Journal of Multidisciplinary Healthcare

Dovepress
open access to scientific and medical research

Open Access Full Text Article

ORIGINAL RESEARCH

The Association Between Intimate Partner Violence and Work Thriving/Work Alienation Among Chinese Female Nurses: The Mediating Impact of Resilience

Juanjuan Lei[1,2], Huijing Lai[1,3], Siting Zhong[4], Xiaoli Zhu[5], Dianyu Lu[6]

[1]School of Nursing, Guangzhou University of Chinese Medicine, Guangzhou, People's Republic of China; [2]Department of Surgery, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, Guangzhou, People's Republic of China; [3]Department of Pneumology, Foshan Hospital of TCM, Foshan, People's Republic of China; [4]Department of Radiotherapy, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, Guangzhou, People's Republic of China; [5]Department of Nursing, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, Guangzhou, People's Republic of China; [6]Department of Anaesthesiology, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, Guangzhou, People's Republic of China

Correspondence: Dianyu Lu, Department of Anaesthesiology, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, 78 Hengzhigang Road, Yuexiu District, Guangzhou, 510095, People's Republic of China, Tel +86-020-66673666, Email ldy020505@163.com; Xiaoli Zhu, Department of Nursing, Affiliated Cancer Hospital and Institute of Guangzhou Medical University, 78 Hengzhigang Road, Yuexiu District, Guangzhou, 510095, People's Republic of China, Tel +86-15902037400, Email zhuxseven@163.com

Objective: The primary objective of this cross-sectional study was to examine the prevalence of different types of intimate partner violence (IPV) among female nurses employed in public hospitals across China. Additionally, the study sought to investigate the relationship between nurses' psychological resilience and their experiences of work thriving and work alienation in the aftermath of IPV.

Methods: This cross-sectional study utilized an online self-report survey to collect data from a sample of 522 female nurses working in public healthcare facilities across several major cities in China. The survey instrument collected information on participants' sociodemographic characteristics, experiences of intimate partner violence (IPV), psychological resilience, work thriving, and work alienation. The Kruskal–Wallis one-way ANOVA test was used to compare outcome variables across IPV exposure groups, and multiple linear regression modeling was subsequently performed to examine the associations between the dependent variables (work thriving and work alienation) and the independent variables, including IPV exposure and resilience.

Results: The overall prevalence of IPV reported by the female nurse participants was 74.26%. Specifically, the rates of emotional IPV, physical IPV, and sexual IPV were 74.06%, 24.27%, and 7.53%, respectively. The results indicated that total IPV exposure, the three IPV subtypes, psychological resilience, work thriving, and work alienation were all significantly and positively interrelated. IPV scores demonstrated a negative association with psychological resilience and work thriving, but a positive association with work alienation. Importantly, psychological resilience was found to be positively correlated with work thriving and negatively correlated with work alienation.

Conclusion: The findings suggest that psychological resilience plays a pivotal role, both directly and indirectly, in influencing the work-related outcomes of female nurses who have experienced IPV. Specifically, resilience was positively associated with thriving at work and directly negatively associated with work alienation, though a partial mediating effect of resilience was also observed.

Keywords: resilience, Chinese female nurses, intimate partner violence, thriving at work, work alienation

Introduction

Female Nurses' Intimate Partner Violence and Influence

Intimate partner violence (IPV) is widely acknowledged as a significant public health and social issue on a global scale, with far-reaching implications for individuals, families, and society as a whole.[1] Disturbing global trends show that over 30% of women worldwide have endured IPV.[2,3] Among healthcare professionals who assist IPV survivors, nurses represent the largest occupational group, yet they are not immune to experiencing such abuse themselves.[4] Alarmingly, around 39% of female

Received: 29 January 2024
Accepted: 17 May 2024
Published: 4 June 2024

nurses have reported suffering either physical or emotional IPV.[5] Furthermore, a quarter of study participants disclosed lifetime experiences of physical or sexual IPV, while 22.8% divulged a history of lifetime emotional IPV.[6] This pervasive exposure to partner violence often results in debilitating physical or psychological trauma that directly impairs their job performance and diminishes their capacity for empathy.[4,7]

Nurses play dual roles, serving as healthcare workers as well as spouses and parents, often emphasizing these two domains and the need to balance them: their work and family life.[6] Both work-to-family conflict and family-to-work conflict have been positively associated with emotional exhaustion and cynicism. Work-to-family conflict refers to the negative impact of work-related demands or stress on an individual's family responsibilities and personal life. This occurs when professional obligations, workload pressure, and difficulty balancing work and home life interfere with their roles and duties within the family.[8] Factors such as overtime, high work pressure, and the challenge of equilibrating work and family may lead to diminished personal time at home or an inability to fully devote oneself to family matters, as work-related stress persists. In contrast, family-to-work conflict indicates that an individual's family life requirements or issues have had a detrimental effect on their work performance and engagement.[9] For example, incidents of intimate partner violence, problems with children, or health concerns of family members may cause nurses to be distracted, emotionally unstable, and have impaired work productivity. These two types of conflicts reflect the delicate balance between the work and family domains. When nurses are unable to effectively manage this balance, these work-family conflicts arise. Maintaining a healthy equilibrium between these two crucial areas is essential for nurses.[10]

Nurses' Work Thriving and Work Alienation

Nursing is a high-pressure and high-risk profession, with significant occupational hazards. The evolving medical landscape has prompted a shift from the traditional biomedical model towards a more holistic, psychosocial approach to patient care. In response, government authorities have implemented a series of initiatives aimed at equipping nurses with a supportive work environment, fair compensation, and opportunities for professional advancement. The intent is to empower nurses and foster their ability to thrive in their roles. Individuals who are thriving at work exhibit greater vitality, engagement, and empathy.[8,11] This state of work thriving enables nurses to continually develop their skills and knowledge, ultimately contributing to the enhancement of collective efficacy and wellbeing within the healthcare workforce.

However, due to the rising demand for high-quality nursing services, nurses commonly experience stress caused by excessive tasks, responsibilities, staff shortages, increased patient demands, reduced job satisfaction, sensitive communication, excessive workload, and low remuneration.[9,10] In severe cases, nurses can experience work alienation, and may even consider leaving the profession.[11,12] This sense of alienation can result in a reduction of nurses' work autonomy, involvement in decision-making,[13] poorer nursing quality,[14] and higher turnover.[15] Therefore, it is of great significance to identify work alienation as soon as possible and implement proactive measures to ensure the vitality and retention of nursing teams.

