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A scoping review of research on the turnover intention of military personnel in Taiwan

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Abstract: This review aims to determine the scope of existing literature, summarise key findings and identify gaps for future research. Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines, this scoping review initially identified 346 studies on the turnover intention of military personnel in Taiwan. After applying the inclusion and exclusion criteria, 17 studies were ultimately included in the final analysis. Findings indicate that psychological factors, such as job stress and job satisfaction, play a crucial role in military personnel's intention to leave. Additionally, work environment factors significantly predict turnover intention beyond psychological factors, as they contribute to the fulfilment of basic psychological needs. However, personal characteristics show inconsistent effects. The practical implications suggest that reducing turnover intention among military personnel requires fostering adaptive internal states through need-satisfying work environments. Addressing work-related stressors and enhancing job satisfaction could help mitigate turnover risks. Although turnover intention is widely studied in industrial and organisational psychology, it remains understudied in military contexts. As a result, the key antecedents of turnover intention among military personnel, as well as the mechanisms underlying these relationships, remain largely unknown. This scoping review contributes to bridging this gap by synthesising existing findings and offering a foundation for future research on military turnover intention.

Keywords: military personnel, turnover, psychology, work environment, personal characteristics

1 Introduction

In today's dynamic international landscape, Taiwan's geopolitical position presents distinct security challenges (Bukhari et al. 2024). Situated in the Indo-Pacific region, Taiwan finds itself between two dominant global powers—the United States and China—whose interactions profoundly influence its security policies and defence strategies (Lin 2024). Taiwan's proximity to China, which asserts territorial claims over the island, exacerbates the security dilemma (Lin 2022). Furthermore, Taiwan is at the heart of escalating tensions between the U.S. and China, particularly in areas like the semiconductor industry and the ongoing trade dispute (Hsieh 2020; Shattuck 2021). China's persistent refusal to renounce the use of military force for reunification, coupled with its ambitious military modernisation efforts, including the development of anti-access/area denial (A2/AD) capabilities to thwart U.S. intervention, poses significant military threats to Taiwan (Dobija 2021; Mastro 2021; Wei 2022). In light of these complex geopolitical dynamics, Taiwan must continuously adjust its defence strategies to safeguard national security.

The evolving cross-strait relations have been marked by differing stances on the '1992 Consensus'. Under President Ying-jeou Ma, Taiwan recognised the '1992 Consensus' as the political foundation for relations with China. However, his successor, President Ing-wen Tsai, did not acknowledge its existence, viewing it as synonymous with the 'One China' principle, which could eventually lead to the implementation of 'one country, two systems' in Taiwan (Chen and Cohen 2019). This denial of the consensus has provoked strong reactions from China, particularly following U.S. Speaker Nancy Pelosi's historic visit to Taiwan in 2022 (Glaser 2022). In response, China conducted a series of military exercises, including live-fire drills, encircling Taiwan for 3 days, significantly escalating tensions in the region (Chen et al. 2025). This growing military threat, compounded by the Taiwanese government's decision to extend mandatory military service from 4 months to 1

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year, has made the role and responsibilities of Taiwan's armed forces more critical than ever (Diamond and Ellis 2023; Hu and Meng 2023). Consequently, the overall combat effectiveness of the armed forces directly impacts Taiwan's security and future development (Dotson 2023).

However, the military pension reform implemented in 2018 sparked widespread public discussion and concern (Schubert 2017). This reform, aimed at adjusting retirement benefits for military personnel, has significant implications for their long-term career planning, causing some to question their future in the military and affecting their willingness to stay (Hsu 2019). Furthermore, after the Legislative Yuan approved the Act of Military Service for Volunteer Enlisted Soldiers (2022), a system primarily based on volunteer service was established. Hence, how to retain volunteer enlisted soldiers once they are recruited has become a critical issue for the Taiwanese government. At the same time, the military profession faces a certain degree of social prejudice and misunderstanding, which significantly affects the social status and attractiveness of military careers (Ho 2017). The general public often has a limited understanding of the roles and responsibilities that military personnel undertake and imposes excessively high standards and expectations on their behaviour and performance. This situation may not only put pressure on active-duty military personnel but also affect their intention to stay. Accordingly, gaining a comprehensive understanding of the factors that may influence military personnel's intention to leave is essential for developing effective policies aimed at encouraging their long-term commitment. Against this backdrop, the current study aims to review the existing knowledge base on the turnover intention among military personnel in Taiwan, identify critical antecedents, and provide practical implications for military retention.

2 Literature review

2.1 Turnover in organisations

Turnover intention can be defined as 'employees' awareness or thoughts about leaving the job' (Park and Min 2020, p. 2). Meta-analysis has shown that intention is a critical causal antecedent of actual behaviour (Hagger et al. 2023). Hence, studying turnover intention is of paramount importance, as it may become too late to prevent the consequences of individuals leaving an organisation once they have made their decision. The leaving of employees can result in increased personnel, recruitment

and training costs, while also indirectly impacting team dynamics (Ongori 2007). The weighted median cost of turnover was estimated to be \$71,613—approximately 1.45 times the annual median household income in the United States in 2010—and was associated with several adverse effects on remaining employees, including understaffing, increased workload and elevated stress levels (Patterson et al. 2010; DeNavas-Walt et al. 2011). Yarbrough et al. (2017) also reported that staff turnover has a huge financial impact on an organisation. The cost of each lost staff member is estimated to be between \$44,380 and \$63,400, and each organisation may face financial losses of up to \$6,020,000 per year, including recruitment, training costs and reduced productivity during the adaptation period of new personnel. Furthermore, the departure of employees is likely to lead to lost knowledge and intellectual assets and, hence, negatively influences the competitiveness of an organisation (Alshanbri et al. 2015).

