¹, paras_22001653@utp.edu.my^{2*},
umair_22001647@utp.edu.my³, majidserai@gmail.com⁴

E-ISSN: 3026-0965

DOI :

Introduction

There are several definitions of precarious employment (Vosko, 2011) which remains ambiguous throughout literature. Precarious employment refers to various work arrangements that provide insufficient social benefits and legal entitlements, job instability, low wages, and heightened risks of ill-health. It is determined by the nature of the employment status (i.e., full-time, part-time, temporary or permanent), aspects of insecurity of labor market, as well as the social context (e.g., industry, occupation, and geography) and social location (the interplay between social relationships such as race and gender, and political and economic factors). The term precarious employment encompasses various forms of employment that differ from the “standard” historically, model of full-time, permanent work, and are also known as atypical, contingent, or nonstandard employment arrangements (Campbell & Burgess, 2018; Kalleberg, 2009; Macassa et al., 2017). The significant increase in precarious employment in recent decades has prompted concerns regarding its impact on health of workers, given its features of uncertainty, instability, benefits absence and safeguards, as well as social and economic vulnerability (Benach et al., 2016; Quinlan, 2012).

The Public Health and Sociologic literature have developed a construct called "precarious work" to identify and assess the impact of standard work arrangement changes on the health of worker. Precarious work spans a continuum of employment conditions, varying from full-time, secure, year-round, well paid, and socially secure employment to high level of precariousness related to job insecurity, fixed-term contracts, economic insufficiency, and lack of social protections. Material and social deprivation, along with exposure to more hazardous work environments, adversely affect the health of precarious workers. Furthermore, these effects often extend to their family and household members, resulting in negative cascading effects that can impact various aspects of their lives, such as work, quality of housing, nutrition, quality of education for children in their household, and the utility of their social interactions (Benach et al., 2014; Willette, 2018).

Until now, the inconsistent and overly broad definitions of precarity, such as its association with temporariness, have resulted in varied interpretations of the concept, creating a significant challenge for determination of outcomes. Previous research characterized precarity as work that is uncertain, unpredictable, and perceived as risky by employees. Nevertheless, common themes that encompass precarious employment are now emerging. For instance, precarious employment can be described as a multifaceted concept that includes dimensions like job insecurity, low wages, and a lack of employment rights and protections.

The authors Benach and Kreshpaj have conducted the recent development of the definition of precarious work, which is consistent with this multidimensional perspective (Benach et al., 2014; Kreshpaj et al., 2020). By measuring these multifaceted dimensions of precarity, a more comprehensive assessment of the extent of precariousness can be obtained. Besides that, also with the source of competitive advantage which is innovation and creativity (Safrizal, H. B. A. 2023). Furthermore, in line with this approach, the multidimensional scales of precariousness show a more robust correlation with health outcomes, such as musculoskeletal disorders, when examined.

Recent studies of the implications of precarious work have primarily concentrated on specific results like physical hazards and psychosocial health. However, an increasing number of studies have delved into other ramifications of precarious work, encompassing effects on the workplace and social wellbeing, and general health (Willette, 2018). Additionally, these reviews have traditionally centered around studies that focused on a particular dimension of precarious work, like its temporary work contract. Consequently, reviewing the results from these studies has proven challenging due to variations in the interpretation of precarious work. In light of these knowledge gaps, it is imperative to amalgamate the existing data on precarious work by embracing the precarious work's multidimensional definition and encompassing a wider array of social and health outcomes.

In order to bridge these knowledge gaps, a systematic review is conducted in this study aimed at investigating the workplace well-being, health consequences like musculoskeletal disorders as the repercussions of precarious work. Hence, this systematic review endeavours to achieve the following objectives: (1) summarising and zooming in the health consequences of precarious work like workplace wellbeing and musculoskeletal disorders (2) create a literary pathway for future direction into employment of precarious by focusing on precarious work's multidimensional nature.

Methodology

The current study applies the systematic review framework, the authors have performed a thorough search across four databases (PubMed, Web of Science, ProQuest Social Science, and Google Scholar) for selection of relevant

studies to include. However, to ensure the focused review the study follows following inclusion criteria:

(1) the articles were published in the English language and provide complete accessibility to their full texts; (2) they involved participants who were chosen based on atleast two precarious employment's dimensions, as defined by the International Labour Organization; (organisation, 2016) ; (3) Studies which reported one or more potential outcomes related to workplace wellbeing ;(4)And studies which were published between January 2012 and September 2023.