The Effect of Psychological Resilience

Psychological resilience, a concept in positive psychology, refers to an individual's capacity to adapt positively to the current environment in the face of trauma. Research has suggested that the development of resilience can lead to increased thriving and decreased work alienation.[16] In Chinese nurses, work-family conflict has been found to be linked to alienation, with psychological capital acting as a mediator in this relationship.[16–18] Psychological capital represents an advantageous asset in mitigating nurses' sense of alienation.[19] Specifically, increasing psychological resilience has the potential to minimize the conflict between work and family responsibilities, thereby alleviating the problem of work alienation that is pervasive in the nursingfield.[18,19] Furthermore, research has demonstrated that enhancing self-efficacy in professionals working in the context of IPV can lead to an increase in recovery experiences and a concomitant decrease in alienation levels.[20]

A limited body of empirical investigations have examined the incidence of IPV within the nursing population, the factors contributing to it, and its consequences.[20–22] However, research exploring the impact of psychological resilience on female nurses experiencing IPV, the extent of their work thriving, and the concomitant issue of work alienation remains scarce. This paucity of evidence impedes our ability to develop effective, evidence-based approaches to bolster work resilience among nurses.

IPV Under the Background of Chinese Female Nurses

In the context of Chinese female nurses, IPV may be influenced by specific factors including: family values, traditional Chinese culture emphasizes the importance of family, which in some cases may lead to the neglect of issues regarding intimate partner violence as family matters.[13,14] Family members may tend to view problems between intimate partners as private matters and may be reluctant to intervene.

Gender roles, in traditional Chinese culture, males are often seen as the primary breadwinners and authoritative figures in the family, while females are expected to take on more household responsibilities.[22] These gender role stereotypes may contribute to power imbalances in intimate partner relationships, increasing the likelihood of violence.[23]

Social pressure, Chinese society places high expectations on marriage and family, which may create significant pressure for individuals facing marital issues.[24] This pressure can make it difficult for individuals to openly discuss or address issues of intimate partner violence for fear of social stigma or criticism.

Communication patterns, in Chinese culture, there is often a tendency to avoid direct conflict and confrontation. This may lead victims of intimate partner violence to endure or tolerate the abuse rather than seek help or report the violence.[25]

In addition, nurses in China may encounter victims of intimate partner violence in their professional practice. Therefore, it is crucial for nursing professionals in China to be aware of, educated about, and capable of intervening in cases of intimate partner violence.[15] Nursing professionals should receive relevant training on how to recognize signs of intimate partner violence and provide appropriate support and assistance, including guiding victims to seek psychological counseling, providing information about shelters, and assisting with reporting to authorities and legal procedures.[19] Furthermore, nursing professionals can contribute to raising awareness of intimate partner violence through education and advocacy efforts, promoting societal change and support. However, empirical investigations into intimate partner violence (IPV) among female nurses in China remain relatively limited. Understanding the current state of IPV and its associated influencing factors within this population in the Chinese context is of critical importance.

Materials and Methods

Design and Participants

The study utilised a cross-sectional design to conduct an online self-assessment survey. This study aims to target female nurses working in public hospitals in China. Contact channels were established through the participating hospitals' human resources departments, nursing associations, professional forums, and social media platforms. Recruitment messages were disseminated across these channels to solicit participation from interested nurses. Invitations or messages were sent to the target population, outlining the study's purpose, significance, and benefits of involvement. Survey access was facilitated through provided links or QR codes to encourage ease of participation. Incentives such as gift cards, raffle events, and result report sharing were offered, particularly to those with relatively negative attitudes, in an effort to bolster motivation. Participants were assured of confidential treatment of responses and anonymous handling of personal information to cultivate trust. Regular follow-ups were conducted to monitor participation rates, and reminders were sent via Email or messaging to promote ongoing engagement. In total, 522 female nurses employed within public hospitals across diverse Chinese cities took part in the survey, which was implemented during the May-August 2022 period.

The inclusion criteria were: (1) currently or previously engaged in a heterosexual intimate relationship; (2) the intimate relationship lasted for a minimum of three months; (3) intimate partners included current or former spouses, lovers, and other opposite-sex or same-sex partners. Exclusion criteria encompassed individuals with serious mental health issues who had received psychological treatment, those with cognitive impairments preventing accurate understanding of the survey content, and those involved in legal proceedings against their spouses to avoid potential bias in the investigation results.

The study protocol was approved by the Ethics Committee of the Affiliated Cancer Hospital and Institute of Guangzhou Medical University (reference number ZN2022-11). This study was conducted in accordance with the declaration of Helsinki. Informed consent was obtained through an anonymous questionnaire that outlined the study's purpose, content, and significance.

Research Tool

The researchers responsible for data collection underwent specialized training to develop expertise in survey instrument administration and efficient participant communication techniques. Participants were provided with precise instructions and detailed explanations to ensure their thorough understanding of the survey's purpose, the significance of the questions, and proper completion of the questionnaire. The research team was able to offer comprehensive guidance that included explanations, examples, and vocabulary definitions as needed.

To safeguard the consistency and accuracy of the data, the investigators conducted logical checks and data validation procedures following the collection process. During the research design phase, a comprehensive data management plan was developed to outline specific protocols and guidelines for data gathering, storage, processing, and sharing. This enhanced the reproducibility and trustworthiness of the data while also ensuring its security and traceability.

Demographics information questionnaire

It was designed by the research team to collect demographic data, including age, education level, occupation, marital status, income, partner's occupation, partner's income, and number of children.

IPV questionnaire (Chinese version)

The IPV questionnaire utilized in this study was an 18-item Chinese instrument developed by Yuan and Hesketh in 2019. This scale was constructed by integrating several established international assessment tools to screen for the occurrence of IPV among Chinese women (scale[23]). The questionnaire encompassed three subscales: physical violence, psychological violence, and sexual violence. The physical violence subscale comprised eight items evaluating experiences of hitting, kicking, pushing, slapping, beating, throwing objects, hair pulling, and threats/harm with a knife. The sexual violence subscale incorporated two items from the Conflict Tactics Scale (CTS2), three items regarding aggressive expression from the CTS, two items from the Comprehensive Abuse Scale pertaining to coercive control, and an additional three items adapted from the CTS.

