



International Journal of Economics and Business Research

ISSN online: 1756-9869 - ISSN print: 1756-9850 https://www.inderscience.com/ijebr

Unique insights: the mediating role of learned helplessness on the influence of perceived dirty work on career transition intentions, and the moderating role of job crafting and career calling

Xiao Xiao, Sze-Ting Chen

DOI: <u>10.1504/IJEBR.2025.10070406</u>

Article History:

Received:	04 December 2024
Last revised:	07 March 2025
Accepted:	12 March 2025
Published online:	15 April 2025

Unique insights: the mediating role of learned helplessness on the influence of perceived dirty work on career transition intentions, and the moderating role of job crafting and career calling

Xiao Xiao

Chinese International College, Dhurakij Pundit University, Bangkok, Thailand Email: yhkxiao@gmail.com

Sze-Ting Chen*

Program in Business Administration, Chinese International College, Dhurakij Pundit University, Bangkok, Thailand Email: d974010008@gmail.com *Corresponding author

Abstract: Dirty work is shunned by all and is often associated with low status and low pay. The purpose of this study is to explore the influence of employees' perceived dirty work on the mindsets and business performance of practitioners across various industries. A total of 989 validated questionnaires were collected. The results indicated that perceived dirty work has a positive effect on career transition intentions and can lead to career transition intentions through learned helplessness. However, job crafting and career calling negatively moderate all three relationships. Existing studies have explored the effects of job satisfaction and occupational identity on career transition intentions, but have predominantly focused on general occupational groups and less on practitioners of stigmatised occupations, thereby broadening theories related to stigmatised occupations and perceptions of dirty work.

Keywords: perceived dirty work; career transition intentions; learned helplessness; job crafting; career calling.

Reference to this paper should be made as follows: Xiao, X. and Chen, S-T. (2025) 'Unique insights: the mediating role of learned helplessness on the influence of perceived dirty work on career transition intentions, and the moderating role of job crafting and career calling', *Int. J. Economics and Business Research*, Vol. 29, No. 11, pp.1–30.

Biographical notes: Xiao Xiao is currently studying PhD in Business Administration at Dhurakij Pundit University in Bangkok, Thailand. Her interesting researches include organisational behaviour, human resources and psychology. Sze-Ting Chen is the Director of Master of Business Administration Program in Chinese International College at Dhurakij Pundit University. She earned her Doctorate in Department of Business Management in National Sun Yatsen University, Kaohsiung, Taiwan. Her research focuses on strategic management, organisational behaviour, human resources, psychology, etc.

1 Introduction

The relationship between perceived dirty work, career calling, job crafting, and career transition intention is currently receiving increasing attention in contemporary research on organisational behaviour and psychology. Previous research on dirty work has often explored job satisfaction, self-esteem, and work value (Deery et al., 2019; Rabelo and Mahalingam, 2019). The stigma associated with dirty work has evolved into a socially disapproving attribute (Goffman, 1963; Link and Phelan, 2001) manifesting in negative emotions and behaviours such as avoidance, job withdrawal, and career change (Pinel and Paulin, 2005; Shantz and Booth, 2014).

Perceived dirty work arises from the work itself, although it can come from the individuals involved, making it both a personal and social phenomenon. This study is based on Ashforth and Kreiner (1999) as a reference, perceived dirty work is defined as an employee's perception of the work environment in which they are engaged as dirty, socially inferior, or morally questionable based on social stigma. In recent years, dirty work has been reported to have a greater impact on employees who perceive dirty work and are prone to displaying negative behaviours in the workplace (Stacey, 2005; Grandy, 2008; Cruz, 2015). Career transition intentions refer to major career changes that may occur in the next few years or the intention to leave one's job (Ferraro et al., 2018). The main purpose of this study on career transition intentions is to understand the psychological reasons that contribute to employees' career transition intentions (Flickinger et al, 2016), and whether any other factors can reduce the employees' exit mindset so as to prevent a decline in their learning curve. Wen et al. (2022) argued that employees in menial jobs (e.g., garbage collectors) feel shame regarding their occupations and perceive their work as dirty as they are performing it, leading to career transition intentions. Previous research on career transition intentions has often explained the concept using theories such as resource conservation and self-determination theory (McGinley, 2018; Salleh et al., 2020). However, these articles explored how perceived dirty work leads to less frequent career transition intentions without examining the mechanism for the change, which is a gap that this paper seeks to address.

To further explore the relationship between career transition intentions and employees' perceived dirty work and the intrinsic mechanism of action, this study explored the influence of employee' perceived dirty work on career transition intentions through learned helplessness based on affective events theory (AET). Learned helplessness is a negative state of mind in which an employee, after many unsuccessful attempts and experiencing the shock of failure, believes that he or she can never succeed again, and chooses to give up (Maier and Seligman, 1976). Not only does dirty work hurt employees' self-esteem, but it also leads to learned helplessness (Lai et al., 2013; Winters et al., 2022). Learned helplessness can influence employees to develop career transition intentions (Tayfur et al., 2013; Yadav and Goyal, 2016). Few studies have explored

Unique insights

learned helplessness as a mediator of the impacts of perceived dirty work on career transition intentions, and this research gap will be examined in this study.

Career calling was originally considered a transcendent purpose aimed at serving the public. In recent years, the idea of calling has expanded beyond the original religious framework to include broader interpretations of purpose. Those with career calling see their work as meaningful and can contribute to others through their work (Dik and Duffy, 2009). Career calling makes employees feel that their work is meaningful (Ahn et al., 2017; Esteves and Lopes, 2017; Li et al., 2024). Job crafting refers to the process by which employees reconstruct and redesign their jobs to achieve meaning and satisfaction. This process includes modifications in the job's cognitive aspects or task responsibilities, as well as relational recasting (Wrzesniewski and Dutton, 2001). Research has shown that job crafting leads to greater employee satisfaction (Kim et al., 2018; Yang et al., 2023). Employees with high job satisfaction and a sense of security perform better in areas such as career decision-making, organisational commitment, and lower absenteeism (Cardador et al., 2011; Hendarti et al., 2021). Furthermore, when job crafting is limited, it increases the negative impact of learned helplessness (Roskams and Havnes, 2021). Few studies have considered the moderating roles of job crafting and career calling between perceived dirty work and career transition intentions; the inclusion of these variables will provide a more comprehensive theory and model of the relationship.

Additionally, previous research has explored perceived dirty work along with identity and psychological factors (Ashforth and Kreiner, 1999; Kish-Gephart et al., 2023), including how society isolates such work (Bentein et al., 2017; Mejia et al., 2021). However, little is known about how learned helplessness, job crafting, and career calling influence career transition intention. This study examines the negative affect (affective path), career calling, and job crafting (non-affective path) generated by people's jobs entailing dirty work to explore whether job crafting or career calling has a greater impact on perceived dirty work and career transition intentions. Related questions of interest include determining if learned helplessness mediates between perceived dirty work and career transition intentions and whether career calling or job crafting has the moderating effect on learned helplessness.

The innovations of this study are as follows. First, previous research has focused on how perceived dirty work affects employees' job identity and career satisfaction (Schaubroeck et al., 2018; Léné, 2019; Rabelo and Mahalingam, 2019). However, there has been little in-depth examination of individuals' psychological experiences, particularly how learned helplessness affects their career decisions. Previous studies have primarily focused on the impact of external factors, such as social appraisal and industry norms, on career transitions (Ferraro et al., 2018; De Vos et al., 2021). The impact of organisational culture, personal fit (Bhatt et al., 2024) and job satisfaction (Tyagi et al., 2023) on career transition intentions has also been examined. In contrast, this study emphasises the psychological state of learned helplessness in career decision-making. By introducing learned helplessness as a mediating variable, we can explore how perceived dirty work affects career transition intentions. Second, individuals may mitigate the negative effects of perceived dirty work through positive psychological adjustment strategies (Wrzesniewski and Dutton, 2001). However, empirical evidence regarding which factors effectively buffer the effects of perceived dirty work and learned helplessness on career transition intentions remains limited. Therefore, this study further explores the moderating effect of job crafting and career calling in this process and compares the relative influence of these two moderators. This provides a new theoretical

perspective for enhancing the career stability of individuals experiencing perceived dirty work. The findings of this study not only expand the theoretical framework of perceived dirty work, but also provide important empirical evidence for companies and governments to formulate management and incentive policies for dirty work occupations.

An emotional perspective is offered to explain the model through affective event theory, which provides a more comprehensive understanding of the psychological and behavioural responses of employees to perceived dirty work and how these responses affect their career choices and career development. It also provides a richer and more indepth perspective to understand between perceived dirty work and career transition intentions. This helps managers better identify and address employees' career transition intentions and career development paths so they can formulate more effective management strategies and interventions to enhance job satisfaction and loyalty, improve organisational performance, and maintain a stable corporate development. This study investigates the influence of employees' perceived dirty work on career transition intentions and contributes to the study of employees' career psychology and behaviour. It also explores the indirect impact of employees' perceived dirty work on career transition intentions from the mediating perspective of learned helplessness, which provides theoretical and practical implications for reducing the turnover rate of employees and contributing to the stability of the workforce. Finally, the moderating role of job crafting and career calling is explored, thereby enriching our understanding of the influence of employees' perceived dirty work on career transition intentions by providing boundary scenarios.

2 Literature review

2.1 Affective events theory

The affective event theory was developed by Weiss and Cropanzano (1996), and it posits that an affective response emerges following cognitive appraisal, and it is the cognitive appraisal of a particular event, not the event itself, that determines the affective response. The theory states that features of the work environment influence the events that employees experience and employees perceive these work events through varying emotional responses. These responses are seen in two behaviours: direct behaviour, for example, employees may develop negative behaviours, such as withdrawal. Another type of behaviour is produced indirectly by influencing work attitudes; for example, if employees accumulate negative feelings over a long period, they may develop negative work attitudes and career transition intentions, which can lead to exit behaviours rather than a momentary impulse to leave the job (Lee et al., 2021; Nimon et al., 2023). The complete chain of the theory is 'event-emotion-attitude-behaviour', which can reveal the complete mechanism of employees' emotions at work, thus providing a logical research framework for this paper.

2.2 Perceived dirty work and career transition intentions

Perceived dirty work can cause negative emotions and increase career transition intentions among employees (Kreiner et al., 2006; Lopina et al., 2012). As the experience

of dirty work increases, employees can feel a heightened perception of dirty work, which prompts them to consider transitioning careers (Lai et al., 2013; Schaubroeck et al., 2018). Employees who have higher perceived dirty work are more likely to have career transition intentions; for example, waiters in restaurants and employees in casinos can experience higher turnover rates (Wildes, 2005; Ashforth and Kreiner, 2014).

Employees engaged in dirty work (e.g., garbage collectors, cleaners, etc.) feel stigmatised by their profession and perceive dirty work while they are working, which can lead them to consider a career change (Shava and Chinyamurindi, 2019; Wen et al., 2022). The stigmatisation of an employee's work can make them perceive dirty work, affect their self-esteem, and make them feel emotionally exhausted at work, thus generating career transition intentions (Huang et al., 2022; Nazari et al., 2017). Employees who engage in occupational stigmatisation experience a lack of respect in the work process, perceived dirty work, and a low sense of occupational identity, leading to career transition intentions (Pinel and Paulin, 2005; Lv et al., 2023).