Results

Characteristics of Precarious Work

This section provides an overview of the key features precarious work as examined in the studies included in this research. Also employee performance is a stage of achievement as an employee's work achievement (Safrizal, H. B. A., Eliyana, A., & Febriyanti, K. L. 2020). Among these studies, four of the articles employed in this analysis utilized a cross-sectional research design, (McKay et al., 2012; Nor, 2022; Nungsari et al., 2020; Pye et al., 2012). All major aspects of precarious work, namely insecurity of employment, low wages, and a lack of rights,vulnerability and uncertain working times, were included in the reviewed studies. Notably, the unstandardized employment type was a focal point in four of the five review studies. Many studies conducted in Europe assessed the precariousness work through the the employment precariousness scale (EPRES) (Vives et al., 2010; Willette, 2018). In Malaysia, two studies explained the precarious employment based on four out of six indicators of job precariousness from EPRES (Abdul Jalil et al., 2023; Hussein, (2018).) It's worth noting that all studies made adjustments for potential confounding factors, like age,gender and education status.

Workplace Wellbeing

Studies revealed that precarious workers experienced poorer well-being across a wide spectrum of results when compared to their non-precarious counterparts (Kalleberg & Hewison, 2013).The selected studies for current review to assess the effect of precarious work on workplace wellbeing and musculoskeletal disorders are presented in table2. These outcomes encompassed diminished life satisfaction, reduced job satisfaction, and inferior workplace well-being concerning basic survival needs, social contributions, and self-determination needs. Furthermore, four among these studies indicated that well-being reported markedly worse results among highly precarious workers when compared to their non-precarious counterparts(Katz & Krueger, 2019; Kim et al., 2020; Uchiyama et al., 2022; Willette, 2018). It is worth noting that individuals who were unsatisfied with their precarious employment were shown to be five times more prone to experiencing job-related stress in comparison to those who expressed contentment with their work circumstances. Along with increasingly sharp competition due to rapid technological changes and drastic environmental changes in every aspect of human life, every organization needs human resources who have the competence to be able to provide excellent and valuable services (Faidal, F., & Anshori, M. I. 2011). Interestingly, just one study took a theoretical approach to elucidate these findings. These adverse outcomes were attributed to the suboptimal working conditions experienced by individuals in precarious employment.

Table.1 Characteristics of Precarious Work as Multidimensional Construct

S.No	Author	Characteristics of Precarious Work	Outcome
1.	Abdul Jalil et al (2023)	- Job insecurity - Low income	- Negative impact on mental health - Decreased job stability

2.	Hussein et al(2018)	- Lack of employment benefits - Temporary contracts	- Higher risk of workplace accidents - Lower job satisfaction
3.	McKay et al(2012)	- Low wages - Lack of job security	- Increased turnover rates - Reduced employee satisfaction - Lower access to social protection
4.	Nor et al(2022)	- Informal employment - Lack of labor rights	- Increased economic vulnerability - Lower job satisfaction
5.	Nungsari et al(2020)	- Underemployment - Inadequate benefits	- Reduced financial well-being
6.	Pye et al(2012)	- Temporary contracts - Insecurity about future employment	- Effect on wellbeing - Increased stress
7.	Vives et al(2013)	- Job instability - Lack of job security	- Negative impact on physical health - Lower job satisfaction
8.	Willette et al(2018)	- Low income - Non-standard working hours	- Reduced job stability - Increased psychological distress
9.	Mcassa et al(2017)	- Lack of job benefits - Non-standard work arrangements	- Effect on psychological wellbeing - Decreased job satisfaction
10.	McKay et al (2012)	- Social rights - Vulnerability	- Increased stress and burnout - Reduced job performance
11.	Kim et al (2020)	- Limited access to social protection - Lack of opportunities for skill development	- Decreased well-being - Reduced job satisfaction
12.	Kumar et al (2014)	- Seasonal or casual employment - vulnerability	- Decreased income security and general health - Increased ambiguity regarding work
13.	Stock et al (2021)	- Precarious contract arrangements - Inadequate job benefits	- Effect on physical and mental well being

Musculoskeletal Disorder

Allan et al (2021) discovered that there was no noteworthy contrast in the prevalence ratio of musculoskeletal disorders when comparing highly precarious employment with low or moderately precarious work. Nonetheless, (Majery et al., 2020) it is worth mentioning that the prevalence of musculoskeletal disorders was marginally higher on the subject of job precarity levels, Bouwhuis found that there were no significant distinctions in general health, complaints related to burnout, or chronic musculoskeletal health between individuals holding multiple jobs and those with a single job within the realm of precarious employment (Bonfiglioli et al., 2022). However, it's also noteworthy that 23% of both single and multiple job holders reported issues related to musculoskeletal health (Oakman et al., 2019).