The questionnaire comprises of four original items,[24,25] each of which presents four options inquiring about previous experiences of intimate violence, including the number of occurrences (never, 1 to 2 times, 3 to 10 times, >10 times). Results from Bartlett's sphericity test indicate that the Cronbach's alpha coefficients of the sexual violence, psychological violence, physical violence subscales and the total scale of the IPV questionnaire in Chinese are 0.8, 0.85, 0.9, and 0.92, respectively, indicating strong reliability and validity.[26]

Work thriving scale

The Work Thriving Scale was utilized to assess the psychological state of vitality and learning experienced by the participants in their work environment. This 10-item instrument includes two subscales: the Learning Scale (items 1–5) and the Vitality Scale (items 6–10). The total score or average score for each subscale can be calculated to evaluate the respective dimensions. In the current study, the Cronbach's α for this scale was 0.907, indicating strong internal consistency.

Nurses' work alienation questionnaire

The Nurses' Work Alienation Questionnaire, developed by a Chinese scholar,[27] was employed to measure work alienation. This 12-item scale encompasses three dimensions: sense of helplessness, friendlessness, and meaninglessness. Participants responded using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree", with higher total scores indicating a greater sense of work alienation. The instrument has been widely adopted by scholars and has demonstrated robust reliability and validity. In the present study, the Cronbach's α was 0.883, further supporting the scale's internal consistency.[28]

CD-RISE-10

The Connor–Davidson Resilience Scale comprises ten items that prompt respondents to assess their agreement with specific statements on their coping abilities in the face of adversity. Each question employs a 5-point Likert scale scoring system with a range of 0–4, from "never true" to "always true". The overall resilience score is derived from the sum of

individual item scores, with higher values indicating greater resilience.[29] The CD-RISC-10 has demonstrated adequate dependability and validity in China,[30] and in this study, the Cronbach's α was 0.94.

Statistical Analysis

Data were exported directly from the online questionnaire system and analyzed using SPSS 25.0 (SPSS Inc., Chicago, IL). Firstly, descriptive analyses, as well as one-way analysis of variance (ANOVA) were calculated for describing socio-demographic characteristics and comparing the distribution of IPV, work thriving and work alienation. Secondly, we calculated Pearson correlation coefficients between all variables. Thirdly, we performed structural equation modeling (SEM) and mediation analyses using maximum likelihood method. We established 4 models to test whether the association between four types of IPV (total IPV, emotional IPV, physical IPV and sexual IPV) and two outcomes (working thriving and working alienation) were mediated by mental resilience. For all pathways, standardized direct, specific indirect, total indirect and total effects were examined. To evaluate the overall model fit, we used indices including c^2/df ratio, comparative fit index (CFI), incremental fit index (IFI), and root-mean-square error of approximation (RMSEA). For each index, the following criteria were applied: (1) c^2/df ratio values less than 3 indicates a good model fit;[31] (2) CFI and IFI values greater than 0.9 indicates a good model fit;[32] and (3) for RMSEA, for RMSEA excellent fit < 0.05 and moderate fit < 0.08.[33] The bias-corrected 95% confidence interval (CI) was calculated with 5000 bootstrapping re-samples. If the 95% of indirect effect (path a*b) did not contain 0, it means that the mediating effect was significant. Statistical significance was defined as a two-tailed p-value of < 0.05. In addition, all models were controlled for covariates (age, education and marital status) and the study variables were standardized.

Results

Sample Statistics

Sociodemographic Characteristics

A total of 522 questionnaires were distributed, and 478 valid responses were collected, yielding an effective response rate of 91.6%. The mean age of the participants was 35.366 ± 7.282 years, with 264 respondents (55.23%) between 31 and 40 years old. The majority of participants (84.52%, n = 404) held a bachelor's degree, and 354 (74.06%) were married with children. A significant proportion of the sample (61.72%, n = 295) had been practicing as a nurse for more than 10 years. Regarding income, 290 participants (60.67%) reported an average monthly salary between 7000 and 15,000 Yuan. Additionally, 367 (76.78%) of the respondents' partners had attained a junior college or undergraduate degree. The detailed sociodemographic characteristics of the study sample are presented in Table 1.

Total IPV and Three Types of IPV, Mental Resilience, Work Thriving and Work Alienation

The overall prevalence of IPV among female nurses was 74.26%, with emotional IPV, physical IPV, and sexual IPV occurring at rates of 74.06%, 24.27%, and 7.53%, respectively. Among the participants, 25 individuals experienced all three forms of IPV concurrently, representing 5.23% of the sample. Additionally, 237 participants endured both emotional IPV and physical IPV, accounting for 49.58%. Furthermore, 28 individuals suffered from both physical IPV and sexual IPV, making up 5.86% of the sample, while 36 individuals experienced both emotional IPV and sexual IPV, comprising 7.53% of the sample. It is noteworthy that all victims of sexual IPV also experienced emotional IPV. The Mean±SD values of total IPV, emotional IPV, physical IPV, and sexual IPV, as well as resilience, work thriving, and work alienation in the participants, were presented and compared in Table 1.

Correlation Analyses

Table 2 presents the means, standard deviations, and correlations among the variables of interest. The results indicated that total IPV, the three subtypes of IPV (physical, psychological, and sexual), resilience, work thriving, and work alienation were all positively correlated with one another. Specifically, IPV scores were negatively associated with mental resilience and work thriving, but positively correlated with work alienation. Mental resilience exhibited a positive relationship with work thriving and a negative relationship with work alienation. Furthermore, work thriving was inversely correlated with work alienation.

https://doi.org/10.2147/JMDH.S461895 DovePress

Table 1 Sociodemographic Characteristics and the Distribution of IPV, Work Thriving and Work Alienation (n = 478)