Scholars typically categorise turnover into two main types: broad and narrow. The broad definition encompasses all forms of labour mobility, such as changes in geographical location, occupation and industry within an organisation, as outlined by Huang (2016). In contrast, the narrow definition focuses on the exit mode of turnover, highlighting the transition of employees from within an organisation to outside it, as described by Bolt et al. (2022). The current review will focus on the narrow definition of turnover.

2.2 A model of individuals' behaviour within organisations

In the current study, we leveraged Werner and DeSimone's (2011) model of employee behaviour to analyse and summarise the existing literature on the turnover intention of military personnel in Taiwan (Figure 1). This model was chosen in that it was developed specifically for understanding how environments, employees' psychological processes and behaviours are related to one another. Furthermore, this model has been empirically tested in the context of the workplace (Long et al. 2012; Lin and Yoo 2013). According to the model, employees' turnover intention (Box E) serves as an immediate antecedent of employee behaviour (Box F), which is consistent with conceptual frameworks and findings of many meta-analytic studies (Hagger et al. 2023). Individuals' turnover intention is directly determined by individuals' psychological processes (Box D), which encompass the unobservable and malleable factors – such as motivation, affect, attitude and cognition – that drive behaviour (Deci et al. 2017; Garrick and Chan 2017;

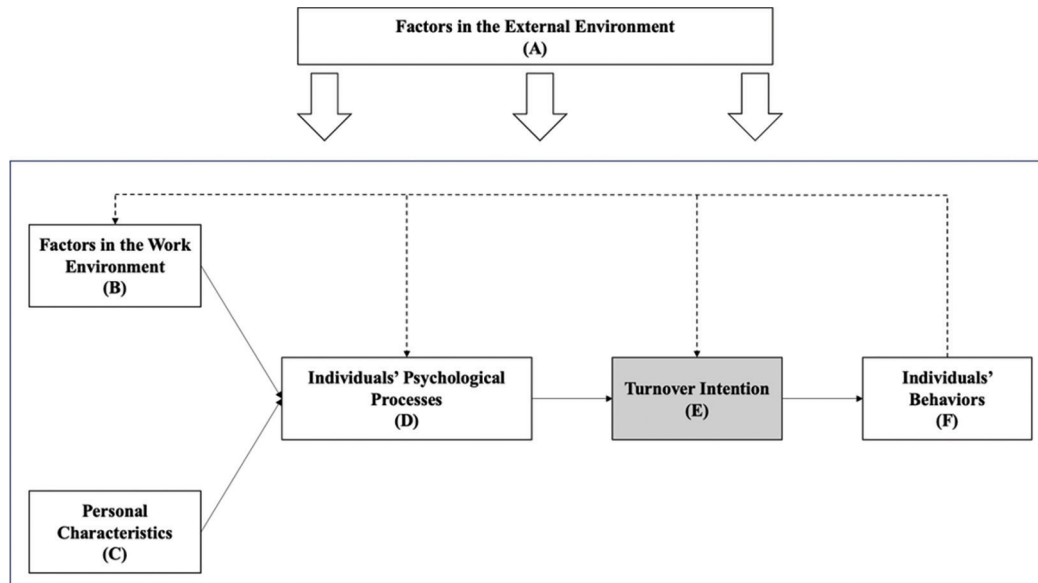


Fig. 1: A model of employee behaviour.

Elfenbein 2023; Kammeyer-Mueller et al. 2024). These psychological processes are assumed to be shaped by factors in the work environment (Box B), such as supervision, reward structure, job design and co-workers, and by personal characteristics (Box C), which represent relatively stable and less malleable factors, such as demographics and personality traits (Kang et al. 2023; Wang et al. 2024).

While both psychological processes and personal characteristics fall under the broader category of intraindividual factors, they differ in observability and malleability. Personal characteristics – such as gender and race – are typically more observable and less modifiable within a given context, whereas psychological processes are less visible and more susceptible to change. Given that individuals enter organisations with inherent or long-developed characteristics, our model of employee behaviour posits that both factors in the work environment and these relatively stable, observable personal characteristics serve as activators of individuals' in-situ psychological processes. This conceptualisation aligns with other well-established theoretical frameworks (e.g., Pintrich and Zusho 2007; Pekrun et al. 2023) and is supported by empirical findings (Amarasena et al. 2015; Iman and Lestari 2019; Hatinoğlu and Ergün 2020). The aforementioned factors will be impacted by factors outside organisations (Box A), such as economic conditions, labour market conditions, or laws and regulations. The model further stipulates that factors in the work environment and personal characteristics will only indirectly influence turnover intention through the pathways of individuals' psychological processes. According to this