In conclusion, perceived dirty work enhances employees' negative emotions and low self-esteem, which increases their career transition intention to leave their current position and seek a more rewarding career. Therefore, the following hypothesis is formulated:

H1 Perceived dirty work has a positive impact on career transition intentions.

2.3 Learned helplessness, perceived dirty work and career transition intentions

The various social stigmas underlying perceived dirty work can cause negative emotional experiences for employees (Petriglieri, 2011; Kreiner et al., 2022). Negative emotions such as feelings of inferiority that arise when employees are confronted with stigma can increase the likelihood of learned helplessness (Smallheer and Dietrich, 2019). For example, long-term elderly care workers perceived dirty work due to negative public perceptions of their work, leading to a sense of helplessness on the job (Ostaszkiewicz et al., 2016). Employees in frontline menial jobs experienced perceived dirty work that they viewed as a great struggle, and this perception led to learned helplessness (Ashforth et al., 2007; Braun et al., 2022). Rubbish collectors and street cleaners felt helpless while performing dirty work, resulting in learned helplessness (Shepherd et al., 2022). Temporary agency workers experienced feelings of powerlessness and learned helplessness while performing dirty work such as cleaning and unloading (Bosmans et al., 2016). Cleaning staff perceived dirty work and had a sense of job inferiority; their children were teased at school and they were afraid to tell others about the work they were doing, which caused them to develop a sense of helplessness (Zulfigar and Prasad, 2022). Thus, perceived dirty work can cause learned helplessness.

Sparr and Sonnentag (2008) found a positive correlation between learned helplessness and career transition intention. Learned helplessness can cause employees to experience problems such as alienation and withdrawal, leading to the development of career transition intentions (Yadav and Goyal, 2016; Rafiq et al., 2022). When people feel helpless about chronic stress, it may cause them to increase their career transition intentions (Tayfur et al., 2013; Koc and Bozkurt, 2017). Learned helplessness increases nurses' career transition intentions (Moreland et al., 2015). Kale and Aknar (2020) argued that the presence of learned helplessness among hotel employees increased their job satisfaction and career transition intentions. Therefore, learned helplessness leads to career transition intentions.

Taken together, the above analyses and affective event theory suggest that when employees had perceived dirty work and repeatedly experience unchangeable learned helplessness, this affective response gradually accumulates and generates career transition intentions, thereby increasing the turnover rate. Therefore, the following hypothesis is formulated:

H2 Learned helplessness mediates between perceived dirty work and career transition intentions.

2.4 The moderating role of job crafting

Shin et al. (2020) found that job crafting reduced employees' career transition intentions. Research has shown that employees are not completely helpless when they intend to leave their jobs and employees can reduce the negative impact of helplessness on their jobs by redesigning their jobs through job crafting (Hommelhoff et al., 2021). Limited job crafting increases the negative impact of learned helplessness (Roskams and Haynes, 2021). Job crafting can change one's perceptions of their job, and in the event of a setback, one will retry their job if it is consistent with one's needs and goals, thus reducing negative behaviours caused by learned helplessness (Hornung, 2020).

In summary, job crafting causes employees to feel intrinsically motivated when they reconstruct and redesign their work to make it more meaningful and have their own values and ideals (Bakker and Demerouti, 2014; Boehnlein and Baum, 2022). Job crafting supports efforts towards self-improvement by reconstructing a more positive work identity, which has positive impacts on both individuals and organisations (Slemp, 2016). When employees engage in strong job crafting, even if they feel learned helplessness, they reconstruct and redesign their perceptions and relationships with their jobs. Consequently, they rediscover the value and meaning of their work from their jobs, which helps them overcome the negative thoughts and behaviours caused by learned helplessness. Therefore, when perceived dirty work leads to learned helplessness, employees with high job crafting will overcome the negative effects of learned helplessness better than those with low job crafting, thus reducing career transition intentions. In summary, the following hypothesis is proposed:

H3 Job crafting plays a negative moderating role between learned helplessness and career transition intention.

Employee job crafting can reduce negative impacts, such as turnover caused by perceived dirty work, and increase employee job dedication (Davis, 2022). Job crafting allows employees who perceive dirty work while working in low-level menial jobs to reduce their negative behaviours. Specifically, they use their professional knowledge and practices to reconstruct their professional identity and challenge their prescribed work boundaries (Fuller and Unwin, 2017). Job crafting reconstructs employees' views and changes their perceptions of their jobs; for example, a hospital cleaner sees her job as a means of helping people, not just cleaning (Niessen et al., 2016). Employees reconfigure the meaning of work and their identity by building relationships with others at work, which can bring meaning to their lives, thus reducing career transition intention (Wrzesniewski and Dutton, 2001; Shepherd and Williams, 2018) and the negative

Unique insights

impacts of perceived dirty work. Job crafting allows employees engaged in perceived dirty work to reconstruct their perceptions, replacing its stigmatised attributes with work that possesses positive external and internal qualities. This helps employees view their work as enjoyable and rewarding, thus reducing the negative behaviours associated with perceived dirty work (Slemp, 2016).

In summary, this study argues that job crafting allows employees with perceived dirty work to reconstruct their perceptions of their jobs, helping them integrate their jobs with their intrinsic motivation to engage in work that has value and meaning. Due to job crafting, employees experience improved self-confidence, thus working hard and reducing their career transition intentions. Therefore, the following hypothesis is proposed:

H4 Job crafting plays a negative moderating role between perceived dirty work and career transition intentions.

2.5 The moderating role of career calling

Employees with high career calling demonstrate firmness in their commitment to their current career or organisation; they are more willing to stay in the organisation and have fewer career transition intentions (Duffy et al., 2012; Rawat and Nadavulakere, 2015). Employees with a high career calling are more satisfied with their jobs and careers, which elevates their sense of job significance; therefore, they are less likely to change jobs and have fewer career transition intentions (Greene and Robbins, 2015; Chen et al., 2018). High career calling helps increase the likelihood of career success for employees who, compared to those who lack a sense of career calling, achieve higher incomes, positions, and social status, and take fewer sick days. These employees also reduce the negative effects of negative emotions, such as feelings of helplessness and reduced career transition intentions (Wrzesniewski et al., 1997; Duffy et al. 2011; Cardador et al., 2011). Individuals with a high career calling who have their own pursuits reduce the negative effects of learned helplessness (Bikos et al., 2013). They also have a great deal of passion and commitment to their profession and hope for their work, which reduces the negative emotions and behaviours associated with feelings of helplessness (Bullough and Hall-Kenyon, 2012; Zhang et al., 2023; Hong et al., 2023).

Therefore, this study argues that when employees feel a stronger career calling, they are more likely to view their work as having meaning and value, which, in turn, enhances their sense of self-efficacy and positive emotions. Career calling can motivate employees to take proactive action in the face of adversity, rather than falling into a state of helplessness. When career calling is high, even when employees face situations of learned helplessness, they are more inclined to seek solutions and change directions, thus reducing career transition intentions. Therefore, the following hypothesis is proposed:

H5 Career calling plays a negative moderating role between learned helplessness and career transition intention.

Employees with a sense of career calling can mitigate the negative outcomes of perceived dirty work (Sharma et al., 2022). For example, employees in aged care counteracted the negative impacts of perceived dirty work by seeking a positive professional identity (Clarke and Ravenswood, 2019). A person who perceives a career calling will perceive their work as highly meaningful, which can mitigate the negative impacts of perceived

dirty work (Duffy et al., 2019). Employees engaged in dirty work who construct positive identities and view work as a calling rather than a job or career are less likely to engage in negative thoughts and behaviours (Ashforth and Kreiner, 1999; Ashforth et al., 2007; Bloom et al., 2021). Employees with a high career calling are satisfied with their current careers and jobs and less willing to change their careers; therefore, they have fewer career transition intentions and are likely to remain in their current careers (Chen et al., 2018; Presbitero and Teng-Calleja, 2020). Employees with a high career calling show greater job and organisational commitment, and a lower willingness to change careers (Duffy et al., 2011; Duffy and Dik, 2013; Supeli and Creed, 2016).

In conclusion, employees with higher career calling have a stronger sense of responsibility for their work; they believe that the work achieves values and life goals. Employees regard dirty work as a calling when they pay more attention to the work goals that reflect the meaning of life and increase their efforts to achieve these goals. The perception that they can realise the value in their dirty work motivates them to work hard, realise their self-worth, and reduce the negative impact of perceived dirty work, thus reducing career transition intentions.

H6 Career calling plays a negative moderating role between perceived dirty work and career transition intentions.

Based on the preceding discussion, the research framework of this study is presented in Figure 1.

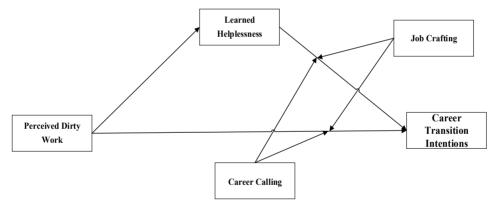


Figure 1 Research framework diagram

Source: Prepared by the author (2024)

3 Data collection and sample

3.1 Sample sources

The study adopted the intentional sampling method, as it allowed the researcher to select a sample that best suited the purpose of the study based on personal judgement. Intentional sampling helps ensure that the selected sample is representative, especially when focusing on specific occupational groups and social cognitive issues so that members of the parent group who are difficult to reach and have special attributes are selected. By selecting a representative group of people with perceived dirty work occupations, this study effectively explores the characteristics and social perceptions of this group. Four major cities in China (Beijing, Guangzhou, Chengdu, and Shandong) were surveyed, and each city was selected based on differences in economic characteristics, cultural backgrounds, and social structures. Beijing represents the capital of China and its economic, political, and cultural centre; Guangzhou denotes the economic dynamism of the southern region; Chengdu stands for the developmental dynamics of the western cities; and Shandong represents the northern and central regions with a high degree of social diversity, ensuring regional diversity.

The sample for this study was based on Ashforth and Kreiner (1999), who reported that perceived dirty work exists in different occupations. Therefore, people engaged in dirty work, including hotel cleaners, rubbish disposal workers, real estate agents, bar dancers, and postpartum care workers. These groups were selected based on Ashforth and Kreiner's (1999) definition of 'perceived dirty work' as occupations that are typically highly physically labour-intensive, of low social status, with low social acceptance, and which meet the criteria for 'perceived dirty work'. The criteria for 'perceived dirty work' ensured that a representative group of occupations was included. As defined by Ashforth and Kreiner (1999), 'perceived dirty work' refers to occupations that involve physical, social, or moral labour and are often subject to social stigma. In China, real estate agents and postpartum care workers are usually considered to belong to the category of perceived dirty work to a certain extent, owing to the special nature of their work and social demands. Specifically, real estate agents often face professional stigma in some parts of China, particularly concerning excessive competition in the real estate sector and negative consumer perceptions of their services (e.g., sales pitches and exaggerated advertisements), which may affect their social identity (Eastman et al., 1996; Berkelaar et al., 2012; Furst and Evans, 2017). Postpartum care workers, who have gained greater social recognition in recent years, are predominantly rural-urban migrant women owing to the nature of their work, which involves intimate and physical care. They work in nursing to earn a living, and physical dirty work involves physical contact with filth. This paper, which follows Ashforth and Kreiner's (1999) definition, considers Chinese cultural characteristics and explains it more broadly as a task that involves intimate and physical care to help care for a person from the perspective of physical dirty work. A certain amount of social stigma extends theories related to perceived dirty work (Tu et al., 2021; Sa and Liu, 2022; Ashforth and Kreiner, 2014).