Sociodemographic Characteristics	n(%)	IPV (Mean ±SD)	p	Emotional IPV (Mean ±SD)	p	Physical IPV (Mean ±SD)	p	Sexual IPV (Mean ±SD)	p	CD-RISC (Mean±SD)	p	Work Thriving (Mean±SD)	p	Work Alienation (Mean±SD)	p
Age															
22–30	115 (23.85)	20.69±4.000/85	<0.001	10.26±2.583	<0.001	8.34±1.927	0.015	2.09±0.588	0.058	33.45±7.031	0.012	46.39±8.704	0.545	31.74±6.878	0.100
31–40	263 (55.23)	22.42±5.526,		11.45±3.940		8.85±1.978		2.12±0.424		35.94±6.698		47.83±9.509		30.66±8.135	
41–50	80 (16.95)	22.59±5.935		11.83±4.491		8.68±1.795		2.09±0.480		35.72±6.878		47.74±9.404		28.98±7.148	
51–57	20 (3.97)	26.68±9.123		14.53±6.670		9.74±2.469		2.42±0.961		35.84±6.780		46.74±7.629		31.37±8.261	
Education															
Technical secondary school	14 (2.93)	27.36±9.889	0.003	14.71±6.533	0.008	9.64±2.735	0.183	3.00±1.414	<0.001	32.43±5.626	0.333	46.79±6.807	0.759	29.93±8.905	0.032
Junior college	44 (9.21)	21.07±4.490		10.57±3.566		8.50±1.563		2.00±0.001		35.73±6.496		48.61±9.832		30.43±7.756	
Bachelor	404 (84.52)	22.18±5.482		11.33±3.918		8.75±2.013		2.10±0.461		35.41±6.999		47.27±9.336		30.49±7.622	
Master and above	16 (3.34)	21.44±2.988		11.25±2.887		8.19±0.403		2.00±0.001		33.88±5.084		48.63±6.662		36.25±7.707	
Marital status															
Single	31 (6.49)	19.90±2.675	<0.001	9.71±2.209	<0.001	8.10±0.396	<0.001	2.10±0.301	0.071	29.68±8.068	<0.001	43.65±7.653	0.190	34.23±8.289	0.022
In a relationship	46 (9.62)	21.76±5.404		10.93±2.932		8.65±2.893		2.17±0.902		34.98±6.628		48.00±8.664		31.80±6.649	
Married with no children	35 (7.32)	21.49±4.348		10.80±3.402		8.66±1.327		2.03±0.169		36.97±5.909		48.71±9.482		32.29±7.954	
Married with children	354 (74.06)	22.22±5.382		11.39±3.964		8.73±1.793		2.11±0.458		35.61±6.660		47.55±9.401		30.05±7.693	
Divorced or widowed	12 (2.51)	31.58±10.352		17.83±6.873		11.25±3.911		2.50±0.798		37.17±7.272		47.58±8.185		30.25±7.783	
Department															
Internal medicine	107 (22.38)	21.45±4.135	0.426	10.93±3.403	0.305	8.45±1.101	0.313	2.07±0.264	0.700	34.84±7.567	0.314	46.31±9.225	0.551	31.44±7.333	0.372
Major surgery	116 (24.27)	22.40±5.738		11.33±4.006		8.95±2.449		2.12±0.661		36.27±6.577		47.55±9.037		29.45±7.435	
Obstetrics, gynecology and pediatrics	51 (10.67)	22.88±6.101		11.71±4.201		9.00±2.254		2.18±0.623		34.80±6.264		46.75±9.273		30.63±8.345	
General department	97 (20.29)	21.94±6.084		11.01±3.978		8.77±2.153		2.15±0.486		34.48±6.736		47.93±8.833		31.05±8.387	
Other (non-clinical nursing positions)	108 (22.59)	21.21±5.574		11.95±4.396		8.64±1.740		2.09±0.466		35.69±6.818		48.27±9.802		30.86±7.042	
Working years															
<5 years	81 (16.95)	21.07±4.676	0.015	10.56±2.992	0.114	8.41±2.623	0.011	2.11±0.689	0.890	33.51±6.705	0.007	46.79±9.202	0.422	32.41±7.108	0.063
5–10 years	102 (21.33)	21.44±4.232		10.75±3.238		8.59±1.478		2.10±0.359		34.64±7.409		46.67±9.511		30.78±7.848	
>10 years	295 (61.72)	22.78±6.117		11.78±4.396		8.88±2.028		2.13±0.496		36.02±6.628		47.86±9.146		30.14±7.792	

Average monthly income															
<7000 Yuan	127 (26.57)	21.98±5.717	0.410	11.07±3.784	0.383	8.72±2.487	0.497	2.19±0.721	0.078	34.13±6.471	0.070	46.80±9.377	0.744	31.57±7.903	0.439
7000–10,000 Yuan	142 (29.71)	21.74±4.799		11.14±3.801		8.54±1.308		2.06±0.372		35.34±7.563		47.28±9.275		30.51±7.367	
10,001–15,000 Yuan	148 (30.96)	22.80±6.206		11.70±4.364		8.95±2.076		2.15±0.486		35.66±6.824		47.78±9.575		30.36±7.612	
>15,000 Yuan	61 (12.76)	22.33±5.331		11.59±3.917		8.70±1.783		2.03±0.180		36.80±5.767		48.18±8.018		29.84±8.405	
Partner education															
Technical secondary school	46 (9.62)	23.15±6.925	0.057	12.13±5.158	0.088	8.78±1.763	0.098	2.42±0.705	0.158	33.48±6.407	0.279	45.57±8.557	0.198	32.04±7.919	0.587
Junior college	113 (23.64)	23.04±6.415		11.80±4.245		9.09±2.681		2.16±0.689		35.67±6.649		46.43±9.729		30.51±7.517	
Bachelor	254 (53.14)	21.98±5.220		11.23±3.798		8.67±1.831		2.07±0.385		35.35±6.707		48.11±9.152		30.39±7.665	
Master and above	65 (13.00)	20.97±3.812		10.51±3.148		8.34±0.776		2.12±0.509		35.74±8.055		47.78±8.980		30.98±8.209	

https://doi.org/10.2147/JMDH.S461895

Table 2 Correlation Between Variables in the Study

Variables	IPV	Emotional IPV	Physical IPV	Sexual IPV	CD-RISC	Work Thriving	Work Alienation	Mean±SD
IPV	–							22.212±5.574
Emotional IPV	0.981**	–						11.354±3.991
Physical IPV	0.615**	0.488**	–					8.738±1.973
Sexual IPV	0.376**	0.341**	0.337**	–				2.117±0.509
CD-RISC	−0.113*	−0.130**	−0.032*	−0.109**	–			35.303±6.870
Work thriving	−0.095*	−0.092*	−0.050**	−0.066**	0.687**	–		47.421±9.231
Work alienation	0.168**	0.165**	0.076**	0.071**	−0.397**	−0.418**	–	30.660±7.722

Notes: *Means p <0.05, **Means p <0.01.

Mediational Analyses

Work Thriving

As shown in Table 3 and Figure 1, in model I,II, III, IV, the results of mediation analyses showed that the total effect of IPV, emotional IPV, sexual IPV on work thriving was significant (β = −0.127, −0.170, −1.108; all p <0.001). In model III, the results of mediation analyses showed that the total effect of physical IPV on work thriving was not significant (β = 0.006, p =0.954).