model, any differences in turnover intention between military personnel can be traced back to factors in the work environment. This conceptualisation emphasises the importance of environments and prompts scholars and stakeholders to focus on solutions that can change the structure of an organisation. It should be noted that, although the model may appear to suggest a linear causal pathway from work environment factors and personal characteristics to turnover intention, it in fact emphasises a feedback loop from individuals' behaviour back to their turnover intentions, psychological processes and aspects of the work environment. This design highlights the role of human agency – the capacity of individuals to reflect on and influence their own thoughts and surroundings. This assumption aligns with several established theoretical frameworks that emphasise reciprocal determinism and agentic processes (Bandura 2001; Pintrich and Zusho 2007; Pekrun et al. 2023).

2.3 Present study

A country's security and long-term development rely on the overall combat effectiveness of the armed forces. With the military pension reform and the low social status of military careers, the Taiwanese government is facing severe challenges in retaining military personnel. As reviewed in previous sections, turnover has a huge impact on an organisation's competitiveness. Furthermore, turnover intention is closely related to the actual behaviour of leaving a job. Therefore, there is a need to review the existing literature

to identify factors that are associated with the turnover intention of military personnel in Taiwan. The current review was guided by the following questions:

RQ1: What are the types of evidence available on the turnover intention of military personnel in Taiwan?

RQ2: What are the main findings on the turnover intention of military personnel in Taiwan?

3 Method

3.1 Sampling of studies

The current study aimed to determine the scope of existing literature and map the types of evidence available regarding the turnover intention of military personnel in Taiwan. Given this objective, a scoping review was deemed more appropriate than a systematic review, as it better aligns with the goal of synthesising and organising a broad and diverse body of research (Munn et al. 2018). The current review followed the methodological framework for scoping reviews outlined by Mak and Thomas (2022). Studies considered for this review were primarily related to the turnover intention of military personnel in Taiwan. The decision to focus the review on Taiwan reflects the call for more ‘situationally specific and culturally bound’ research in psychology (Jacquelynne and Allan 2020, p. 2). To identify relevant studies, we initially searched Scopus [1] to examine the availability of English-language literature. This search yielded only eight studies, none of which directly addressed the turnover intention of military personnel. These results suggest that relevant research may be published in languages other than English. Since Mandarin Chinese is Taiwan’s official language, we extended our search to the Airiti Library, the largest electronic database for Chinese-language academic resources. The Boolean search terms used were: ([ALL] = (“turnover intention” OR “intent* to stay” OR “intent* to leave” OR “intent* to remain” OR “intent* to serve” OR “intent* to resign”)) AND [ALL] = (“military” OR “army” OR “navy” OR “air force” OR “soldier*” OR “sergeant*” OR “troop*”)). The country/region filter was set to ‘Taiwan’. The entire research team conducted the search in November 2023, which initially identified 346 potentially relevant studies. Based on the pre-established inclusion and exclusion criteria, the team screened titles and abstracts, followed by full-text reviews to determine eligibility. Cohen’s kappa coefficients for interrater

reliability were .78 for abstract screening and .44 for full-text screening, indicating moderate to substantial agreement (Cohen 1960).

3.2 Inclusion and exclusion criteria

Eligibility criteria were established a priori in accordance with scoping review best practices (Levac et al. 2010). To be included, studies had to meet all six of the following conditions: (a) be published in peer-reviewed journals; (b) be based on a sample of Taiwanese military personnel; (c) address the topic of turnover intention; (d) employ quantitative research methods; (e) include a methods section and report empirical findings; (f) be written in Chinese. Applying these criteria, 317 studies were excluded after abstract screening. Of the remaining 29 studies, 12 were excluded after full-text review. Ultimately, 17 studies met all inclusion criteria. The PRISMA 2020 flow diagram (Figure 2) summarises the study selection process and enhances transparency in reporting (Tricco et al. 2018).

3.3 Coding of studies

An initial coding schema was developed that included the following elements: author, year, sample size, data source, research design, analytical approach, causal antecedent (*X*), mediator (*M*), moderator (*W*), outcome variable (*Y*) [2] and research focus. ‘Research focus’ was categorised according to the dimensions outlined in Werner and DeSimone’s (2011) model. The included studies were first divided equally among members of the research team. Each member then extracted the relevant information from their assigned articles. To ensure consistency and accuracy, the first author reviewed all coded data. Any discrepancies were resolved through discussion among the team during the coding process.