Tabel 2. Effect of precarious work on Wellbeing

S.No.	Year	Dimensions of Precarious Work	Outcome
1.	Kalleberg & Hewison (2013)	- Non-standard employment	- Lower income
		- Job insecurity	- Reduced job stability
2.	Katz & Krueger (2019)	- Gig economy jobs	- Variable income
		- Lack of employment benefits	- Limited access to social protection
3.	Kim et al (2020)	- Temporary contracts	- Reduced job security
		- Low job control	- Lower job satisfaction
4.	Uchiyama et al (2022)	- Informal employment	- Limited access to benefits
		- Low wages	- Increased economic vulnerability
5.	Willette et al (2018)	- Irregular working hours	- Negative impact on mental health
		- Inadequate benefits	- Decreased job satisfaction
6.	Stock et al, 2021	- Precarious contract arrangements	- Effect on physical and mental well being
7.	Kim et al 2018	Non standard work	Increases incidence of msd
8.	Majery et al 2020	Employment contract	Msds
9.	Bonfiglioli et al 2022	Vulnerbil;ity	High prevalnce of msds
10.	Oakman et al 2019	Emplyement contract	Higher ratio of msds on contract workers
11.	(Simões et al., 2019)	Multiple dimensions of PW	Msds
12.	Park et al 2021	Job insecurity	Associated with msds
13.	(Matilla-Santander et al., 2020)	Multiple dimension	Prevalence of msds found
		- Precarious contract arrangements	- Effect on physical and mental well being
14.	Stock et al (2021)	- Inadequate job benefits	

Discussion

This systematic review adopts the multidimensional definition of precarity in order to explore the effects of precarious work on social, health, and workplace wellbeing results. The study highlights the absence of a well-defined conceptualization of precarious work, as the majority of studies focus solely on temporary employment and its negative effects. Interestingly, low wages and lack of vulnerability and rights were found to be more frequently studied. However, due to limited studies and variations in statistical methods, the review cannot determine the importance of changes in precarious work results (musculoskeletal disorders and wellbeing at work). Nonetheless, there was clear evidence of a correlation between greater levels of precarity and raising incidence of these health consequences. Precarious employment conditions were found to be linked to greater job stress, lower satisfaction of job and life, and adverse emotional wellbeing (Benach et al., 2014). Furthermore, dissatisfied precarious workers are likely to experience job stress at their jobs. Because workers continue to carry out competence. Competence is the ability to apply knowledge, skills, behavior and personality to

carry out tasks, both individually and organizationally in order to achieve superior work performance (Hidayat, C. W., Sulisty, Wilujeng, S., Chrismardani, Y., & Wahab. 2022). These findings are consistent with prior literature review on the precarious employment's effects on occupational health and safety and mental health (Bodin et al., 2020; Campbell & Burgess, 2018). The adverse effects of precarious employment on workplace wellness can be linked to unfavorable job conditions, including insecurity of employment, low wages, social protections and lack of rights, as well as substandard working conditions such as excessive workload, dangerous environments, and high demands (Kim et al., 2008; Kumar M et al., 2014). As a result, precarious workers are more likely to experience physical and mental health problems, including poor general health, musculoskeletal disorders, and poor mental health. These issues can occur due to various mechanisms such as high demanding workplace and lack of social support. This review highlights the effects of precarious employment on workers' wellbeing, job satisfaction, and health. Studies have shown that highly precarious workers experience lower levels of social and workplace wellbeing, life satisfaction, and job satisfaction compared to non-precarious workers. Precarious workers also report higher levels of job stress and burnout complaints (Ornek et al., 2022). Multiple job holding among precarious workers is associated with an increase in musculoskeletal disorders and physical health issues. However, it should be noted that many studies determining musculoskeletal disorders includes other work related physical demands not only focusing on precarious work.

The lack of health and safety practices and rights in precarious work is a significant concern as it may jeopardize the health and wellbeing of employees. Therefore, companies must guarantee quality for the sustainability of their employees (Wildan, M. A. 2020). Access to health and safety trainings/measures can be beneficial in minimizing health consequences of precarious workers. The reviewed studies did not account for the varying degrees of exposure to physical demands. Although musculoskeletal disorders are not direct outcome of precarious employment in few studies, certain types of precarious jobs may not provide adequate protection to workers from physical demands, which can result in musculoskeletal disorders. Nonetheless, it is important to approach this interpretation with caution as the evaluation comprised a restricted number of research. There exists a necessity for conducting more rigorous research that should investigate the multidimensional aspects of precarious employment. However, it is imperative to acknowledge the constraints that must be taken into account when evaluating the outcomes of this systematic review. Furthermore, the inclusion of literature focusing only on workplace wellbeing and musculoskeletal disorders with widely comparable physical and psychosocial conditions, might not contribute to the comprehension of precarious employment. This is because the overall conceptualization of work, precarity, and outcomes could potentially differ in such contexts.