The reasons for studying only these five groups are: The first is the representativeness of occupational categories. The five occupations in this study belong to each of these categories to ensure that the study is broad and representative. For example, hotel cleaners and garbage disposers represent the traditional labour sector, bar dancers work in the entertainment sector, real estate agents are from the commercial sector, and postpartum care workers belong to the service sector. This selection helps provide a comprehensive view of how perceived dirty work manifests in different occupational categories. The second is the feasibility of data collection. In the actual survey process, obtaining data regarding some occupations entails greater difficulty due to industry characteristics or privacy sensitivity. Moreover, the high mobility of people in certain occupations makes it challenging to conduct systematic surveys. Therefore, this study prioritises occupations with a more stable employment base in the study area for which data can be easily obtained to ensure the operability and reliability of the data. Finally, we discuss the geographical and cultural appropriateness of the study. In the region where this study was conducted, all five occupations are subject to some degree of social stigma, consistent with the perceived dirty work. Other occupations that meet Ashforth and Kreiner's (1999) definition have relatively low levels of social stigmatisation in the study area or have limited sample sizes and are not suitable for this study. Therefore, the occupations selected for this study are consistent with theoretical definitions and have realistic applicability. Therefore, this study considers the representativeness of occupational categories, feasibility of data collection, and geocultural appropriateness, while ensuring the applicability of the theoretical framework. Hotel cleaners, garbage disposal workers, bar dancers, real estate salespeople, and postpartum care workers were ultimately selected for the study.

This study employed purposive sampling to select participants from five types of related professions, all aged 18 and above, in four cities: Beijing, Guangzhou, Chengdu, Shandong. This was to comply with the Labour Law of the People's Republic of China, which defines individuals under 18 as minor workers, who are typically not legally employed in most professions. In addition, since the research variables include career development and the willingness to change careers – factors requiring some career experience – individuals under the age of 18 were excluded to ensure the findings' applicability and relevance.

According to Sudman (1976), the sample size for a national study should not be less than 1,500. Thus, 1,600 questionnaires were distributed for this study, 400 in each city, and 80 questionnaires were allocated to each occupational group to ensure balanced representation across groups and regions. This approach to sample allocation and questionnaire distribution promoted a broad sample, statistically significant findings, and enhanced the transparency and depth of the research methodology. The questionnaires were distributed in two waves over a four-month period from June 1 to September 30, 2024. Two forms of the questionnaire were distributed, with the questions divided equally between them. One form was distributed by the researcher standing outside a workplace, who waited for employees to finish their work and asked them to complete the questionnaire. Every ten minutes, an off-duty employee was asked to complete the questionnaire and offered a reward of 10 yuan for participation. The employee's contact information was collected for future questionnaire completion. The employees were informed that their responses would be used for academic purposes only and the information kept confidential. Respondents could opt out at any time during the completion process. The second form of the questionnaire was distributed to contact employers and ask them to request that their employees to complete the questionnaire.

Of the 1,600 questionnaires distributed and collected in this study, 989 valid questionnaires were included in the analysis. A total of 611 invalid questionnaires were excluded due to being incomplete (the presence of one or more unanswered questions) or completed with obvious regularity (e.g., questionnaires in which '7' or '1' was selected for each question). In addition, questionnaires were excluded if the person could not be contacted for the second administration of the questionnaire. The response rate for valid surveys was 61.8%.

3.2 Measures

Based on Bullinger et al. (1998), the present study compiled, translated, back-translated, and corrected the scale for the native Chinese language. A Likert seven-point scale was used in this study.

Unique insights

Perceived dirty work was the independent variable measured using a 12-question scale by Schaubroeck et al. (2018). Learned helplessness was a mediating variable measured using a six-question scale related to learned helplessness by Sorrenti et al. (2015). Job crafting was a moderating variable measured with 18 oriented job crafting items from Laurence (2010) that were used by Wang et al. (2020). Career calling was a moderating variable, measured with a scale developed by Dik et al. (2012). In this study, the participants all had work experience, so the 11 scale items for career calling were used as the measure for this study. Career transition intentions were measured using the six-question scale from Brashear et al. (2005).

After the questionnaires were returned, the demographics of the sample were analysed. Overall, 503 (50.9%) participants were male and 486 (49.1%) were female. In terms of age, 269 persons (27.2%) were aged 18–30, 315 persons (31.9%) were aged 31–40, 256 persons (25.9%) were aged 41–50, 135 persons (13.7%) were aged 51–60, and 14 persons (1.4%) were aged 61 years and over. In terms of education, 581 people were in high school or below, accounting for 58.7% of the total, 347 people were in specialties, accounting for 35.1%, and 61 people had a bachelor's degree or above, accounting for 6.2%. The number of people who had worked for their current company for less than one year was 349 (35.3%), for 1-5 years was 375 (37.9%), for 6-10 years was 164 (16.6%), for 10 years was 66 (6.7%), and for 11 years and over was 35 (3.5%). In terms of careers, there were 215 hotel cleaners (21.7%), 181 rubbish disposal workers (18.3%), 118 bar dancers (119%), 251 real estate agents (25.4%), and 224 postpartum care workers (22.6%).

4 Analysis and results

4.1 Reliability and validity analysis

Table1 presents the reliability test results for the formally validated questionnaire used in this study. The Cronbach's α values for all five variables are greater than 0.8, indicating good reliability (Wu, 2010). The validated factor loadings corresponding to the question items for all five variables were greater than 0.5, the CRs were all greater than 0.7, and the AVEs were greater than 0.5, indicating good convergent validity (Anderson and Gerbing, 1988). As shown in Table 5, the correlation coefficients between any two variables were less than the square root of the AVE, indicating good discriminant validity (Anderson and Gerbing, 1988).

Variable	The loading of factor	The total Cronbach's $lpha$	CR	AVE
Perceived dirty work	0.850-0.877	0.972	0.972	0.745
Learned helplessness	0.716-0.761	0.880	0.879	0.549
Job crafting	0.842-0.859	0.979	0.979	0.723
Career calling	0.867-0.891	0.974	0.974	0.773
Career transition intentions	0.683-0.772	0.885	0.875	0.540

Table 1The reliability and validity test table

Source: Prepared by the author (2024)

In terms of model fit, $\chi^2/df = 1.200$ (<5), CFI = 0.995 (>0.9), TLI = 0.994 (>0.9), RMSEA = 0.014 (<0.08), and SRMR = 0.020 (<0.08), which meets the fitness criterion and indicates a good model fit (Hu and Bentler, 1999).

4.2 Common method bias

One-way analysis of variance was used to test for common method bias (Harman, 1976). As shown in Table 2, the results revealed that the cumulative percentage of the sum of the squares of the loadings extracted before the rotation of the first principal component was 27.974% (<40%), indicating no common method bias (Podsakoff et al., 2003).

	1	Initial eigenvalue			Extract the sum of squared loads			
Ingredient	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %		
1	14.826	27.974	27.974	14.826	27.974	27.974		
2	9.515	17.952	45.926	9.515	17.952	45.926		
3	7.697	14.523	60.449	7.697	14.523	60.449		
4	4.441	8.379	68.828	4.441	8.379	68.828		
5	2.375	4.481	73.310	2.375	4.481	73.310		

Table 2Common method bias test table

Source: Prepared by the author (2024)

4.3 Non-response bias test

A non-response bias test was conducted according to Armstrong and Overton (1977). This study utilised SPSS 27.0 to conduct a chi-square analysis with an independent samples t-test on the range of gender, age, education, and length of time working in the current company. The results showed that the distribution of chi-square values (χ^2) on demographic information ranged from 0.854 to 3.632 (p > 0.05) for the two sample data sets. All t-tests for the equivalence of means in the independent sample t-tests were not significant (p > 0.05); thus, it can be preliminarily concluded that the sample dataset collected earlier was not significantly different from the sample dataset collected later. The test results indicated that the non-response bias of the sample dataset was not a serious problem.

No. Basic information	Basic information	Early responders	Late responders	Chi-sqı	iare test		Independent samples t-test	
	(N)	(N)	χ^2	р	t	р		
1	Gender	496	493	0.854	0.356	0.923	0.356	
2	Age	496	493	3.632	0.458	1.631	0.103	
3	Education	496	493	1.277	0.528	-0.959	0.338	
4	Length of time working in current company	496	493	1.320	0.858	0.116	0.907	

Table 3Non-response bias table

Source: Prepared by the author (2024)

4.4 Descriptive statistics

In Table 4, the absolute values of kurtosis and skewness for these five variables range from 0.327-0.961 (<10) and 0.084-0.194 (<5), respectively, which is consistent with a normal distribution (Lei and Lomax, 2005).

Variable	М	S.D.	Skewness	Kurtosis
Perceived dirty work	4.156	1.339	0.097	-0.823
Learned helplessness	4.097	1.127	0.137	-0.327
Job crafting	4.181	1.459	-0.178	-0.949
Career calling	4.013	1.400	0.194	-0.961
Career transition intentions	4.101	1.204	0.084	-0.690

Table 4Descriptive statistics table

Source: Prepared by the author (2024)

4.5 Correlation analysis

The Pearson's correlation coefficient in Table 5 indicates that all variables were correlated (p < 0.05), except career calling.

 Table 5
 Distinguishing validity, correlation analysis table

Va	riable	1	2	3	4	5
1	Perceived dirty work	0.863				
2	Learned helplessness	0.205***	0.741			
3	Job crafting	-0.089**	-0.105***	0.850		
4	Career calling	-0.065*	0.004	0.235***	0.879	
5	Career transition intentions	0.222***	0.375***	-0.095**	0.018	0.735

Notes: *p < 0.05, **p < 0.01, ***p \leq 0.001. Italics values are the arithmetic square root of AVE.

Source: Prepared by the author (2024)

5 Structural equation modelling

5.1 Analysis of the direct effect results

The path from perceived dirty work to career transition intentions was examined. The fit indices of the direct effects model were as follows: $\chi^2/df = 2.630$ (<5), CFI = 0.986 (>0.9), TLI = 0.984 (>0.9), RMSEA = 0.041 (<0.08), and SRMR = 0.016 (<0.08), which meets the fit criteria (Hu and Bentler, 1999; Feng and Chen, 2024).

After testing, the coefficient of the influence of employees' perceived dirty work on career transition intentions in the direct effect model was 0.240 and significant (p=0.000<0.001), which indicates that perceived dirty work had a significant positive effect on career transition intentions, supporting hypothesis H1.

5.2 Analysis of the mediating effect results

The fit indicators for the mediation model with learned helplessness as a mediating variable were as follows: $\chi^2/df = 1.859$ (<5), CFI = 0.988 (>0.9), TLI = 0.987 (>0.9), RMSEA = 0.029 (<0.08), and SRMR = 0.017 (<0.08), which meets the fit criteria (Hu and Bentler, 1999; Feng and Chen, 2024).