4 Results

4.1 Trends in research on turnover intention among Taiwan’s military personnel

Figure 3 presents the number of records on the turnover intention of military personnel in Taiwan per year. Studies on this topic date from 2003. Since 2013, there have been an increasing number of related works published. The number peaked in 2019 and fluctuated afterward. The

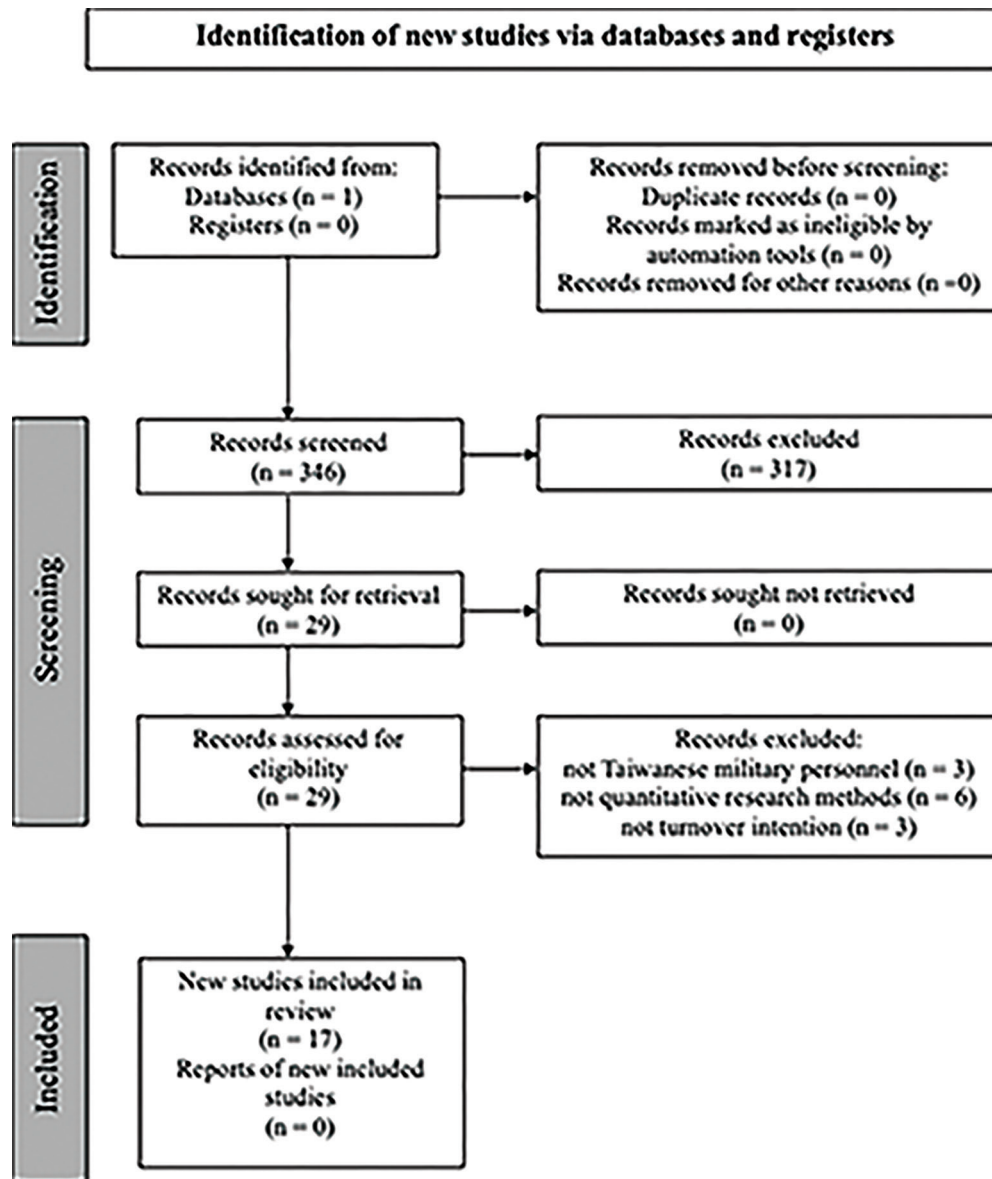


Fig. 2: PRISMA 2020 flow diagram.

sample size ranged from 176 to 994 participants. These 17 included studies encompassed a total of 6,256 members of military units in Taiwan. Self-reported survey is the main data source ($n = 17$; 100%). Furthermore, most of the studies ($n = 16$; 94%) employed a non-experimental correlational and predictive research design and were based on cross-sectional data, aiming to examine the relations between variables of interest and turnover intention. Of the included studies, eight (47%) studies explored mediation mechanisms, while seven (41%) studies examined moderation mechanisms. Regarding research focus, 12 studies (71%) examined factors in the work environment, 13 (74%) studies examined individuals' personal

characteristics, 10 studies (59%) examined individuals' psychological processes, and no studies examined factors in the external environment. Tables 1 and 2 summarise the included studies.

