



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

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Abstract

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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.

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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. 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 at least 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. 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. 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
5.	Nungsari et al(2020)	- Underemployment - Inadequate benefits - Temporary contracts	- Lower job satisfaction - Reduced financial well-being
6.	Pye et al(2012)	- 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 - Reduced job stability
8.	Willette et al(2018)	- Low income - Non-standard working hours	- 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 - Job insecurity	- Lower income - Reduced job stability
2.	Katz & Krueger (2019)	- Gig economy jobs - Lack of employment benefits	- Variable income - Limited access to social protection
3.	Kim et al (2020)	- Temporary contracts - Low job control	- Reduced job security - Lower job satisfaction
4.	Uchiyama et al (2022)	- Informal employment - Low wages	- Limited access to benefits - Increased economic vulnerability
5.	Willette et al (2018)	- Irregular working hours - Inadequate benefits	- Negative impact on mental health - 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
14.	Stock et al (2021)	- Precarious contract arrangements - Inadequate job benefits	- Effect on physical and mental well being

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. 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. 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 social 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.

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