Table 3 Summary of Total, Direct and Indirect Effects of Four Mediation Model

Mediation Model	Standard Effect (95% CI)	p value
Model I		
IPV→Resilience	−0.102 (−0.137,-0.067)	0.025
Resilience→Work thriving	0.692 (0.649,0.735)	<0.001
Indirect effect 1	−0.117 (−0.230,-0.004)	0.021
Direct effect 1	−0.010 (−0.013,-0.007)	0.015
Total effect 1	−0.127 (−0.181,-0.073)	<0.001
Resilience→Work alienation	−0.367 (−0.383,-0.351)	<0.001
Indirect effect 2	0.052 (0.031,0.073)	<0.001
Direct effect 2	0.093 (0.080, 0.106)	<0.001
Total effect 2	0.145 (0.092,0.193)	<0.001
Model II		
Emotional IPV→Resilience	−0.102 (−0.105,-0.099)	0.025
Resilience→Work thriving	0.691 (0.648,0.734)	<0.001
Indirect effect 1	−0.163 (−0.165,-0.161)	0.014
Direct effect 1	−0.007 (−0.017,0.003)	0.069
Total effect 1	−0.170 (−0.179,-0.161)	<0.001
Resilience→Work alienation	−0.367 (−0.383,-0.351)	<0.001
Indirect effect 2	0.073 (0.055,0.091)	<0.001
Direct effect 2	0.096 (0.074,0.118)	<0.001
Total effect 2	0.169 (0.136,0.202)	<0.001
Model III		
Physical IPV→Resilience	−0.049 (−0.137,0.039)	0.284
Resilience→Work thriving	0.693 (0.650,0.736)	<0.001
Indirect effect 1	−0.159 (−0.488,0.211)	0.387
Direct effect 1	0.035 (−0.128,0.198)	0.287
Total effect 1	0.006(−0.492,0.439)	0.954
Resilience→Work alienation	−0.374 (−0.480,-0.268)	<0.001

(*Continued*)

Table 3 (Continued).

Mediation Model	Standard Effect (95% CI)	*p* value
Indirect effect 2	0.072 (−0.089,0.234)	0.363
Direct effect 2	0.064 (0.033, 0.095)	0.007
Total effect 2	0.322 (−0.020,0.709)	0.064
Model IV		
Sexual IPV→Resilience	−0.126 (−0.231,-0.021)	0.006
Resilience→Work thriving	0.695 (0.652,0.738)	<0.001
Indirect effect 1	−1.587 (−2.864,-0.718)	<0.001
Direct effect 1	0.026 (−0.137,0.189)	0.429
Total effect 1	−1.108(−1.174, −1.042)	<0.001
Resilience→Work alienation	−0.375 (−0.391,-0.359)	<0.001
Indirect effect 2	0.717 (0.312,1.341)	<0.001
Direct effect 2	0.190 (−0.020,0.030)	0.369
Total effect 2	0.907(0.136,1.678)	0.017

Notes: All models were controlled for covariates including age, education and marital status. All path coefficients shown were standardized.

Mental Resilience, Work Thriving

The results revealed a significant negative path coefficient between IPV, emotional IPV, and sexual IPV on resilience (path a: β = −0.102, p = 0.025; β = −0.102, p = 0.025; β = −0.126, p = 0.006, respectively). Furthermore, resilience exhibited a significant positive association with work thriving (path b1: β = 0.692, p < 0.001; β = 0.691, p < 0.001; β = 0.695, p < 0.001, respectively).

The examination of the indirect effects (path a × b1) demonstrated that the relationships between IPV, emotional IPV, and sexual IPV on work thriving were significantly mediated by resilience (indirect effects: β = −0.117, p = 0.021; β = −0.163, p = 0.014; β = −1.587, p < 0.001, respectively). The 95% bias-corrected bootstrap confidence intervals did not include zero, further supporting the statistical significance of these indirect effects (−0.230 to −0.004, −0.165 to −0.161, −2.864 to −0.718, respectively).

Additionally, the direct effect of IPV on work thriving (path c1: β = −0.010, p = 0.015) was significant, indicating that resilience partially mediated the relationship between IPV and work thriving. In contrast, the direct effects of emotional IPV and sexual IPV on work thriving (path c1: β = −0.007, p = 0.069; β = 0.026, p = 0.429, respectively) were not significant, suggesting that resilience fully mediated these relationships.

However, the path coefficient between physical IPV and resilience (path a: β = −0.049, p = 0.284) and the indirect effect (path a × b1) were not significant, indicating that the indirect effect of physical IPV on work thriving through resilience was not statistically significant. Furthermore, the direct effect of physical IPV on work thriving (path c1: β = 0.035, p = 0.287) was also not significant.

Work Alienation

The total effects of IPV, emotional IPV, and sexual IPV on work alienation were significant (β = 0.145, $p < 0.001$; β = 0.169, $p < 0.001$; β = 0.907, $p < 0.001$, respectively). The path coefficient between resilience and work alienation (path b2: β = −0.367, $p < 0.001$; β = −0.367, $p < 0.001$; β = −0.375, $p < 0.001$, respectively) was significant, indicating a positive association.

The examination of the indirect effects (path a × b2) revealed that the relationships between IPV, emotional IPV, and sexual IPV on work alienation were significantly mediated by resilience (indirect effects: β = 0.052, p < 0.001; β = 0.073, p < 0.001; β = 0.717, p < 0.001, respectively). The 95% bias-corrected bootstrap confidence intervals did not contain zero, further supporting the statistical significance of these indirect effects (0.031 to 0.073, 0.055 to 0.091, 0.312 to 1.341, respectively).