The results in Table 6 show that the bootstrap 95% confidence interval (CI) for the mediating path was [0.059, 0.115] and did not contain zero, implying the significant indirect effect. The coefficient of influence for the total effect was 0.240, with a 95% CI of [0.176, 0.303] and no zeros, implying the significant total effect. In addition, the direct effect impact coefficient was 0.153 with a 95% CI of [0.088, 0.218] and it contained no zeros, implying the significant direct effect. Therefore, this result indicates that the mediator is partial; thus, H2 was supported.

Effect	Hypotheses paths	Effect	S.E.	t	р	LLCI	ULCL
Direct effect	$PDW \rightarrow CTI$	0.153	0.033	4.589	0.000	0.088	0.218
Indirect effect	$PDW \rightarrow LH$	0.222	0.033	6.706	0.000	0.157	0.287
	$LH \rightarrow CTI$	0.391	0.028	14.015	0.000	0.337	0.446
Total indirect effect	$PDW \rightarrow LH \rightarrow CTI$	0.087	0.014	6.025	0.000	0.059	0.115
Total effect	$PDW \rightarrow CTI$	0.240	0.032	7.391	0.000	0.176	0.303

Table 6The mediating effect results table

Note: PDW – perceived dirty work; LH – learned helplessness; CTI – career transition intentions.

Source: Prepared by the author (2024)

5.3 Analysis of the moderating effect results

The moderating role of job crafting on the relationship between learned helplessness and career transition intentions was examined. As shown in Table 7, the coefficient of the interaction term of learned helplessness and job crafting on career transition intentions was -0.102 and significant (p = 0.002 < 0.01), suggesting that job crafting played a significant negative moderating role between learned helplessness and career transition intentions. In addition, the slope of low job crafting was larger than that of high job crafting, and the positive effect of learned helplessness on career transition intentions weakened as job crafting increased, suggesting that job crafting played a negative moderating role in the relationship between learned helplessness and career transition intentions. Therefore, H3 was supported.

We also examined the moderating roles played by learned helplessness and career transition intentions. As shown in Table 7, the coefficient of the interaction term of learned helplessness and career calling on career transition intentions was -0.140 and significant (p = 0.000 < 0.001), suggesting that career calling played a significant negative moderating role between learned helplessness and career transition intentions. As shown in Figure 3, the slope of low career calling was larger than that of high career calling, and the positive effect of learned helplessness on career transition intentions weakened as career calling increased, suggesting that career calling played a negative

moderating role between learned helplessness and career transition intentions. Therefore, H5 was supported.

A comparative analysis of the moderating effects of job crafting and career calling on learned helplessness and career transition intentions revealed that the difference between the two was not significant (p > 0.05). Thus, job crafting and career calling did not significantly differ in their moderating effects on learned helplessness and career transition intention.

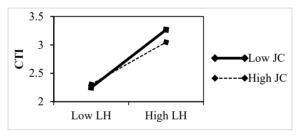
	Hypotheses paths	Effect	S.E.	t	р
Job crafting as a	LH-CTI	0.423	0.031	13.861	0.000
moderating variable	JC-CIT	-0.053	0.032	-1.672	0.095
	LH*JC-CTI (a)	-0.102	0.033	-3.062	0.002
Career calling as a	LH-CTI	0.439	0.03	14.526	0.000
moderating variable	CC-CTI	0.014	0.032	0.435	0.663
	LH*CC-CTI (b)	-0.140	0.034	-4.132	0.000
	Diff1 = a–b	0.050	0.042	1.182	0.237

 Table 7
 The moderated effects results table

Notes: LH – learned helplessness; CTI – career transition intentions; JC – job crafting; CC – career calling.

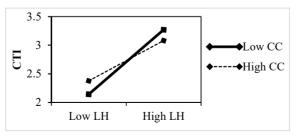
Source: Prepared by the author (2024)

Figure 2 Moderating effect of job crafting on learned helplessness and career transition intentions



Source: Prepared by the author (2024)

Figure 3 Moderating effect of career calling on learned helplessness and career transition intentions



Source: Prepared by the author (2024)

The moderating variable in this study was job crafting, which played the moderating role between perceived dirty work and career transition intentions. As shown in Table 8, the coefficient of the interaction term was -0.107 and significant (p = 0.002 < 0.01), indicating that job crafting played a significant negative moderating role between perceived dirty work and career transition intentions. As shown in Figure 4, the slope of low job crafting was larger than that of high job crafting. As job crafting increased, the positive impact of employees' perceived dirty work on career transition intention weakened, suggesting that job crafting played a negative moderating role between perceived dirty work and career transition intention. Therefore, H4 was supported.

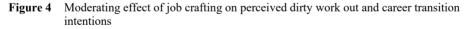
The moderating variable in this study was career calling, which played the moderating role between perceived dirty work and career transition intentions. As shown in Table 8, the coefficient of the interaction term was -0.114 and significant (p = 0.001 < 0.01), indicating that career calling played a significant negative moderating role between perceived dirty work and career transition intention. As shown in Figure 5, the slope of low career calling was larger than that of high career calling, and the positive impact of employees' perceived dirty work on career transition intention weakened with an increase in career calling, indicating that career calling played a negative moderating role between perceived dirty work and career transition intention. Therefore, hypothesis H6 was supported.

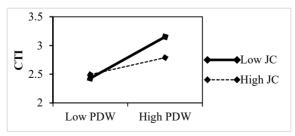
	Hypotheses paths	Effect	<i>S.E.</i>	t	р
Job crafting as a moderating variable	PDW-CTI	0.254	0.033	7.697	0.000
	JC-CIT	-0.074	0.033	-2.215	0.027
	PDW*JC-CTI (c)	-0.107	0.034	-3.143	0.002
Career calling as a	PDW-CTI	0.261	0.033	7.991	0.000
moderating variable	CC-CTI	0.044	0.033	1.31	0.190
	PDW*CC-CTI (d)	-0.114	0.034	-3.365	0.001
	Diff2 = c-d	0.008	0.036	0.221	0.825

 Table 8
 The moderated effects results table

Notes: PDW – perceived dirty work; CTI – career transition intentions; JC – job crafting; CC – career calling.

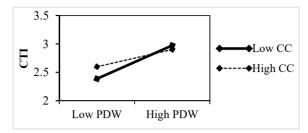
Source: Prepared by the author (2024)





Source: Prepared by the author (2024)

Figure 5 Moderating effect of career calling on perceived dirty work and career transition intentions



Source: Prepared by the author (2024)

A comparative analysis of the moderating effects of job crafting and career calling as moderating variables on perceived dirty work and career transition intention revealed that the difference in the moderating effects of the two was not significant (p > 0.05). Thus, job crafting and career calling did not differ significantly in their moderating impacts on perceived dirty work and career transition intention.

5.4 Analysis of the moderated mediation effect results

This study further explored the moderated mediation effect of job crafting, tested using the coefficient product method (Hayes, 2015). The results are shown in Table 9. The CIs for the indirect effects at both low and high job crafting levels excluded zero, indicating that the mediating effects were both significant. The mediation effect values were larger and more significant, with the CIs excluding 0, for low job crafting than high job crafting conditions. The moderated mediation effect value for job crafting was -0.006 (p < 0.01) and the CI did not contain 0, indicating that the moderated mediation effect was significant when job crafting was used as a moderator variable.

This study further explored the moderated mediation effect of career calling, which was tested using the coefficient product method (Hayes, 2015) and the results are shown in Table 10. The CIs for the indirect effects of both low and high career calling excluded zero, indicating that the mediating effects were both significant. The mediation effect values were larger and more significant, with the CIs excluding 0, for low career calling than under high career calling. The moderated mediation effect value of career calling was -0.059 (p < 0.001) and the CI did not contain zero, indicating that the moderated mediation effect was significant when career calling was used as the moderator variable.

Moderator variable	Effect	<i>S.E.</i>	t	р	LLCI	ULCL		
Low job crafting	0.103	0.018	5.869	0.000	0.069	0.138		
High job crafting	0.066	0.014	4.844	0.000	0.039	0.092		
Diff 3	-0.037	0.013	-2.945	0.003	-0.062	-0.013		
Moderated mediation effect								
Index1	-0.006	0.002	-2.893	0.004	-0.010	-0.002		

 Table 9
 The moderated mediation effect model 1

Source: Prepared by the author (2024)

Effect	S.E.	t	р	LLCI	ULCL			
0.131	0.022	6.074	0.000	0.089	0.173			
0.072	0.015	4.783	0.000	0.042	0.101			
-0.059	0.016	-3.773	0.000	-0.090	-0.029			
Moderated mediation effect								
-0.014	0.004	-3.712	0.000	-0.022	-0.007			
	0.131 0.072 -0.059	0.131 0.022 0.072 0.015 -0.059 0.016 Moderated m	0.131 0.022 6.074 0.072 0.015 4.783 -0.059 0.016 -3.773 Moderated mediation effect	0.131 0.022 6.074 0.000 0.072 0.015 4.783 0.000 -0.059 0.016 -3.773 0.000 Moderated mediation effect	0.131 0.022 6.074 0.000 0.089 0.072 0.015 4.783 0.000 0.042 -0.059 0.016 -3.773 0.000 -0.090 Moderated mediation effect			

 Table 10
 The moderated mediation effect model 2

Source: Prepared by the author (2024)

6 Conclusions and discussion

The paper draws the following four conclusions:

First, perceived dirty work tends to create career transition intention among employees. Due to their negative moods and perceptions, employees are prompted to develop career transition intentions as dirty work increases (Wildes, 2005; Schaubroeck et al., 2018). This study also shows that employees are prone to career transition intentions if they perceive dirty work.

Second, learned helplessness mediates between perceived dirty work and career transition intention. Perceived dirty work can cause learned helplessness in the workplace (Shepherd et al., 2022). Learned helplessness can make employees less satisfied with their jobs and increase their career transition intention (Kale and Aknar, 2020). Thus, perceived dirty work can create career transition intentions by increasing learned helplessness and thus, career transition intentions. This study expands the theoretical framework of perceived dirty work by highlighting the crucial role of learned helplessness in the relationship between perceived dirty work and career transition intentions, and broadens the perspective of affective event theory. This finding deepens the understanding of the psychological mechanisms of dirty work and provides new theoretical perspectives for future research.