4.2 The role of work environment factors in turnover intention

A growing body of literature has identified a wide range of work environment factors associated with military personnel's turnover intention. These factors include social, supervisory and organisational support; internal

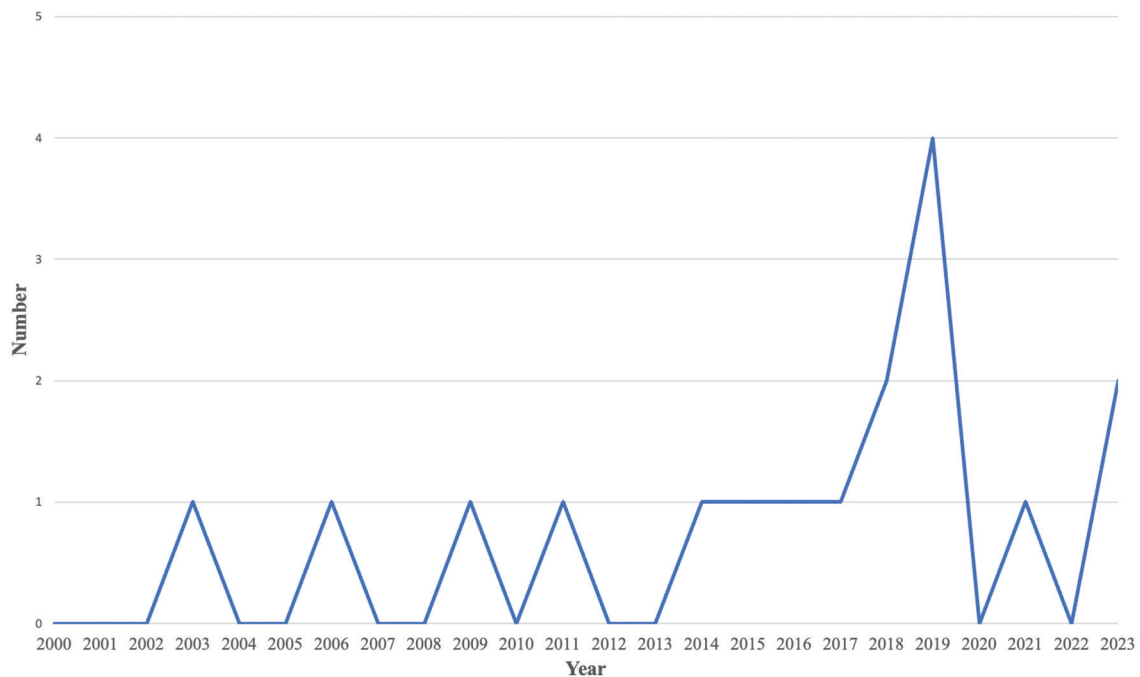


Fig. 3: Trends in studies on the turnover intention of military personnel in Taiwan.

and external communication; alignment between organisational culture and members' values; workplace incivility; perceived usefulness of organisational policies; onboarding and socialisation processes; task assignment practices; work–family conflict; autonomy and equity; and uncertainty (e.g., Day and Huang 2011; Hsu and Tsai 2015; Chang et al. 2017; Liu and Chen 2018; Lee et al. 2023). Several studies have demonstrated that such environmental factors predict turnover intention above and beyond the influence of personal characteristics and psychological processes (e.g., Lo and Chou 2006; Day and Huang 2011; Lee et al. 2021). As shown in Table 3, a smaller subset of studies examined multiple work environment factors within the same analytical models. These studies suggest that perceived support from supervisors and organisations, organisational culture and both person–organisation fit and person–job fit play particularly salient roles in shaping turnover intention—often more so than factors such as the physical work environment, peer collaboration, or general uncertainty (e.g., Chang et al. 2017; Liu and Chen 2018; Lee et al. 2023).

4.3 The role of personal characteristics in turnover intention

Although, in theory, personal characteristics are positioned as distal antecedents of turnover intention, several studies

have been interested in exploring the direct effects of personal characteristics. Overall, many personal characteristics were found to be significantly and directly associated with turnover intention, including gender, age, rank, marital status, education, years of service, occupational specialties, salary, residence, location of deployment, organisational identification, grit, power distance and family influence (e.g., Hsu and Chiang 2019; Lee et al. 2021; Chang and Hsiung 2023; Lee et al. 2023). However, discrepant results have been reported regarding the direct effects of personal characteristics on turnover intention. For instance, while Hsu and Chiang (2019) and Lee et al. (2023) found significant effects of gender on turnover intention, many studies had different conclusions (e.g., Lo and Chou 2006; Day and Huang 2011; Wu 2014; Hsu and Tsai 2015). In a similar vein, Wu (2014) found significant effects of marital status on turnover intention, many studies found otherwise (e.g., Day and Huang 2011; Tsai and Lee 2016; Cheng 2019).

4.4 The role of psychological processes in turnover intention

Although individuals' psychological processes have been examined less frequently, all factors of interest were found to be significantly associated with turnover intention. These factors included job stress, achievement