Conclusion

The review summarizes the effect of precarious work on workplace wellbeing and musculoskeletal disorders. The findings suggest that engaging in precarious employment is associated with an elevated likelihood of experiencing various health and social outcomes, particularly in workplace and social wellbeing. The current review article also aims to provide a comprehensive understanding of precarious employment by exploring its multidimensional nature. Future studies should consider appropriate theoretical directions and longitudinal method of research. The future studies can also include emerging groups such as gig workers and contract based renewable energy industry workers, who share many characteristics with traditional precarious workers. In order to ascertain the social

and health concerns associated with precarious work, future research should consider specific methodological designs and research designs.

Reference

- Abdul Jalil, N. I., Tan, S. A., Ibharim, N. S., Musa, A. Z., Ang, S. H., & Mangundjaya, W. L. (2023). The Relationship between Job Insecurity and Psychological Well-Being among Malaysian Precarious Workers: Work–Life Balance as a Mediator. *International Journal of Environmental Research and Public Health*, 20(3), 2758.
- Benach, J., Vives, A., Tarafa, G., Delclos, C., & Muntaner, C. (2016). What should we know about precarious employment and health in 2025? Framing the agenda for the next decade of research. *International journal of epidemiology*, 45(1), 232-238.
- Benach, J., Vives Vergara, A., Amable, M., Vanroelen, C., Tarafa, G., & Muntaner, C. (2014). Precarious employment: understanding an emerging social determinant of health.
- Bodin, T., Çağlayan, Ç., Garde, A. H., Gnesi, M., Jonsson, J., Kiran, S., Kreshpaj, B., Leinonen, T., Mehlum, I. S., & Nena, E. (2020). Precarious employment in occupational health—an OMEGA-NET working group position paper. *Scandinavian journal of work, environment & health*. 2020; 46 (3): 321-9.
- Bonfiglioli, R., Caraballo-Arias, Y., & Salmen-Navarro, A. (2022). Epidemiology of work-related musculoskeletal disorders. *Current Opinion in Epidemiology and Public Health*, 1(1), 18-24.
- Campbell, I., & Burgess, J. (2018). Patchy progress? Two decades of research on precariousness and precarious work in Australia. *Labour & Industry: a journal of the social and economic relations of work*, 28(1), 48-67.
- Faidal, F., & Anshori, M. I. (2011). Pengaruh Pendidikan dan Pelatihan, Pengalaman Kerja, Kompetensi terhadap Kinerja Karyawan pada UKM di Bangkalan.BISMA(Bisnis Dan Manajemen),4(1), 15. <https://doi.org/10.26740/bisma.v4n1.p15-25>
- Hidayat, C. W., Sulisty, Wilujeng, S., Chrismardani, Y., & Wahab. (2022). Human resource competencies, supply chain management, and financial performance. *Uncertain Supply Chain Management*, 10(2), 471–476. <https://doi.org/10.5267/j.uscm.2021.12.004>
- Hussein, N., Ishak, N. A., & Hussain, I. A. (2018). Precarious Work Behaviour among Millennial Generation in Malaysia: A Preliminary Investigation. . *Turkish Online Journal of Design, Art and Communication*, 53(9), 1518-1523.
- Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. *American sociological review*, 74(1), 1-22.
- Kalleberg, A. L., & Hewison, K. (2013). Precarious work and the challenge for Asia. *American Behavioral Scientist*, 57(3), 271-288.
- Katz, L. F., & Krueger, A. B. (2019). The rise and nature of alternative work arrangements in the United States, 1995–2015. *Ilr Review*, 72(2), 382-416.
- Kim, I. H., Khang, Y. H., Muntaner, C., Chun, H., & Cho, S. I. (2008). Gender, precarious work, and chronic diseases in South Korea. *American journal of industrial medicine*, 51(10), 748-757.
- Kim, J., Henly, J. R., Golden, L. M., & Lambert, S. J. (2020). Workplace flexibility and worker well-being by gender. *Journal of marriage and family*, 82(3), 892-910.
- Kreshpaj, B., Orellana, C., Burström, B., Davis, L., Hemmingsson, T., Johansson, G., Kjellberg, K., Jonsson, J., Wegman, D. H., & Bodin, T. (2020). What is precarious employment? A systematic review of definitions and