Third, job crafting has a negative moderating effect. Job crafting can change perceptions, cause employees to retry their jobs according to their needs and goals when encountering setbacks, reduce negative behaviours caused by learned helplessness (Hornung, 2020), and reduce employees' career transition intentions. When job crafting is high, the effect of employees' learned helplessness on career transition intentions decreases; that is, job crafting negatively moderates learned helplessness and career transition intentions. Job crafting reconstructs employees' perceptions of work and changes their perceptions of work, job significance, and identity, reducing their perceived dirty work, and thus, career transition intentions (Wrzesniewski and Dutton, 2001; Niessen et al., 2016). When job crafting is high, the influence of employees' perceived dirty work on career transition intention is weakened, which negatively moderates between perceived dirty work and career transition intention. Job crafting is the process by which employees redesign their work enhance job meaning, engagement, and satisfaction (Wrzesniewski and Dutton, 2001). This study identified differences in the applicability of job crafting across occupational groups. For hotel cleaners and refuse handlers, whose work processes are generally highly structured and standardised, there is limited scope for job crafting (Wrzesniewski and Dutton, 2001). However, they may still redefine the meaning of their work and enhance their professional identity through cognitive crafting, for example, by viewing their work as 'improving environmental health and social well-being' rather than mere physical labour (Wong and Tetrick, 2017). They may also engage in relationship crafting by fostering closer relationships with co-workers or customers, thus enhancing job satisfaction and a sense of belonging (Tims and Bakker, 2010). In contrast, the work of real estate agents is inherently more flexible and autonomous, allowing them to more easily adapt their work through task crafting, such as changing the way they communicate with clients, adjusting their sales strategies, or developing new market segments, which can be key drivers of career development (Pletneva, 2024). Additionally, they can take the initiative to expand their networks, enhance client relationships, and achieve better career development. Therefore, in the real estate industry, job crafting is not only more feasible but also potentially more impactful in advancing career development. Postpartum care workers and bar dancers fall between these two types of occupations, while their work has some standardised elements, they enjoy considerable freedom in clients interactions. Consequently, they can tailor their work content to align more closely with their career goals and preferences by crafting their interactions, offering personalised services, and enhancing their emotional labour skills (Sanders, 2005; Hommelhoff et al., 2021). Therefore, when devising organisational management strategies, it is crucial for companies to provide differentiated career development support tailored to various occupational characteristics to foster employee engagement and career progression (Wrzesniewski et al., 2013). This finding further enriches research in this area by suggesting that even in dirty work occupations, individuals can still enhance their sense of occupational control through proactive job crafting.

Fourth, career calling has a negative moderating effect. A person with a career calling regards their career as highly meaningful and this reduces the negative impacts of perceived dirty work (Duffy et al., 2019). Employees with high career calling are satisfied with their current careers and jobs and less willing to change their careers, thus reducing their career transition intentions (Chen et al., 2018; Presbitero and Teng-Calleja, 2020). When career calling is high, the influence of employees' perceived dirty work on career transition intention is weakened, which negatively moderates between perceived dirty work and career transition intention. This finding broadens the development of related theories and further enriches research in the field by revealing that career calling can play a protective role, leading to a higher sense of professional identity among employees.

7 Implications

In terms of theoretical implications, this study enriches the theories on relevant aspects of job crafting and career transition calling. It also extends the scope of the theoretical application of job crafting and career transition calling by exploring their moderating role between perceived dirty work and career transition intentions. In addition, the study deepens our understanding of learned helplessness, which has been previously found to help employees develop career transition intentions (Yadav and Goyal, 2016; Rafiq et al., 2022). This study validates the mediating role of learned helplessness between perceived dirty work and career transition intentions, revealing how perceived dirty work affects employees' career transition intentions through learned helplessness. The results provide

organisational managers with new perspectives to prevent employees from falling into a state of learned helplessness. Finally, this study is the first to systematically explore the pathways through which perceived dirty work affects career transition intention, particularly at different levels of job crafting and calling. This result provides a new theoretical basis for the study of perceived dirty work and suggests that future research should explore other potential mediating and moderating variables to fully understand the multilevel impacts of perceived dirty work. Thus, this study not only expands the application of job crafting, career calling and learned helplessness, but also clarifies the role of all three in the mechanism in the relationship between perceived dirty work and career transition intentions. Specifically, by exploring the mediating effect of learned helplessness, and the moderating roles of job crafting and career calling in the influence of perceived dirty work on career transition intentions, the applicability of these theories are enhanced and fresh perspectives on perceived dirty work are introduced.

In terms of practical implications, the current findings help business managers pay attention to employee perceptions of the content of their work, especially those jobs that can easily be seen as dirty work, and to give more value and meaning to them by redesigning their work tasks. It also helps employers to relieve employees' possible learned helplessness promptly, communicate with them regularly, provide employees with psychological support and constructive feedback, and reduce employees' perceived dirty work. Reducing perceived dirty work is conducive to improving employees' motivation to work, maintaining occupational stability, and contributing to the stability of the enterprise. Guiding employees in job crafting, in which they find a sense of value, can lead to a reduced perception of dirty work as well as an increased sense of belonging and achievement (Zhang et al., 2021). It can also cultivate and stimulate employees' sense of career calling, improve their job satisfaction, enable them to find meaning in their work, reduce their career transition intentions, and enable them to better serve the enterprise, thus improving its performance and competitiveness. Conversely, from the employees' side, the current findings help them to actively identify dissatisfaction at work, especially when they perceive dirty work, and inspire them to actively seek job crafting. Public values and perceptions can be influenced by the values of social media (Lu et al., 2019), favouring employee perceptions of dirty work and contributing to increased empathy in society towards employees engaged in dirty work (Li et al., 2020). When jobs feel dirty, employees can proactively seek support from their leaders or colleagues, explore new opportunities for career development, and continuously improve their competence and work quality. Inspiring and enhancing their career calling and finding meaning in their work will alleviate feelings of learned helplessness, which, in turn, will reduce career transition intentions and better serve the business (Kale and Aknar, 2020). This research helps employees better adapt to their work environment, boosting career satisfaction and increasing career stability. It offers valuable strategic insights for both employees and organisations, fostering individual career development and long-term organisational success.

8 Research proposal

In terms of potential action steps, regular assessment and feedback mechanisms can be introduced. Companies should conduct regular assessments of how their employees feel about their work, especially regarding perceived dirty work. Management can maintain employees' psychological states and needs through regular employee satisfaction surveys and face-to-face feedback mechanisms (Coyne et al., 2017; Humphrey et al., 2024). These steps will help identify and address potential learned helplessness issues and prevent them from negatively impacting career transition intentions.

Second, personalised career development plans can be developed. Based on the role of job crafting in moderating between perceived dirty work and career transition intention, companies should provide employees with personalised career development plans. By identifying employees' interests, skills, and career goals, companies can develop personalised development paths that help them find meaning and value in their work (Dachner et al., 2021; Zaharee et al., 2018). Personalised career development not only increases employee motivation but also enhances employees' sense of belonging to the company, which in turn reduces career transition intentions. To reduce turnover rates and mitigate the costs associated with learning curves, companies should deepen their understanding of their employees and support their physical, mental, and career development. Personalised career development plans not only reinforce employees' sense of career calling – defined as an individual's sense of meaning, purpose, and belonging in their career – but also consider future career prospects, offering employees a vision of their potential future (Dobrow and Tosti-Kharas, 2012). Employees with a robust sense of career calling are more likely to proactively adjust their roles and optimise their work experiences through job crafting (Wrzesniewski and Dutton, 2001). Specifically, career calling can enhance individuals' job crafting behaviour by boosting their work motivation and commitment to their careers (Zhang et al., 2021b). In addition, implementing career development programs not only bolsters employees' loyalty to the organisation but also promotes proactive cognitive and relationship crafting by providing more developmental resources (e.g., training, skill acquisition) (Van Leeuwen et al., 2021). Therefore, a personalised career development plan not only reduces employees' willingness to change careers, but also improves their job crafting behaviours by enhancing their sense of career calling, enabling them to better adapt to the work environment, and enhancing job satisfaction and organisational belonging (Shen et al., 2021).

Third, positive psychological interventions should be implemented to enhance career calling. Given the potentially positive role of career calling in moderating between perceived dirty work and career transition intentions, companies can introduce positive psychology intervention programs to strengthen employees' career calling.

9 Research limitations and future directions

First, the sample was mainly drawn from specific industries or regions, which may limit the generalisability of the findings. Different cultural backgrounds and organisational environments may affect the relationships between the variables. Future research could expand the sample to include different industries, regions, and cultural backgrounds to validate and extend the findings of this study.

Second, the present research model examined the influence of employees' perceived dirty work on career transition intentions from the perspective of affective event theory, potentially ignoring other theoretical perspectives that might examine different effects on career transition intentions. Future studies should use different theories to examine the impacts of employees' perceived dirty work on career transition intentions. Third, this study focused primarily on psychological factors such as career transition intentions but may have overlooked the potential influence of other important organisational or individual factors. For example, factors such as perceptions of organisational support and leadership style may significantly impact career transition intentions (Wang and Xu, 2019; Naz et al., 2020). Future research can incorporate more organisational and individual factors as controls or independent variables.

Declarations

The authors declare no competing interests.

References

- Ahn, J., Dik, B.J. and Hornback, R. (2017) 'The experience of career change driven by a sense of calling: an interpretative phenomenological analysis approach', *Journal of Vocational Behavior*, Vol. 102, pp.48–62, https://doi.org/10.1016/j.jvb.2017.07.003.
- Anderson, J.C. and Gerbing, D.W. (1988) 'Structural equation modeling in practice: a review and recommended two-step approach', *Psychological Bulletin*, Vol. 103, No. 3, p.411, https://doi.org/10.1037/0033-2909.103.3.411.
- Armstrong, J.S. and Overton, T.S. (1977) 'Estimating nonresponse bias in mail surveys', *Journal of Marketing Research*, Vol. 14, No. 3, pp.396–402, https://doi.org/10.1177/ 002224377701400320.
- Ashforth, B., Kreiner, G.E., Clark, M.A. and Fugate, M. (2007) 'Normalizing dirty work: Managerial tactics for countering occupational taint', *Academy of Management Journal*, Vol. 50, No. 1, pp.149–174, https://doi.org/10.5465/amj.2007.24162092.
- Ashforth, B.E. and Kreiner, G.E. (1999) "How can you do it?": Dirty work and the challenge of constructing a positive identity, *Academy of Management Review*, Vol. 24, No. 3, pp.413–434, https://doi.org/10.5465/amr.1999.2202129.
- Ashforth, B.E. and Kreiner, G.E. (2014) 'Dirty work and dirtier work: differences in countering physical, social, and moral stigma', *Management and Organization Review*, Vol. 10, No. 1, pp.81–108, https://doi.org/10.1111/more.12044.
- Bakker, A.B. and Demerouti, E. (2014) 'Job demands-resources theory', *Wellbeing*, pp.1–28, https://doi.org/10.1002/9781118539415.wbwell019.
- Bentein, K., Garcia, A., Guerrero, S. and Herrbach, O. (2017) 'How does social isolation in a context of dirty work increase emotional exhaustion and inhibit work engagement? A process model', *Personnel Review*, Vol. 46, No. 8, pp.1620–1634, https://doi.org/10.1108/PR-09-2016-0227.
- Berkelaar, B.L., Buzzanell, P.M., Kisselburgh, L.G., Tan, W. and Shen, Y. (2012) "First, it's dirty. Second, it's dangerous. Third, it's insulting': urban Chinese children talk about dirty work', *Communication Monographs*, Vol. 79, No. 1, pp.93–114, https://doi.org/10.1080/03637751. 2011.646490.
- Bhatt, V., Thomas, S., Chauhan, D. and Patel, R. (2024) 'Investigating the impact of organisation culture, personal-job fit and employee engagement on turnover intention: an assessment of the IT sector from an emerging market perspective', *International Journal of Economics and Business Research*, Vol. 27, No. 2, pp.310–323, https://doi.org/10.1504/IJEBR.2024.136498.
- Bikos, L.H., Dykhouse, E.C., Boutin, S.K., Gowen, M.J. and Rodney, H.E. (2013) 'Practice and research in career counseling and development 2012', *The Career Development Quarterly*, Vol. 61, No. 4, pp.290–329, https://doi.org/10.1002/j.2161-0045.2013.00058.x.