Tab. 1: Summary of included studies: types of evidence

Year	Author	<i>n</i>	Data source	Research design	Analytic approach
2003	Shih and Tseng	826	Survey	Relational; cross-sectional	Regression
2006	Lo and Chou	399	Survey	Relational; cross-sectional	Regression
2009	Lin and Chung	400	Survey	Relational; cross-sectional	Regression
2011	Day and Huang	246	Survey	Relational; cross-sectional	t-test; one-way ANOVA; regression
2014	Wu	186	Survey	Relational; cross-sectional	t-test; one-way ANOVA; regression
2015	Hsu and Tsai	314	Survey	Relational; cross-sectional	Regression
2016	Tsai and Lee	313	Survey	Relational; cross-sectional	t-test; one-way ANOVA
2017	Chang et al.	281	Survey	Relational; cross-sectional	SEM
2018	Liu and Chen	179	Survey	Relational; cross-sectional	Conditional process analysis
2018	Wang and Huang	176	Survey	Relational; cross-sectional	t-test; regression
2019	Chen and Huang	994	Survey	Relational; cross-sectional	Hierarchical regression analysis
2019	Hsu and Chiang	345	Survey	Relational; cross-sectional	t-test; one-way ANOVA
2019	Li	285	Survey	Relational; cross-sectional	Regression
2019	Cheng	248	Survey	Relational; cross-sectional;	One-way ANOVA
2021	Lee et al.	318	Survey	Relational; cross-sectional	MSEM
2023	Chang and Hsiung	444	Survey	Relational; cross-sectional	SEM
2023	Lee et al.	302	Survey	Relational; sequential	Conditional process analysis

ANOVA = one-way analysis of variance; MSEM = multilevel structural equation modelling; SEM = structural equation modelling.

Tab. 2: Summary of included studies: main findings

Year	Author	<i>X</i>	<i>M</i>	<i>W</i>	<i>C</i>	Focus
2003	Shih and Tseng	Job stress -anxiety and depression -low self-esteem -exhaustion social support acquisition -internal social support acquisition -external social support acquisition need for social support -need for internal social support -need for external social support		Social support acquisition		b, d
2006	Lo and Chou	Perceived supervisor support		Job-loading achievement motivation -social-oriented -individual-oriented	Gender age	b, c, d
2009	Lin and Chung	Internal marketing -education and training -management support -internal and external communication achievement motivation -mastery -work orientation -competition	Organisational commitment -value and efforts commitment -retention commitment			b, d

(Continued)

Tab. 2: Continued

Year	Author	X	M	W	C	Focus
2011	Day and Huang	Gender rank age marital status education years of service occupational specialties salary leadership style organisational culture physical working environment job characteristics family influence peer collaboration				b, c
2014	Wu	Gender age marital status rank track years of service residence job satisfaction				c, d
2015	Hsu and Tsai	Co-worker incivility	Surface acting		Gender age education years of service years of service in the current position	b, c, d
2016	Tsai and Lee	Gender age education years of service occupational specialties marital status				c
2017	Chang et al.	Practicality of perceived policies	Perceived organisational support	Rank		b, c
2018	Liu and Chen	Organisational socialisation	Person–organisation fit	Leadership style		b
2018	Wang and Huang	Gender age education marital status rank years of service occupational specialties military units job stress job burnout				c, d

(Continued)

Tab. 2: Continued

Year	Author	X	M	W	C	Focus
2019	Chen and Huang	Job stress	Well-being organisational commitment		Gender rank education marital status military units	b, c, d
2019	Hsu and Chiang	Gender age education years of service				c
2019	Li	Perceived risk job satisfaction		Transformational leadership organisational identification		b, d
2019	Cheng	Age job characteristics marital status number of dependents location of deployment				c
2021	Lee et al.	Social responsibility	Organisational identification		Gender years of service	b, c
2023	Chang and Hsiung	Work-family conflict	Job burnout	Grit		b, c, d
2023	Lee et al.	Person-job misfit -need-supply misfit -demand-ability misfit	Organisational frustration	Authoritarian leadership	Gender years of service track power distance uncertainty	b, c, d

Tab. 3: Comparing factors in the work environment

Year	Author	Findings
2006	Lo and Chou	Perceived supervisor support $\approx$ job loading
2011	Day and Huang	Organisational culture $\approx$ leadership style, physical work environment, job characteristics and peer collaboration
2017	Chang et al.	Perceived organisational support perceived practicality of policies
2018	Liu and Chen	Person-organisation fit $\approx$ organisational socialisation
2023	Lee et al.	Person-job fit $\approx$ uncertainty

motivation, organisational commitment, job satisfaction, surface acting, job burnout, well-being and organisational frustration (e.g., Chen and Huang 2019; Li 2019; Chang and Hsiung 2023; Lee et al. 2023). Different from the findings of personal characteristics, many research studies examined the same construct in different contexts

and obtained similar results. For instance, both Wu (2014) and Li (2019) found a significant and positive association between job satisfaction and turnover intention. Both Wang and Huang (2018) and Chang and Hsiung (2023) found a significant and negative association between job burnout and turnover intention.

4.5 Mediation mechanisms

In addition to direct effects, a few studies were interested in examining the indirect relation with turnover intention. In terms of work environment factors as mediators, Chang et al. (2017) and Liu and Chen (2018) found that the perceived practicality of policies and organisational socialisation were indirectly related to turnover intention through the pathways of perceived organisational support and person-organisation fit, respectively. In terms of personal characteristics as mediators, Lee et al. (2021) found

that social responsibility was indirectly related to turnover intention through the pathway of organisational identification. In terms of individuals' psychological processes as mediators, Hsu and Tsai (2015), Chang and Hsiung (2023) and Lee et al. (2023) found that co-worker incivility, work–family conflict and person–job misfit were indirectly related to turnover intention through the pathways of surface acting, job burnout and organisational frustration, respectively. Finally, Chen and Huang (2019) reported that job stress was indirectly related to turnover intention through the pathways of well-being and organisational commitment.