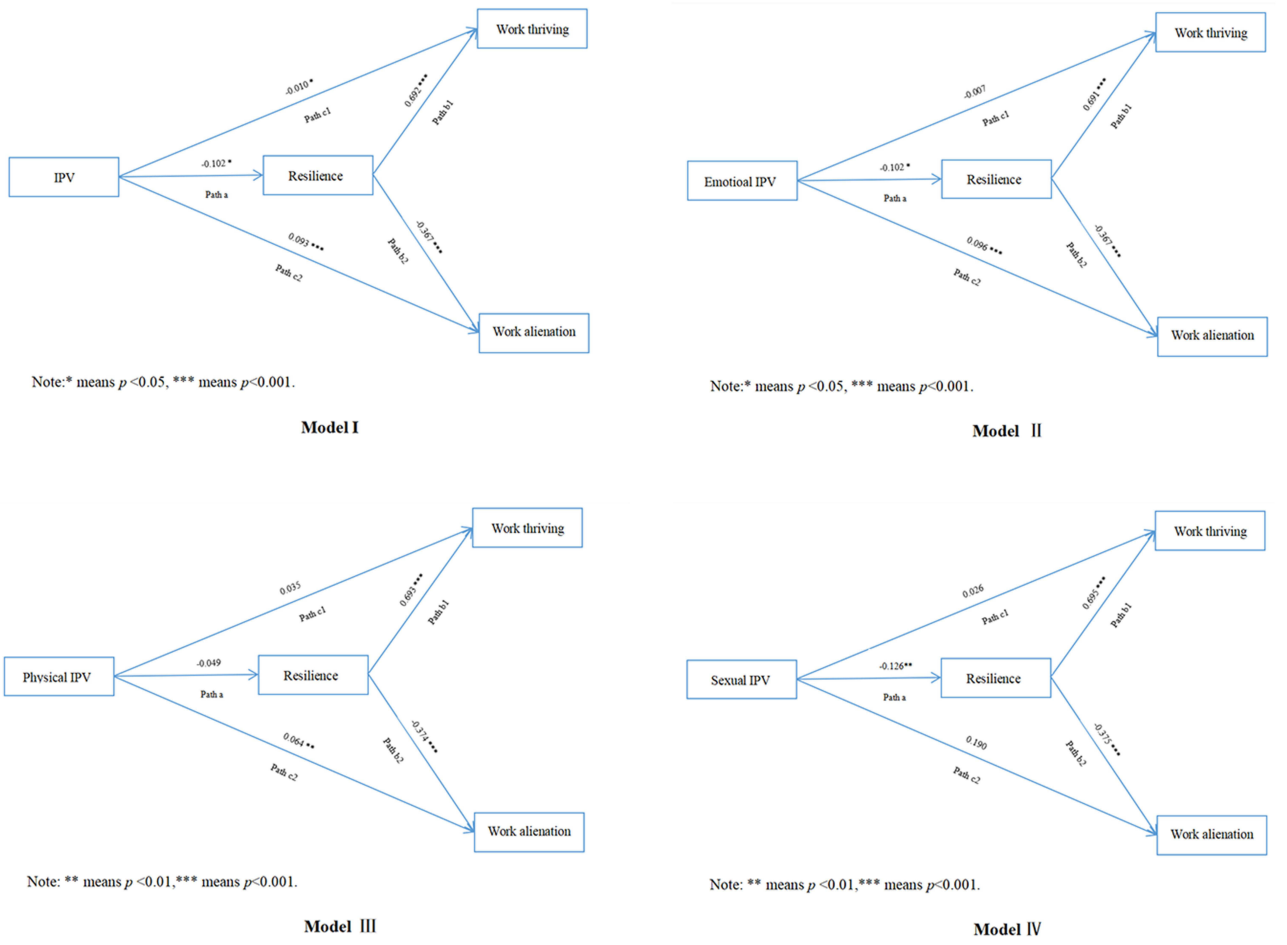

Figure 1 Mediation model of Resilience in the relationship between IPV victimization and work thriving/work alienation.

Additionally, the direct effects of IPV and emotional IPV on work alienation (path c2: β = 0.093, p < 0.001; β = 0.096, p < 0.001, respectively) were significant, indicating that resilience partially mediated these relationships.

The total effect of physical IPV on work alienation was not significant (β = 0.322, p = 0.064). The path coefficient between resilience and work alienation (path b2: β = −0.374, p < 0.001) was significant. The indirect effect (path a × b2) of physical IPV on work alienation through resilience was not statistically significant (β = 0.072, p = 0.363). However, the direct effect of physical IPV on work alienation (path c2: β = 0.064, p = 0.007) was significant.

Lastly, the direct effect of sexual IPV on work alienation (path c2: β = 0.190, p = 0.369) was not significant, suggesting that resilience fully mediated the relationship between sexual IPV and work alienation.

Model Fit

As shown in Table 4, the four models exhibited a satisfactory fit, as evidenced by the CFIs ranging from 0.951 to 0.954 and IFIs ranging from 0.952 to 0.954. The RMSEA values were all below 0.08, indicating an acceptable level of fit. Moreover, the c^2/dfs were all below 0.3, further supporting the goodness of fit for the models.

Discussion

IPV includes physical, sexual and psychological violence, occurs mainly among women. To date, studies on IPV have primarily focused on the prevalence of IPV, particularly IPV victimization,[3] intervention through IPV screening,[34] and nurses' perceptions and empathy towards IPV victims.[35] The objective of this investigation was to examine the prevalence of different types of violence among female nurses in China and to explore the relationship between

Table 4 Goodness-of-Fit of Hypothesized Structural Model

Models	CFI	IFI	RMSEA	X2/*df*	X2	df
Model I	0.953	0.953	0.075	2.37	2.37	1
Model II	0.954	0.954	0.070	2.41	2.41	1
Model III	0.951	0.952	0.078	2.87	2.87	1
Model IV	0.953	0.954	0.073	2.43	2.43	1

psychological resilience and nurses' work thriving and work alienation after experiencing IPV. Some scholars have also examined how married nurses balance work-family conflict[19] and the impact of IPV on their work status.[6,7] However, there has been limited exploration of the work-family issues experienced by female nurses who are victims of IPV. This study aims to address this gap in the literature.

Theoretically, the study's findings suggest that enhancing resilience could be an important strategy for supporting female nurses who have experienced IPV, given the significant relationships observed between resilience, work thriving, and work alienation. Management approaches targeting workplace resilience, such as implementing high-performance work systems, improving organizational practices, strengthening team cohesion, and providing cognitive-behavioral coaching, may help address the work-related challenges these nurses face.[16,36,37] However, the existing literature on this topic is somewhat fragmented, pointing to the value of adopting a more comprehensive theoretical framework, such as the self-determination theory, which highlights the fundamental human needs for relatedness, competence, and autonomy.[38] A study has also revealed that work engagement and communication skills act as mediators in the relationship between work-family conflict and nurses' ability to maintain job satisfaction, within the context of the job-demand-requirement (JD-R) model,[19] providing a work environment that meets individual needs for autonomy, competence and relatedness can improve intrinsic motivation,[39] balancing individual–organizational mismatch, organizational factors (eg, workload, control, reward, community, fairness, organizational values).[40] The empirical evidence from this study aligns with the principles of social exchange theory. Psychological resilience can serve as a crucial coping mechanism, intervening in the social exchange between organizations and nurses. By providing increased levels of social resources, enhancing resilience can enable female nurses experiencing IPV to develop greater resilience within their workplace. This enriches our understanding of the role of resilience, presenting an alternative theoretical explanation for the work outcomes observed.