- Bloom, M., Colbert, A.E. and Nielsen, J.D. (2021) 'Stories of calling: how called professionals construct narrative identities', *Administrative Science Quarterly*, Vol. 66, No. 2, pp.298–338, https://doi.org/10.1177/0001839220949502.
- Boehnlein, P. and Baum, M. (2022) 'Does job crafting always lead to employee well-being and performance? Meta-analytical evidence on the moderating role of societal culture', *The International Journal of Human Resource Management*, Vol. 33, No. 4, pp.647–685, https://doi.org/10.1080/09585192.2020.1737177.
- Bosmans, K., Hardonk, S., De Cuyper, N. and Vanroelen, C. (2016) 'Explaining the relation between precarious employment and mental well-being. A qualitative study among temporary agency workers', *Work*, Vol. 53, No. 2, pp.249–264, https://doi.org/10.3233/WOR-152136.
- Brashear, T.G., Manolis, C. and Brooks, C.M. (2005) 'The effects of control, trust, and justice on salesperson turnover', *Journal of Business Research*, Vol. 58, No. 3, pp.241–249, https://doi.org/10.1016/S0148-2963(03)00134-6.
- Braun, M., Naor, L., Hasson-Ohayon, I. and Goldzweig, G. (2022) 'Oncologists' locus of control, compassion fatigue, compassion satisfaction, and the mediating role of helplessness.', *Current Oncology*, Vol. 29, No. 3, pp.1634–1644, https://doi.org/10.3390/curroncol29030137.
- Bullinger, M., Alonso, J., Apolone, G., Leplège, A., Sullivan, M., Wood-Dauphinee, S., Gandek, B., Wagner, A., Aaronson, N., Bech, P., Fukuhara, B., Kaasa, S. and Ware Jr., J.E. (1998) 'Translating health status questionnaires and evaluating their quality: the IQOLA project approach', *Journal of Clinical Epidemiology*, Vol. 51, No. 11, pp.913–923, https://doi.org/10.1016/S0895-4356(98)00082-1.
- Bullough Jr., R.V. and Hall-Kenyon, K.M. (2012) 'On teacher hope, sense of calling, and commitment to teaching', *Teacher Education Quarterly*, Vol. 39, No. 2, pp.7–27 [online] http://link.gale.com/apps/doc/A318999935/AONE?u=anon~658fbab5&sid=googleScholar&xi d=1488c2b3 (accessed 26 March 2025),
- Cardador, M.T., Dane, E. and Pratt, M.G. (2011) 'Linking calling orientations to organizational attachment via organizational instrumentality', *Journal of Vocational Behavior*, Vol. 79, No. 2, pp.367–378, https://doi.org/10.1016/j.jvb.2011.03.009.
- Chen, J., May, D.R., Schwoerer, C.E. and Augelli, B. (2018) 'Exploring the boundaries of career calling: the moderating roles of procedural justice and psychological safety', *Journal of Career Development*, Vol. 45, No. 2, pp.103–116, https://doi.org/10.1177/ 0894845316671214.
- Clarke, M. and Ravenswood, K. (2019) 'Constructing a career identity in the aged care sector: overcoming the 'taint' of dirty work', *Personnel Review*, Vol. 48, No. 1, pp.76–97, https://doi.org/10.1108/PR-08-2017-0244.
- Coyne, I., Farley, S., Axtell, C., Sprigg, C., Best, L. and Kwok, O. (2017) 'Understanding the relationship between experiencing workplace cyberbullying, employee mental strain and job satisfaction: a dysempowerment approach', *The International Journal of Human Resource Management*, Vol. 28, No. 7, pp.945–972, https://doi.org/10.1080/09585192.2015.1116454.
- Cruz, J. (2015) 'Dirty work at the intersections of gender, class, and nation: Liberian market women in post-conflict times', *Women's Studies in Communication*, Vol. 38, No. 4, pp.421–439, https://doi.org/10.1080/07491409.2015.1087439.
- Dachner, A.M., Ellingson, J.E., Noe, R.A. and Saxton, B.M. (2021) 'The future of employee development', *Human Resource Management Review*, Vol. 31, No. 2, p.100732, https://doi.org/10.1016/j.hrmr.2019.100732.
- Davis, D.Y. (2022) The Dirty Workers Among Us: The Intervening Role of Job Crafting and the Moderating Role of Leader Member Exchange in the Evaluation of Self Determination & Work Engagement, Doctoral Dissertation, The University of Dallas, Elibrary [online] https://hdl.handle.net/20.500.14026/2061 (accessed 13 September 2022).
- De Vos, A., Jacobs, S. and Verbruggen, M. (2021) 'Career transitions and employability', *Journal of Vocational Behavior*, Vol. 126, p.103475, https://doi.org/10.1016/j.jvb.2020.103475.

- Deery, S., Kolar, D. and Walsh, J. (2019) 'Can dirty work be satisfying? A mixed method study of workers doing dirty jobs', *Work, Employment and Society*, Vol. 33, No. 4, pp.631–647, https://doi.org/10.1177/0950017018817307.
- Dik, B.J. and Duffy, R.D. (2009) 'Calling and vocation at work: definitions and prospects for research and practice', *The Counseling Psychologist*, Vol. 37, No. 3, pp.424–450, https://doi.org/10.1177/0011000008316430.
- Dik, B.J., Eldridge, B.M., Steger, M.F. and Duffy, R.D. (2012) 'Development and validation of the calling and vocation questionnaire (CVQ) and brief calling scale (BCS)', *Journal of Career Assessment*, Vol. 20, No. 3, pp.242–263, https://doi.org/10.1177/1069072711434410.
- Dobrow, S.R. and Tosti-Kharas, J. (2012) 'Listen to your heart? Calling and receptivity to career advice', *Journal of Career Assessment*, Vol. 20, No. 3, pp.264–280, https://doi.org/10.1177/ 1069072711434412.
- Duffy, R.D. and Dik, B.J. (2013) 'Research on calling: what have we learned and where are we going?', *Journal of Vocational Behavior*, Vol. 83, No. 3, pp.428–436, https://doi.org/ 10.1016/j.jvb.2013.06.006.
- Duffy, R.D., Allan, B.A. and Bott, E.M. (2012) 'Calling and life satisfaction among undergraduate students: investigating mediators and moderators', *Journal of Happiness Studies*, Vol. 13, pp.469–479, https://doi.org/10.1007/s10902-011-9274-6.
- Duffy, R.D., Dik, B.J. and Steger, M.F. (2011) 'Calling and work-related outcomes: career commitment as a mediator', *Journal of Vocational Behavior*, Vol. 78, No. 2, pp.210–218, https://doi.org/10.1016/j.jvb.2010.09.013.
- Duffy, R.D., Douglass, R.P., Gensmer, N.P., England, J.W. and Kim, H.J. (2019) 'An initial examination of the work as calling theory', *Journal of Counseling Psychology*, Vol. 66, No. 3, p.328, https://doi.org/10.1037/cou0000318.
- Eastman, K.L., Eastman, J.K. and Eastman, A.D. (1996) 'The ethics of insurance professionals: comparison of personal versus professional ethics', *Journal of Business Ethics*, Vol. 15, pp.951–962, https://doi.org/10.1007/BF00705575.
- Esteves, T. and Lopes, M.P. (2017) 'Crafting a calling: the mediating role of calling between challenging job demands and turnover intention', *Journal of Career Development*, Vol. 44, No. 1, pp.34–48, https://doi.org/10.1177/0894845316633789.
- Feng, X. and Chen, S.T. (2024) 'Nirvana rebirth, the impact of dynamic absorptive capacity and resource bricolage on dual innovation, and on the interference of improvisation', *International Journal of Economics and Business Research*, Vol. 27, No. 2, pp.324–349, https://doi.org/ 10.1504/IJEBR.2024.136534.
- Ferraro, H.S., Prussia, G. and Mehrotra, S. (2018) 'The impact of age norms on career transition intentions', *Career Development International*, Vol. 23, No. 2, pp.212–229, https://doi.org/ 10.1108/CDI-06-2017-0110.
- Flickinger, M., Allscher, M. and Fiedler, M. (2016) 'The mediating role of leader-member exchange: a study of job satisfaction and turnover intentions in temporary work', *Human Resource Management Journal*, Vol. 26, No. 1, pp.46–62, https://doi.org/10.1111/1748-8583.12091.
- Fuller, A. and Unwin, L. (2017) 'Job crafting and identity in low-grade work: how hospital porters redefine the value of their work and expertise', *Vocations and Learning*, Vol. 10, No. 3, pp.307–324, https://doi.org/10.1007/s12186-017-9173-z.
- Furst, R.T. and Evans, D.N. (2017) 'Renting apartments to felons: variations in real estate agent decisions due to stigma', *Deviant Behavior*, Vol. 38, No. 6, pp.698–708, https://doi.org/ 10.1080/01639625.2016.1197635.
- Goffman, E. (1963) Stigma: Notes on the Management of Spoiled Identity, Touchstone, London, UK.
- Grandy, G. (2008) 'Managing spoiled identities: dirty workers' struggles for a favourable sense of self', *Qualitative Research in Organizations and Management: An International Journal*, Vol. 3, No. 3, pp.176–198, https://doi.org/10.1108/17465640810920278.