4.6 Moderation mechanisms

Some studies have considered the role of moderators in relation to turnover intention. Lo and Chou (2006) found that the relation between perceived supervisor support and turnover intention was moderated by achievement motivation. Li (2019) also found that the relation between perceived risk and turnover intention was moderated by organisational identification and the relation between job satisfaction and turnover intention was moderated by transformative leadership. On the contrary, Shih and Tseng (2003) found that the relationship between job stress and turnover intention was not moderated by social support acquisition. Chang and Hsiung (2023) found that

the relation between job burnout and turnover intention was not moderated by grit.

Instead of focusing on turnover intention, other studies examined the moderation mechanisms involving variables of interest within the nomological network of turnover intention. Liu and Chen (2018) found that the relationship between organisational socialisation and person–organisation fit was moderated by leadership style. Chang and Hsiung (2023) also found that the relation between work–family conflict and job burnout was moderated by grit. Lee et al. (2023) reported that the relation between person–job misfit and organisational frustration was moderated by authoritarian leadership. On the contrary, Chang et al. (2017) found that the relation between the perceived practicality of policies and perceived organisational support did not differ by military personnel's rank. Figure 4 summarises the findings of the existing literature.

5 Discussion

The current review intends to examine the scope of evidence on the turnover intention of military personnel in Taiwan and summarise the main findings. Regarding RQ1, the current review shows that there has been a continued interest in studying military personnel's turnover intention for the past two decades. One-time data

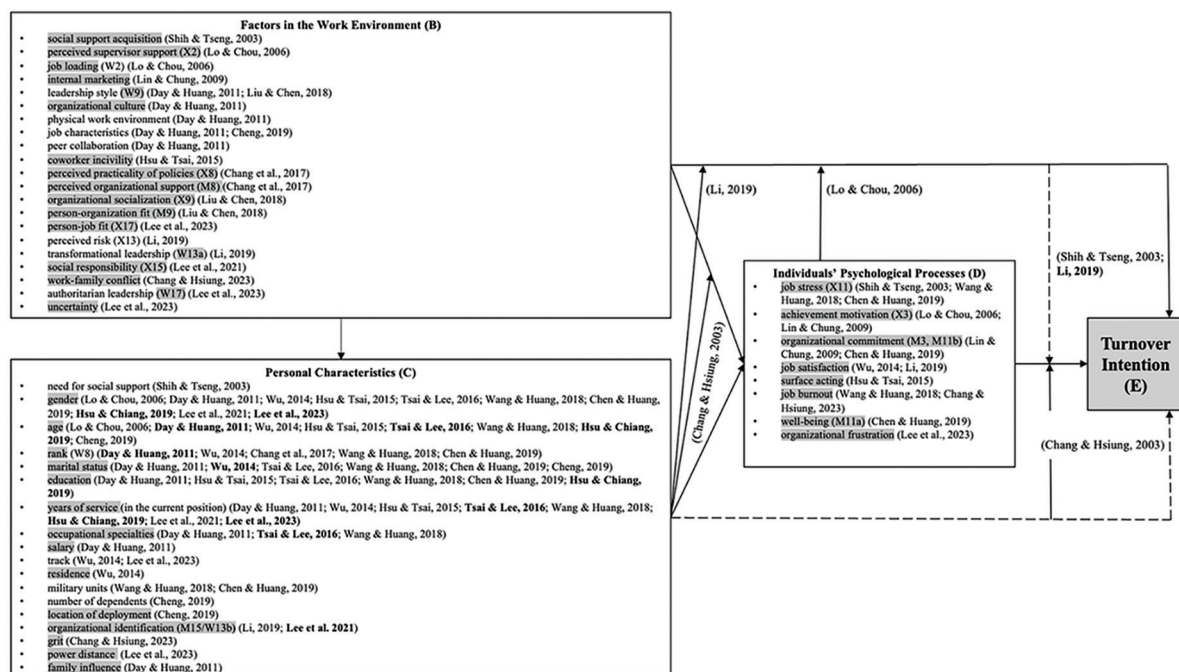


Fig. 4: Hypothesised model and empirical findings [3].

collection using surveys remains the major approach to study this topic. Accordingly, the validity and reliability of survey measures are critical for obtaining robust results. We encourage scholars to provide details about the instruments, including validation processes and sample items in their papers. Furthermore, cross-sectional data may be limited in establishing causal evidence and could provide biased estimates of longitudinal mediation parameters (Mitchell and Maxwell 2013). Sequential or cross-lagged panel designs have been shown to be better solutions. Bootstrapping for testing indirect effects is recommended (Preacher and Hayes 2008). Secondly, although the current review suggests that individuals' psychological processes matter the most for military personnel's turnover intention, this dimension has received less attention. More efforts should be devoted to this dimension in the future. In particular, the relations between factors in the work environment, work motivation and turnover intention would be an important avenue for research. Third, no studies have considered factors in the external environment. Causal modelling methods such as regression discontinuity could be a promising method to investigate how factors in the external environment, such as the implementation of a new policy, influence turnover intention (Imbens and Thomas 2008).