The findings from this investigation may also hold practical implications for managing nurses in healthcare settings. Healthcare organizations are advised to prioritize the recruitment and selection of resilient candidates. Moreover, it is critical for healthcare organizations and nursing schools to actively develop and cultivate resilience among nurses and nursing students. By investing in programs and initiatives to bolster resilience, institutions can better support nurses, particularly those who have experienced IPV, in navigating the challenges they may face and thriving in their work.

Limitations

This study faced several key limitations. Firstly, the use of self-reported data may have been subject to biases, such as female nurses' potential shame or unwillingness to fully disclose their experiences. Recall bias is another concern inherent to self-reported measures. Secondly, the research design relied on correlational analyses between the work thriving scale and work alienation questionnaire. While suggestive of relationships, this approach has inherent limitations compared to more robust causal methodologies. Thirdly, due to resource constraints, the study employed a convenience sampling approach, which resulted in a limited sample. This may impact the generalizability of the findings. To address these limitations, future research should seek to extend the follow-up duration and utilize more representative sampling techniques, such as stratified sampling across different geographic regions and age groups. This would help improve the reliability and representativeness of the research results. Additionally, incorporating more rigorous experimental or longitudinal designs could provide stronger insights into the causal mechanisms underlying the relationships examined.

Conclusions

The theoretical and practical implications from this study may help to better understand the critical relationship between nurses' experiences of IPV, their resilience, work thriving, and work alienation in the context of Chinese public hospitals. The findings indicate that resilience was positively related to thriving at work and directly negatively related to work alienation, though there was also a partial mediating effect of resilience.

Chinese nurses who experience IPV appear to benefit from the coping utility of resilience, in terms of enhancing their psychological coping skills, adaptability, self-efficacy, social support, goal orientation, and motivation. Resilience can enable victims to more quickly adjust their emotions and behaviors in response to environmental changes, boost their sense of self-efficacy, and empower them to actively seek and leverage emotional and practical support from their social networks. Resilient individuals are also more motivated and goal-oriented, which can translate to greater effort and performance in the workplace.

To better support nurses who experience emotional violence, future research should focus on developing targeted intervention measures and incorporating relevant resources, such as contact information for social support services, health assessments, and guidance on traditional Chinese medicinal approaches. Previous studies suggest that IPV advocacy interventions can significantly reduce depression and milder forms of IPV (psychological and light physical violence, but not severe physical violence).

Building resilience in female nurses has the potential to improve their overall adjustment, help them balance work-family issues after IPV experiences, and increase their work thriving while reducing work alienation.

Data Sharing Statement

All data generated or analysed during this study are included in this article. Further enquiries can be directed to the corresponding author.

Acknowledgments

It is our pleasure to thank Dr. Hesketh & Dr. Yuan, Dr. Porath, Dr. Campbell-Sills, and Dr. Ye for their permission to use the scale, as well as all participants, investigators, and experts who assisted in this study.

Funding

No external funding is received to conduct this study.

Disclosure

The authors declare that they have no competing interests in this work.

References

1. Krug EG, Mercy JA, Dahlberg LL. The world report on violence and health. *Lancet*. 2002;360(9339):1083–1088.
2. WHO. Devastatingly pervasive: 1 in 3 women globally experience violence[EB/OL]; 2021. Available from: https://www.who.int/news/item/09-03-2021-devastatingly-pervasive-1-in-3-women-globally-experience-violence. Accessed May 24, 2024.
3. S L, Maheu-Giroux M, Stockl H, et al. Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. *Lancet*. 2022;399:10327.
4. Anikwe CC, et al. Burden of Intimate Partner Violence among Nurses and Nursing Students in a Tertiary Hospital in Abakaliki, Ebonyi State, Nigeria. *Sage Open Nurs*. 2021;7:23779608211052356. doi:10.1177/23779608211052356
5. Christofides NJ, Silo Z. How nurses' experiences of domestic violence influence service provision: study conducted in North-west province, South Africa. *Nursing & Health Sciences*. 2005;7(1):9–14. doi:10.1111/j.1442-2018.2005.00222.x
6. Bracken MI, Messing JT, Campbell JC, et al. Intimate partner violence and abuse among female nurses and nursing personnel: prevalence and risk factors. *Issues in Mental Health Nursing*. 2010;31(2):137–148. doi:10.3109/01612840903470609
7. Jack SM, Boyle M, McKee C, et al. Effect of Addition of an Intimate Partner Violence Intervention to a Nurse Home Visitation Program on Maternal Quality of Life: a Randomized Clinical Trial. *JAMA*. 2019;321(16):1576. doi:10.1001/jama.2019.3211
8. Zhai Y, Cai S, Chen X, et al. The relationships between organizational culture and thriving at work among nurses: the mediating role of affective commitment and work engagement. *J Adv Nurs*. 2023;79(1):194–204. doi:10.1111/jan.15443
9. Shdaifat EA, Al Amer MM, Jamama AA. Verbal abuse and psychological disorders among nursing student interns in KSA. *J Taibah Univ Sci*. 2020;15(1):66–74. doi:10.1016/j.jtumed.2019.12.007