- Greene, A.M. and Robbins, M. (2015) 'The cost of a calling? Clergywomen and work in the church of England', *Gender, Work & Organization*, Vol. 22, No. 4, pp.405–420, https://doi.org/ 10.1111/gwao.12101.
- Harman, H.H. (1976) Modern Factor Analysis, University of Chicago Press, Chicago, USA.
- Hayes, A.F. (2015) 'An index and test of linear moderated mediation', *Multivariate Behavioral Research*, Vol. 50, No. 1, pp.1–22, https://doi.org/10.1080/00273171.2014.962683.
- Hendarti, R., Wibowo, R.P. and Maas, L.T. (2021) 'The effect of job insecurity on job performance and absenteeism with job satisfaction and commitment organizational as intervening variables (Study on PT Nusa Pusaka Kencana)', *International Journal of Research and Review*, Vol. 8, No. 1, pp.368–377, https://doi.org/10.4444/ijrr.1002/2589.
- Hommelhoff, S., Weseler, D. and Niessen, C. (2021) 'The role of cognitive job crafting in the relationship between turnover intentions, negative affect, and task mastery', *Anxiety, Stress, & Coping*, Vol. 34, No. 6, pp.704–718, https://doi.org/10.1080/10615806.2021.1892653.
- Hong, Y., Qiu, M., Liu, L., Huang, F., Wang, K. and Lin, R. (2023) 'Surface acting, emotional exhaustion, career calling and turnover intention among student nurses: a cross-sectional study', *Nurse Education in Practice*, Vol. 69, p.103641, https://doi.org/10.1016/j.nepr. 2023.103641.
- Hornung, S. (2020) 'Changing the situation or changing oneself? A model of task and cognitive job crafting', *Eurasian Business Perspectives*, Vol. 3, https://doi.org/10.1007/978-3-030-35051-2_1.
- Hu, L.T. and Bentler, P.M. (1999) 'Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives', *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6, No. 1, pp.1–55, https://doi.org/10.1080/ 10705519909540118.
- Huang, W., Wang, D., Pi, X. and Hewlin, P.F. (2022) 'Does coworkers' upward mobility affect employees' turnover intention? The roles of perceived employability and prior job similarity', *The International Journal of Human Resource Management*, Vol. 33, No. 12, pp.2442–2472, https://doi.org/10.1080/09585192.2020.1861058.
- Humphrey, N.M., DeHart-Davis, L., Hassan, S., Hatmaker, D.M. and Smith, A. (2024) 'Does workplace inclusion mitigate emotional exhaustion? Evidence from local government organizations', *Public Management Review*, pp.1–29, https://doi.org/10.1080/14719037. 2024.2393627.
- Kale, E. and Aknar, A. (2020) 'The effects of attributional style on job satisfaction, job performance, and turnover intention: the case of hotel employees', *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi*, Vol. 8, No. 2, pp.523–531, https://doi.org/10.18506/ anemon.599611.
- Kim, H., Im, J., Qu, H. and NamKoong, J. (2018) 'Antecedent and consequences of job crafting: an organizational level approach', *International Journal of Contemporary Hospitality Management*, Vol. 30, No. 3, pp.1863–1881, https://doi.org/10.1108/IJCHM-01-2017-0040.
- Kish-Gephart, J.J., Moergen, K.J., Tilton, J.D. and Gray, B. (2023) 'Social class and work: a review and organizing framework', *Journal of Management*, Vol. 49, No. 1, pp.509–565, https://doi.org/10.1177/01492063221076822.
- Koc, E. and Bozkurt, G.A. (2017) 'Hospitality employees' future expectations: dissatisfaction, stress, and burnout', *International Journal of Hospitality & Tourism Administration*, Vol. 18, No. 4, pp.459–473, https://doi.org/10.1080/15256480.2017.1305318.
- Kreiner, G., Mihelcic, C.A. and Mikolon, S. (2022) 'Stigmatized work and stigmatized workers', *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 9, No. 1, pp.95–120, https://doi.org/10.1146/annurev-orgpsych-012420-091423.
- Kreiner, G.E., Ashforth, B.E. and Sluss, D.M. (2006) 'Identity dynamics in occupational dirty work: integrating social identity and system justification perspectives', *Organization Science*, Vol. 17, No. 5, pp.619–636, https://doi.org/10.1287/orsc.1060.0208.

- Lai, J.Y., Chan, K.W. and Lam, L.W. (2013) 'Defining who you are not: the roles of moral dirtiness and occupational and organizational disidentification in affecting casino employee turnover intention', *Journal of Business Research*, Vol. 66, No. 9, pp.1659–1666, https://doi.org/10.1016/j.jbusres.2012.12.012.
- Laurence, G.A. (2010) Workaholism and Expansion and Contraction Oriented Job Crafting: The Moderating Effects of Individual and Contextual Factors, Doctoral dissertation, Syracuse University, ProQuest, Syracuse, New York, USA online] https://www.proquest.com/ docview/763183102?sourcetype=Dissertations%20&%20Theses (accessed 16 April 2025).
- Lee, B., An, S. and Suh, J. (2021) 'How do tourists with disabilities respond to service failure? An application of affective events theory', *Tourism Management Perspectives*, Vol. 38, p.100806, https://doi.org/10.1016/j.tmp.2021.100806.
- Lei, M. and Lomax, R.G. (2005) 'The effect of varying degrees of nonnormality in structural equation modeling', *Structural Equation Modeling*, Vol. 12, No. 1, pp.1–27, https://doi.org/ 10.1207/s15328007sem1201_1.
- Léné, A. (2019) 'Job satisfaction and bad jobs: why are cleaners so happy at work?', Work, Employment and Society, Vol. 33, No. 4, pp.666–681, https://doi.org/10.1177/ 0950017019828904.
- Li, F., Jiao, R., Lin, X. and Liu, L. (2024) 'Interactive effects of basic psychological need satisfaction and frustration on career calling among Chinese kindergarten teachers: a person-centered approach', *Current Psychology*, Vol. 43, No. 2, pp.1638–1650, https://doi.org/10.1007/s12144-023-04391-w.
- Li, Y., Liu, B., Zhang, R. and Huan, T.C. (2020) 'News information and tour guide occupational stigma: insights from the stereotype content model', *Tourism Management Perspectives*, Vol. 35, p.100711, https://doi.org/10.1016/j.tmp.2020.100711.
- Link, B.G. and Phelan, J.C. (2001) 'Conceptualizing stigma', Annual Review of Sociology, Vol. 27, No. 1, pp.363–385, https://doi.org/10.1146/annurev.soc.27.1.363.
- Lopina, E.C., Rogelberg, S.G. and Howell, B. (2012) 'Turnover in dirty work occupations: a focus on pre-entry individual characteristics', *Journal of Occupational and Organizational Psychology*, Vol. 85, No. 2, pp.396–406, https://doi.org/10.1111/j.2044-8325.2011.02037.x.
- Lu, Q., Mihalik, B.J., Heere, B., Meng, F. and Fairchild, A. (2019) 'Media effect on resident attitudes toward an Olympic bid', *Tourism Management Perspectives*, Vol. 29, pp.66–75, https://doi.org/10.1016/j.tmp.2018.10.009.
- Lv, X., Zhang, K., Liu, Y., Wang, C. and Wang, Y. (2023) 'Why Chinese hospitality management undergraduates give up a hotel career: the effects of perceived occupational stigma and perceived work dirtiness', *Current Issues in Tourism*, Vol. 26, No. 17, pp.2863–2882, https://doi.org/10.1080/13683500.2022.2101437.
- Maier, S.F. and Seligman, M.E. (1976) 'Learned helplessness: theory and evidence', *Journal of Experimental Psychology: General*, Vol. 105, No. 1, p.3, https://doi.org/10.1037/0096-3445.105.1.3.
- McGinley, S.P. (2018) 'Shifting patterns: how satisfaction alters career change intentions', *International Journal of Hospitality Management*, Vol. 74, pp.202–213, https://doi.org/ 10.1016/j.ijhm.2018.05.003.
- Mejia, C., Pittman, R., Beltramo, J.M., Horan, K., Grinley, A. and Shoss, M.K. (2021) 'Stigma & dirty work: in-group and out-group perceptions of essential service workers during COVID-19', *International Journal of Hospitality Management*, Vol. 93, p.102772, https://doi.org/10.1016/j.ijhm.2020.102772.
- Moreland, J.J., Ewoldsen, D.R., Albert, N.M., Kosicki, G.M. and Clayton, M.F. (2015) 'Predicting nurses' turnover: the aversive effects of decreased identity, poor interpersonal communication, and learned helplessness', *Journal of Health Communication*, Vol. 20, No. 10, pp.1155–1165, https://doi.org/10.1080/10810730.2015.1018589.

- Naz, S., Li, C., Nisar, Q.A., Khan, M.A.S., Ahmad, N. and Anwar, F. (2020) 'A study in the relationship between supportive work environment and employee retention: role of organizational commitment and person-organization fit as mediators'; *Sage Open*, Vol. 10, No. 2, p.2158244020924694, https://doi.org/10.1177/2158244020924694.
- Nazari, Z.S., Hassani, M., Ghaleei, A.R. and Kazemzade Beytali, M. (2017) 'Relationship between perception of organi-zational politics with turnover intentions, job performance, and organization citizenship behavior: test the mediating role of organizational justice', *Journal of Rehabilitation*, Vol. 17, No. 4, pp.338–349, https://dx.doi.org/10.21859/jrehab-1704338.
- Niessen, C., Weseler, D. and Kostova, P. (2016) 'When and why do individuals craft their jobs? The role of individual motivation and work characteristics for job crafting', *Human Relations*, Vol. 69, No. 6, pp.1287–1313, https://doi.org/10.1177/0018726715610642.
- Nimon, K., Shuck, B., Fulmore, J. and Zigarmi, D. (2023) 'Testing the redundancy between work engagement and job attitudes: a replication and extension of the affective events theory in human resource development', *Human Resource Development Quarterly*, Vol. 34, No. 1, pp.75–90, https://doi.org/10.1002/hrdq.21464.
- Ostaszkiewicz, J., O'Connell, B. and Dunning, T. (2016) "We just do the dirty work': dealing with incontinence, courtesy stigma and the low occupational status of carework in long-term aged care facilities', *Journal of Clinical Nursing*, Vol. 25, Nos. 17–18, pp.2528–2541, https://doi.org/10.1111/jocn.13292.
- Petriglieri, J.L. (2011) 'Under threat: responses to and the consequences of threats to individuals' identities', Academy of Management Review, Vol. 36, No. 4, pp.641–662, https://doi.org/ 10.5465/amr.2009.0087.
- Pinel, E.C. and Paulin, N. (2005) 'Stigma consciousness at work', *Basic and Applied Social Psychology*, Vol. 27, No. 4, pp.345–352, https://doi.org/10.1207/s15324834basp2704_7.
- Pletneva, L. (2024) 'Turning work into a refuge: job crafting as coping with personal, grief-inducing events', *Academy of Management Journal*, Vol. 67, No. 4, pp.1055–1083, https://doi.org/10.5465/amj.2022.0604.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003) 'Common method biases in behavioral research: a critical review of the literature and recommended remedies', *Journal* of Applied Psychology, Vol. 88, No. 5, p.879, https://doi.org/10.1037/0021-9010.88.5.879.
- Presbitero, A. and Teng-Calleja, M. (2020) 'Employee intention to stay in an organization: Examining the role of calling and perceived supervisor support through the theoretical lens of work as calling', *Journal of Career Assessment*, Vol. 28, No. 2, pp.320–336, https://doi.org/10.1177/1069072719858389.
- Rabelo, V.C. and Mahalingam, R. (2019) "They really don't want to see us': how cleaners experience invisible 'dirty' work', *Journal of Vocational Behavior*, Vol. 113, pp.103–114, https://doi.org/10.1016/j.jvb.2018.10.010.
- Rafiq, M., Shahzad, F., Farrukh, M. and Khan, I. (2022) 'The psychological mechanism linking life satisfaction and turnover intention among healthcare workers during the COVID-19 pandemic', *Work*, Vol. 71, No. 3, pp.505–514, https://doi.org/10.3233/WOR-210995.
- Rawat, A. and Nadavulakere, S. (2015) 'Examining the outcomes of having a calling: does context matter?', *Journal of Business and Psychology*, Vol. 30, pp.499–512, https://doi.org/10.1016/ j.sbspro.2010.07.283.
- Roskams, M. and Haynes, B. (2021) 'Environmental demands and resources: a framework for understanding the physical environment for work', *Facilities*, Vol. 39, Nos. 9–10, pp.652–666, https://doi.org/10.1108/F-07-2020-0090.
- Sa, Z. and Liu, J. (2022) 'Making an invisible care workforce visible: a survey of domestic workers in three cities in China', *China Population and Development Studies*, Vol. 6, No. 1, pp.95–113, https://doi.org/10.1007/s42379-022-00104-1.
- Salleh, A.M.M., Omar, K., Aburumman, O.J., Mat, N.H.N. and Almhairat, M.A. (2020) 'The impact of career planning and career satisfaction on employee's turnover intention', *Entrepreneurship and Sustainability Issues*, Vol. 8, No. 1, p.218, http://doi.org/10.9770/jesi. 2020.8.1(14).