Regarding RQ2, the current review demonstrates the significant roles of factors in the work environment in relation to military personnel's turnover intention. This finding has two layers. In Werner and DeSimone's (2011) model, work environment factors are assumed to influence turnover intention only indirectly through individuals' psychological processes. This hypothesis is supported by some of the included studies (Hsu and Tsai 2015; Chang and Hsiung 2023; Lee et al. 2023). However, the current review also shows that factors in the work environment can exert direct effects on turnover intention even after controlling for personal characteristics and/or individuals' psychological processes, which indicates the powerful nature of work environments in shaping individuals' intentions and behaviours. Although the current review identified several factors in the work environment that could be responsible for turnover intention, they seem to capture different dimensions. However, we believe that one of the main reasons these factors are important could be that they all serve to satisfy individuals' three psychological needs, as shown in Table 4 (Deci et al. 2017). We encourage scholars to test our proposition and examine whether and how these factors in the work environment relate to three psychological needs and turnover intention.

Tab. 4: Factors in the work environment and three psychological needs

Factors in the work environment	Psychological needs
Social support acquisition	Relatedness
Perceived supervisor support	Competence; relatedness
Job loading	Competence
Internal marketing	Relatedness
Organisational culture	Relatedness
Co-worker incivility	Relatedness
Perceived practicality of policies	Competence, relatedness
Perceived organisational support	Competence, relatedness
Organisational socialisation	Relatedness
Person-organisation fit	Relatedness
Person-job fit	Competence
Social responsibility	Autonomy; competence; relatedness
Work-family conflict	Autonomy
Uncertainty	Competence

The existing literature seems to support Werner and DeSimone's (2011) model that personal characteristics will only indirectly influence turnover intention through individuals' psychological processes. Discrepant results have been reported regarding the direct effects of personal characteristics on turnover intention. However, this does not mean personal characteristics do not matter for turnover intention at all. On one hand, personal characteristics could play indirect roles in relation to turnover intention. On the other, personal characteristics could serve as moderators in the nomological network of turnover intention as suggested by Li (2019) and Chang and Hsiung (2023).

In line with Werner and DeSimone's (2011) model, the current review shows that individuals' psychological processes serve as the immediate and critical antecedents of turnover intention. Accordingly, the main reason there is an increase in military personnel's intention to leave is likely to result from changes in their psychological processes, including an increase in job stress, job burnout and organisational frustration, as well as a decrease in achievement motivation, job satisfaction and well-being. Supervisors and leaders are recommended to maintain regular communication with or survey military personnel to gauge whether there is any change in their internal states. In addition, as the current review suggests, creating optimal work environments by addressing the factors listed in Table 4 is more likely to foster adaptive psychological processes and reduce turnover intention. Last, apart from the roles of causal antecedents or mediators,

individuals' psychological processes could serve as moderators, influencing the relations between factors in the work environment and turnover intention (Lo and Chou 2006).

5.1 Avenues for future research: methodology

Here are four suggestions for improving the analytical approaches in research on military personnel's turnover intention. First, the sample size for each group, mean, standard deviation and bivariate correlation need to be provided. Second, multiple comparisons need to be controlled for type I error rate. Third, coefficients of covariates need to be reported. Fourth, if interaction terms are not statistically significant, coefficients of the baseline model need to be reported.

5.2 Limitations and conclusions

There are at least two limitations associated with the current review. First, the current review is situated in Taiwan. Therefore, the findings and implications may not be generalisable to military personnel in other countries. Second, the current review only included quantitative studies published in peer-reviewed journals and excluded grey literature. Accordingly, the conclusions may not reflect all the relevant works on the turnover intention of military personnel. Despite these limitations, the current review provides important insights into what is known about the turnover intention of military personnel in Taiwan and points out what are the gaps and need to be addressed in future research.

6 Notes

1. Boolean operators were "Taiwan" AND ("military" OR "army" OR "navy" OR "air force" OR "soldier*" OR "sergeant*" OR "troop*") AND ("turnover" OR "intent* to leave" OR "intent* to stay" OR "intent* to remain" OR "intent* to serve*" OR "intent* to continue" OR "intent* to resign").
2. We followed Hayes's (2022) terminology.
3. Grey highlight: significant results; bold: significant results among inconsistent findings; arrow: causal path; solid line: empirically supported; broken

line: not empirically supported; long dash line: discrepant results.

Declarations

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Conflicts of interest statement

The authors have no relevant financial or non-financial interests to disclose.

Availability of data statement

Not applicable.

Code availability statement

Not applicable.

Ethics statement

The present study does not involve human participants.

Consent for publication statement

This manuscript has not been published elsewhere. It is not pending in review by other journals.

Authors' contributions

Shonn Cheng: conceptualisation, original draft, review & editing, data collection & curation, methodology, formal analysis. Jai-Wen Tsai: original draft, review & editing, data collection & curation, methodology, formal analysis. Sung-Chan Ku: original draft, review & editing. The author(s) read and approved the final manuscript.

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*References marked with an asterisk indicate studies included in the research synthesis.

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