10. Winkelmann J, Muench U, Maier CB. Time trends in the regional distribution of physicians, nurses and midwives in Europe. *BMC Health Serv Res*. 2020;20(1):937. doi:10.1186/s12913-020-05760-y
11. Yang T, Jin X, Shi H, et al. Occupational stress, distributive justice and turnover intention among public hospital nurses in China: a cross-sectional study. *Appl Nurs Res*. 2021;61:151481. doi:10.1016/j.apnr.2021.151481
12. Bamigboye TO, Irinoye OO, Ayandiran EO, et al. Influence of educational intervention on nurse-midwives' knowledge and management practices of Intimate Partner Violence (IPV) in healthcare Facilities in Ekiti-State, Nigeria. *Enferm Clin*. 2023;33(5):316–326.
13. Burnett C, Rawat E, Hooker L, et al. IPV nurse education: scoping things out to see who's doing what? *Nurse Educ Today*. 2022;115:105407. doi:10.1016/j.nedt.2022.105407
14. Ambikile JS, Leshabari S, Ohnishi M. Knowledge, attitude, and preparedness toward IPV care provision among nurses and midwives in Tanzania. *Hum Resour H*. 2020;18(1):56. doi:10.1186/s12960-020-00499-3
15. Labrague LJ. The impact of job burnout on nurses' caring behaviors: exploring the mediating role of work engagement and job motivation. *Int Nurs Rev*. 2023. doi:10.1111/inr.12899
16. Yun Z, Zhou P, Zhang B. High-Performance Work Systems, Thriving at Work, and Job Burnout among Nurses in Chinese Public Hospitals: the Role of Resilience at Work. *Healthcare*. 2022;10(10):1935. doi:10.3390/healthcare10101935
17. Obioha CU, Costa R, Del Pino Espejo MJ, et al. Intimate Partner Violence and Breastfeeding Behaviors: does the Source of Breastfeeding Information Affect the Associations Between Prepregnancy or Prenatal IPV and Breastfeeding Behaviors of Women in the United States? A PRAMS 2018 Study. *Breastfeed Med*. 2022;17(6):528–536. doi:10.1089/bfm.2021.0282
18. Cabrera-Aguilar E, Zevallos-Francia M, Morales-García M, et al. Resilience and stress as predictors of work engagement: the mediating role of self-efficacy in nurses. *Frontiers in Psychiatry*. 2023;14.
19. Huaman N, Morales-García WC, Castillo-Blanco R, et al. An Explanatory Model of Work-family Conflict and Resilience as Predictors of Job Satisfaction in Nurses: the Mediating Role of Work Engagement and Communication Skills. *J Primary Care Community Health*. 2023;14.
20. Beltrán-Morillas AM, Sánchez-Hernández MD, Herrera MC, et al. Self-Efficacy and Well-Being in Professionals Working in Intimate Partner Violence: recovery Experiences and Burnout as Associated Variables. *Psychol Rep*;2023. 332941231183331. doi:10.1177/00332941231183331
21. Sprague C, Woollett N, Parpart J, et al. When nurses are also patients: intimate partner violence and the health system as an enabler of women's health and agency in Johannesburg. *Global Public Health*. 2016;11(1–2):169–183. doi:10.1080/17441692.2015.1027248
22. McLindon E, Diemer K, Kuruppu J, et al. "You can't swim well if there is a weight dragging you down": cross-sectional study of intimate partner violence, sexual assault and child abuse prevalence against Australian nurses, midwives and carers. *BMC Public Health*. 2022;22(1):22. doi:10.1186/s12889-021-12350-y
23. Yuan W, Hesketh T. Intimate Partner Violence and Depression in Women in China. *J Interpersonal Violence*. 2021;36(21–22):NP12016–NP12040. doi:10.1177/0886260519888538
24. Straus MA, Hamby SL, boney-mccoy S, et al. The Revised Conflict Tactics Scales (CTS2): development and Preliminary Psychometric Data. *J Family Issues*. 1996;17(3):283–316. doi:10.1177/019251396017003001
25. Sheehan M, Hegarty KL, Schonfeld C. A multidimensional definition of partner abuse: development and preliminary validation of the Composite Abuse Scale. *Int Med*. 1999.
26. Porath C, Spreitzer G, Gibson C, et al. Thriving at work: toward its measurement, construct validation, and theoretical refinement: THRIVING AT WORK. *J Organizational Behav*. 2012;33(2):250–275. doi:10.1002/job.756
27. Ren XJ. *The Research on the Structure of Nurse's Work Alienation and Related Research.[D]*. Henan: Henan University; 2012.
28. Cui Y, Yang T, Gao H, et al. The relationship between ego depletion and work alienation in Chinese nurses: a network analysis. *Frontiers in Psychology*. 2022;13.
29. Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): validation of a 10-item measure of resilience. *Journal of Traumatic Stress*. 2007;20(6):1019–1028. doi:10.1002/jts.20271
30. Ye ZJ, Qiu HZ, Li PF, et al. Validation and application of the Chinese version of the 10-item Connor-Davidson Resilience Scale (CD-RISC-10) among parents of children with cancer diagnosis. *Eur J Oncol Nurs*. 2017;27:36–44. doi:10.1016/j.ejon.2017.01.004
31. Kline RB. *Principles and Practice of Structural Equation Modeling*. Guilford publications; 2022.
32. Hooper D, Coughlan J, Mullen MR Evaluating model fit: a synthesis of the structural equation modelling literature. Proceedings of the 7th European Conference on research methodology for business and management studies[C]. Technological University Dublin, 2008.
33. Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct Equ Modeling*. 1999;6(1):1–55. doi:10.1080/10705519909540118
34. Coker AL, Follingstad D, Garcia LS, et al. Association of Intimate Partner Violence and Childhood Sexual Abuse with Cancer-Related Well-Being in Women. *J Women's Health*. 2012;21(11):1180–1188. doi:10.1089/jwh.2012.3708
35. Voth Schrag RJ, Wood LG, Wachter K, et al. Compassion Fatigue Among the Intimate Partner Violence and Sexual Assault Workforce: enhancing Organizational Practice. *Violence Against Women*. 2022;28(1):277–297. doi:10.1177/1077801220988351
36. Smaliukienė R, Bekesiene S, Mažeikienė A, et al. Hair Cortisol, Perceived Stress, and the Effect of Group Dynamics: a Longitudinal Study of Young Men during Compulsory Military Training in Lithuania. *Int J Environ Res Public Health*. 2022;19(3):1663. doi:10.3390/ijerph19031663
37. Heikel AR, Rankin JA, Then KL. Intimate partner violence: a practice development issue for orthopaedic nurses. *Int J Orthop Trauma Nurs*. 2023;48:100998. doi:10.1016/j.ijotn.2023.100998
38. Deci EL, Ryan RM. The "What" and "Why" of Goal Pursuits: human Needs and the Self-Determination of Behavior. *Psychol Inq*. 2000;11(4):227–268. doi:10.1207/S15327965PLI1104_01
39. Baard PP, Deci EL, Ryan RM. Intrinsic Need Satisfaction: a Motivational Basis of Performance and Weil-Being in Two Work Settings1. *J Appl Social Psychol*. 2004;34(10):2045–2068. doi:10.1111/j.1559-1816.2004.tb02690.x
40. Kameg BN, Constantino R. Intimate partner violence in adolescents: preventive strategies for psychiatric-mental health nurse practitioners. *J Child Adolesc Psychiatr Nurs*. 2020;33(3):163–168. doi:10.1111/jcap.12286