- operationalizations from quantitative and qualitative studies. *Scandinavian journal of work, environment & health*, 46(3), 235-247.
- Kumar M, D., Ismail, N. A., & Govindarajo, N. S. (2014). Way to measure the concept precarious working conditions in oil palm plantations. *Asian Social Science*, 10(21), 1-10.
- Macassa, G., Bergström, H., Malstam, E., Hiswåls, A. S., Soares, J., Ahmadi, N., & Marttila, A. (2017). Experiences of employment precariousness and psychological well-being in east central Sweden. *Health Science Journal*, 11(2), 0-0.
- Majery, N., Shadi, J. W., & Trandafir, P. C. (2020). Precarious Work and Poor Occupational Health: A Cross-sectional Study in Luxembourg.
- Matilla-Santander, N., González-Marrón, A., Martín-Sánchez, J. C., Lidón-Moyano, C., Cartanyà-Hueso, À., & Martínez-Sánchez, J. M. (2020). Precarious employment and health-related outcomes in the European Union: a cross-sectional study. *Critical Public Health*, 30(4), 429-440.
- McKay, S., Jefferys, S., Paraksevpoulou, A., & Keles, J. (2012). Study on precarious work and social rights. *London: Working Lives Research Institute, London Metropolitan University*, 72-74.
- Nor, Z. M. (2022). Precarious employment amongst low income single mothers in Malaysia: The implications on family wellbeing. *E3S Web of Conferences*,
- Nungsari, M., Flanders, S., & Chuah, H.-Y. (2020). Poverty and precarious employment: The case of Rohingya refugee construction workers in Peninsular Malaysia. *Humanities and Social Sciences Communications*, 7(1), 1-11.
- Oakman, J., Clune, S., & Stuckey, R. (2019). Work-related musculoskeletal disorders in Australia. *Safe Work Australia: Canberra, Australia*.
- organisation, I. I. (2016). *Non-standard employment around the world: Understanding challenges, shaping prospects*. International Labour Office Geneva.
- Ornek, O. K., Waibel, J., Wullinger, P., & Weinmann, T. (2022). Precarious employment and migrant workers' mental health: A systematic review of quantitative and qualitative studies. *Scandinavian journal of work, environment & health*, 48(5), 327.
- Pye, O., Daud, R., Harmono, Y., & Tatat. (2012). Precarious lives: Transnational biographies of migrant oil palm workers. *Asia Pacific Viewpoint*, 53(3), 330-342.
- Quinlan, M. (2012). The 'pre-invention' of precarious employment: the changing world of work in context. *The Economic and Labour Relations Review*, 23(4), 3-24.
- Safrizal, H. B. A., Eliyana, A., & Febriyanti, K. L. (2020). The Effect of Double Role Conflict (Work Family Conflict) on Female Worker's Performance with Work Stress as the Intervening Variable. *Systematic Reviews in Pharmacy*, 11(10).
- Safrizal, H. B. A. (2023). Innovative Behavior as an Antecedent of Employee Performance. *resmilitaris*, 13(3), 904-915.
- Simões, M. R. L., Souza, C., Alcantara, M. A. d., & Assunção, A. Á. (2019). Precarious working conditions and health of metropolitan bus drivers and conductors in Minas Gerais, Brazil. *American journal of industrial medicine*, 62(11), 996-1006.
- Stock, R. (2021). Praeclariat: Theorising precarious labour geographies of solar energy. *Antipode*, 53(3), 928-949.

- Uchiyama, Y., Furuoka, F., & Akhir, M. N. M. (2022). Gig Workers, Social Protection and Labour Market Inequality: Lessons from Malaysia. *Jurnal Ekonomi Malaysia*, 56(3), 165-184.
- Vives, A., Amable, M., Ferrer, M., Moncada, S., Llorens, C., Muntaner, C., Benavides, F. G., & Benach, J. (2010). The Employment Precariousness Scale (EPRES): psychometric properties of a new tool for epidemiological studies among waged and salaried workers. *Occupational and environmental medicine*, 67(8), 548-555.
- Vosko, L. F. (2011). *Managing the margins: Gender, citizenship, and the international regulation of precarious employment*. OUP Oxford.
- Willette, R. (2018). Precarious employment arrangements and adverse physical health outcomes: The influence of work-related psychosocial factors that can impact health. *American Journal of Medical Research*, 5(2), 58-64.
- Wildan, M. A. (2020). Employee's productivity at the operation of Indonesian railway. *The Indonesian Accounting Review*, 10(1), 47-50.