- Sanders, T. (2005) "It's just acting': sex workers' strategies for capitalizing on sexuality', *Gender, Work & Organization*, Vol. 12, No. 4, pp.319–342, https://doi.org/10.1111/j.1468-0432.2005.00276.x.
- Schaubroeck, J.M., Lam, L.W., Lai, J.Y., Lennard, A.C., Peng, A.C. and Chan, K.W. (2018) 'Changing experiences of work dirtiness, occupational disidentification, and employee withdrawal', *Journal of Applied Psychology*, Vol. 103, No. 10, p.1086, https://doi.org/ 10.1037/apl0000330.
- Shantz, A. and Booth, J.E. (2014) 'Service employees and self-verification: the roles of occupational stigma consciousness and core self-evaluations', *Human Relations*, Vol. 67, No. 12, pp.1439–1465, https://doi.org/10.1177/0018726713519280.
- Sharma, D., Ghosh, K., Mishra, M. and Anand, S. (2022) 'You stay home, but we can't: invisible 'dirty' work as calling amid COVID-19 pandemic', *Journal of Vocational Behavior*, Vol. 132, p.103667, https://doi.org/10.1016/j.jvb.2021.103667.
- Shava, H. and Chinyamurindi, W.T. (2019) 'The influence of psychological competencies on the willingness of employees involved in dirty work to become entrepreneurs', *Journal of Contemporary Management*, Vol. 16, No. 2, pp.430–458, https://hdl.handle.net/10520/EJC-19644b43bd.
- Shen, X., Gu, X., Chen, H. and Wen, Y. (2021) 'For the future sustainable career development of college students: exploring the impact of core self-evaluation and career calling on career decision-making difficulty', *Sustainability*, Vol. 13, No. 12, p.6817, https://doi.org/10.3390/ su13126817.
- Shepherd, D.A. and Williams, T.A. (2018) 'Hitting rock bottom after job loss: bouncing back to create a new positive work identity', *Academy of Management Review*, Vol. 43, No. 1, pp.28–49, https://doi.org/10.5465/amr.2015.0102.
- Shepherd, D.A., Maitlis, S., Parida, V., Wincent, J. and Lawrence, T.B. (2022) 'Intersectionality in intractable dirty work: how Mumbai ragpickers make meaning of their work and lives', *Academy of Management Journal*, Vol. 65, No. 5, pp.1680–1708, https://doi.org/10.5465/ amj.2019.0125.
- Shin, Y., Hur, W.M., Park, K. and Hwang, H. (2020) 'How managers' job crafting reduces turnover intention: the mediating roles of role ambiguity and emotional exhaustion', *International Journal of Environmental Research and Public Health*, Vol. 17, No. 11, p.3972, https://doi.org/10.3390/ijerph17113972.
- Slemp, G.R. (2016) 'Job crafting', in Lindsay, G., Michael, F.O., Antonella, D.F.S. and Passmore, J. (Eds.): The Wiley Blackwell Handbook of the Psychology of Positivity and Strengths-Based Approaches at Work, pp.342–365, Wiley.
- Smallheer, B.A. and Dietrich, M.S. (2019) 'Social support, self-efficacy, and helplessness following myocardial infarctions', *Critical Care Nursing Quarterly*, Vol. 42, No. 3, pp.246–255, https://doi.org/10.1097/CNQ.00000000000265,
- Sorrenti, L., Filippello, P., Costa, S. and Buzzai, C. (2015) 'A psychometric examination of the learned helplessness questionnaire in a sample of Italian school students', *Psychology in the Schools*, Vol. 52, No. 9, pp.923–941, https://doi.org/10.1002/pits.21867.
- Sparr, J.L. and Sonnentag, S. (2008) 'Feedback environment and well-being at work: the mediating role of personal control and feelings of helplessness', *European Journal of Work and Organizational Psychology*, Vol. 17, No. 3, pp.388–412, https://doi.org/10.1080/ 13594320802077146.
- Stacey, C.L. (2005) 'Finding dignity in dirty work: the constraints and rewards of low-wage home care labour', *Sociology of Health & Illness*, Vol. 27, No. 6, pp.831–854, https://doi.org/ 10.1111/j.1467-9566.2005.00476.x.
- Sudman, S. (1976) Applied Sampling, Academic Press, New York.
- Supeli, A. and Creed, P.A. (2016) 'The longitudinal relationship between protean career orientation and job satisfaction, organizational commitment, and intention-to-quit', *Journal of Career Development*, Vol. 43, No. 1, pp.66–80, https://doi.org/10.1177/0894845315581686.

- Tayfur, O., Bayhan K.P. and Metin C.S. (2013) 'The mediating effects of emotional exhaustion cynicism and learned helplessness on organizational justice-turnover intentions linkage', *International Journal of Stress Management*, Vol. 20, No. 3, p.193, https://doi.org/ 10.1037/a0033938.
- Tims, M. and Bakker, A.B. (2010) 'Job crafting: towards a new model of individual job redesign', SA Journal of Industrial Psychology, Vol. 36, No. 2, pp.1–9, https://doi.org/10.4102/ sajip.v36i2.841.
- Tu, J., Mei, X. and Fang, C. (2021) 'Indispensable outsiders: a qualitative study of the working experiences of hospital care workers in China', *Journal of Nursing Management*, Vol. 29, No. 2, pp.268–276, https://doi.org/10.1111/jonm.13149.
- Tyagi, A., Mishra, G. and Ansari, A.H. (2023) 'The mediating role of organisation engagement and job engagement in the relationship between job satisfaction and turnover intention: a study in service organisations';, *International Journal of Economics and Business Research*, Vol. 25, No. 2, pp.229–248, https://doi.org/10.1504/IJEBR.2023.127944.
- Van Leeuwen, E.H., Taris, T.W., Van den Heuvel, M., Knies, E., Van Rensen, E.L. and Lammers, J.W.J. (2021) 'A career crafting training program: results of an intervention study', *Frontiers in Psychology*, Vol. 12, p.664453, https://doi.org/10.3389/fpsyg.2021.664453.
- Wang, H.J., Chen, X. and Lu, C.Q. (2020) 'When career dissatisfaction leads to employee job crafting: the role of job social support and occupational self-efficacy', *Career Development International*, Vol. 25, No. 4, pp.337–354, https://doi.org/10.1108/CDI-03-2019-0069.
- Wang, Z. and Xu, H. (2019) 'When and for whom ethical leadership is more effective in eliciting work meaningfulness and positive attitudes: the moderating roles of core self-evaluation and perceived organizational support', *Journal of Business Ethics*, Vol. 156, pp.919–940, https://doi.org/10.1007/s10551-017-3563-x.
- Weiss, H.M. and Cropanzano, R. (1996) 'Affective events theory', *Research in Organizational Behavior*, Vol. 18, No. 1, pp.1–74, https://psycnet.apa.org/record/1996-98665-001.
- Wen, D., Yan, D. and Sun, X. (2022) 'Employee satisfaction, employee engagement and turnover intention: the moderating role of position level', *Human Systems Management*, Vol. 41, No. 3, pp.407–422, https://doi.org/10.3233/HSM-211505.
- Wildes, V.J. (2005) 'Stigma in food service work: how it affects restaurant servers' intention to stay in the business or recommend a job to another', *Tourism and Hospitality Research*, Vol. 5, No. 3, pp.213–233, https://doi.org/10.1057/palgrave.thr.6040022.
- Winters, J.P., Owens, F. and Winters, E. (2022) 'Dirty work: well-intentioned mental health workers cannot ameliorate harms in offshore detention', *Journal of Medical Ethics*, Vol. 49, pp.563–568, https://doi.org/10.1136/jme-2022-108348.
- Wong, C.M. and Tetrick, L.E. (2017) 'Job crafting: older workers' mechanism for maintaining person-job fit', *Frontiers in Psychology*, Vol. 8, p.1548, https://doi.org/10.3389/fpsyg.2017. 01548.
- Wrzesniewski, A. and Dutton, J.E. (2001) 'Crafting a job: revisioning employees as active crafters of their work', *Academy of Management Review*, Vol. 26, No. 2, pp.179–201, https://doi.org/ 10.5465/amr.2001.4378011.
- Wrzesniewski, A., LoBuglio, N., Dutton, J.E. and Berg, J.M. (2013) 'Job crafting and cultivating positive meaning and identity in work', in *Advances in Positive Organizational Psychology*, Vol. 1, pp.281–302, https://doi.org/10.1108/S2046-410X(2013)0000001015.
- Wrzesniewski, A., McCauley, C., Rozin, P. and Schwartz, B. (1997) 'Jobs, careers, and callings: people's relations to their work', *Journal of Research in Personality*, Vol. 31, No. 1, pp.21–33, https://doi.org/10.1006/jrpe.1997.2162.
- Wu, M.L. (2010) Questionnaire Statistical Analysis Practice: SPSS Operation and Application, in Chinese, Chongqing University Press, China.
- Yadav, A. and Goyal, S. (2016) 'Relationship between employee turnover intent and learned helplessness: a study of research gap', *Asian Journal of Management*, Vol. 7, No. 4, pp.281–268, https://doi.org/10.5958/2321–5763.2016.00043.3.

- Yang, Y., Zhou, Y., Peng, S. and Li, H. (2023) 'Occupational self-efficacy, job crafting and job satisfaction in newcomer socialization: a moderated mediation model', *Journal of Managerial Psychology*, Vol. 38, No. 2, pp.131–143, https://doi.org/10.1108/JMP-04-2022-0183.
- Zaharee, M., Lipkie, T., Mehlman, S.K. and Neylon, S.K. (2018) 'Recruitment and retention of early-career technical talent: what young employees want from employers a study of the workplace attributes that attract early-career workers suggests that millennials may not be so different from earlier generations', *Research-Technology Management*, Vol. 61, No. 5, pp.51–61, https://doi.org/10.1080/08956308.2018.1495966.
- Zhang, I.D., Lam, L.W., Dong, L. and Zhu, J.N. (2021a) 'Can job-embedded employees be satisfied? The role of job crafting and goal-striving orientations', *Journal of Business and Psychology*, Vol. 36, pp.435–447, https://doi.org/10.1007/s10869-020-09684-6.
- Zhang, Z., Zhang, Y. and Jia, M. (2021b) 'Does a sense of calling facilitate sustainability? Research on the influence of calling on employee green behavior', *Business Strategy and the Environment*, Vol. 30, No. 7, pp.3145–3159, https://doi.org/10.1002/bse.2795.
- Zhang, Y., Kuang, D., Zhang, B., Liu, Y., Ren, J., Chen, L., Ning, L., Xie X. and Han, J. (2023) 'Association between hopelessness and job burnout among Chinese nurses during the COVID-19 epidemic: the mediating role of career calling and the moderating role of social isolation', *Heliyon*, Vol. 9, No. 6, https://doi.org/10.1016/j.heliyon.2023.e16898.
- Zulfiqar, G. and Prasad, A. (2022) 'How is social inequality maintained in the Global South? Critiquing the concept of dirty work', *Human Relations*, Vol. 75, No. 11, pp.2160–2186, https://doi.org/10.1177/00187267221097937.