

RESEARCH ARTICLE

Work engagement, emotional disorders and conflict management styles in paediatric nurse: A mediating effect model

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Abstract

Aim: The mediating role of emotional disorders between conflict management styles and work engagement was explored based on constructing structural equation models in paediatric nurses.

Design: A cross-sectional study.

Methods: According to a cross-sectional survey, 300 paediatric nurses were selected from three tertiary hospitals (Chang sha, China), the data were collected using demographic questionnaires, the Rahim Organizational Conflict Inventory-II, Depression, Anxiety and Stress Scales and the Utrecht Work Engagement Scale. The Structural Equation Model was employed to investigate the mediating role of emotional disorders between conflict management styles and work engagement.

Results: Among conflict management styles, emotional disorders and work engagement, the associations were all significant ($p < .05$). In the mediation models, emotional disorders partially mediate the relationships between conflict management styles and work engagement (indirect effect 0.095, $p < .01$; direct effect -0.330 , $p < .01$; total effect -0.330 , $p < .01$) and between conflict management styles and work engagement (indirect effect 0.095, $p < .01$; direct effect 0.329, $p < .01$; total effect 0.424, $p < .01$).

KEYWORDS

conflict, emotional disorders, nurses, paediatric, work engagement

1 | INTRODUCTION

Work engagement, a type of state with work-related, is defined as “a positive, fulfilling state of mind about work.” In the nursing profession, work engagement is characterized by vigour, dedication and absorption (Mukaihata et al., 2022). Vigour usually refers to strong energy, effort, enthusiasm and persistence when faced with difficulties at work (Wijngaards et al., 2022). Dedication is commonly pointed out as high levels of involvement in work and a sense of

significance, challenge, pride and inspiration (Zhang et al., 2021). As for work engagement, absorption is mostly characterized by being totally engrossed in the work, which makes workers feel time passes quickly (Hetzl-Riggin et al., 2019). Some studies show that only 44% of hospital employees in the US feel highly engaged at work (Sherwood, 2013), and nurses on average have lower levels of work engagement than the US hospital employees (Blizzard, 2005). These trends are worrying because Kenneth Z. Wee et al conducted a meta-analysis and found that work engagement is important in

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predicting quality of care (Wee & Lai, 2022), including medical errors (Tsigas et al., 2017), professional cognition (Cao et al., 2020) and patient satisfaction (De Simone et al., 2018). Paediatric nurses need to take care of some children as a special population in the medical system, the stress and overwork of paediatric nurses may directly affect their work engagement and the quality of care for patients and their families. However, there is a lack of literature research on the work engagement of paediatric nurses so far, more attention should be paid to the work engagement of paediatric nurses.

The impact of conflict management styles and depression, anxiety, stress on work engagement is gaining attention. Conflict is inevitable during work, and the increasing prevalence of conflict has gradually become a work stress for paediatric nurses due to the nature of the paediatric department. The conflict management style adopted by nurses may directly affect the nurse–patient relationship, and may directly affect the level of work stress (Gokoglan & Ozen Bekar, 2021). Particularly, a conflict which exists between two or more individuals may consume considerable amounts of nurses' time and create an atmosphere of concealment that weakens work engagement. Several researches show that conflict may reduce the effectiveness of treatment, even accelerating absenteeism and turnover rate and lowering inter-professional collaboration, coordination and efficiency in paediatric nurses (Akanji et al., 2018; Gokoglan & Ozen Bekar, 2021; Labrague et al., 2018; Parsons & Darlington, 2021). Therefore, head nurses or other nursing managers need to carefully evaluate how nurses deal with these conflicts in order to develop effective conflict management strategies. To achieve this, being clear about conflict management styles is a key strategy.

The conflict management styles were first proposed by Rahim (1983), which includes five management styles for handling conflict, including: integrating, obliging, dominating, avoiding and compromising. The conflict models were adopted to provide a way of conceptualizing strategies and facilitating resolution, in which conflict involving the process by two or more people perceive opposition to another person. Thomas–Killman's two-dimensional model (Dunnette & Hough, 1992) proposes that assertiveness and cooperation need to be balanced, which includes collaboration, competition, accommodation, avoidance and compromise. Collaboration is a win-win orientation, each person or group reaches a full solution with equal concern while competition is a win-lose orientation, each person or group tries to gain complete dominance. The opposite of competition is accommodation, which means a high level of cooperation and a low level of confidence. Avoidance is to deny a person, a problem or a situation. The person or group utilizing the conflict models approach ignores conflict is not a positive solution, whereas in the strategy of compromise, there is a negotiation between both parties. In this process, everyone will gain something and lose some things at the same time (Andriopoulou et al., 2021).

In recent years, China faces the challenges of “the second child” and “three-child” policy since 2016, the particularity of patients and the shortage of nursing staff make the in-service nurses under high-stress levels. The high incidence of stress frequently occurred in paediatric nurses also due to many other sources of stressors,

including challenging work environments, highly pressured working conditions, and complex patient relationships with demanding family members (Fang & Feng, 2015; Zhang et al., 2012). Interestingly, Başoğul et al. found that higher levels of stress originated from some important sources of conflict in nursing settings are limited staff resources in hospitals (Başoğul & Özgür, 2016). More importantly, stress and stressful life events constitute a risk for depression and anxiety disorders (Ebner & Singewald, 2017). Furthermore, recent research demonstrates that psychological stress levels were negatively correlated with work engagement (González-Gancedo et al., 2019; Zhang et al., 2021). Specifically, work engagement is more likely to be the antecedent for symptoms of depression and (Hakanen & Schaufeli, 2012) results found that the levels of depression and anxiety could be downregulated by vigour over 2 years.

Taken together, few researches were conducted to investigate the association of emotional disorders (depression, anxiety and stress) with work engagement and conflict management styles in paediatric nurses. In this study, we hypothesized that conflict management styles affect the work engagement of paediatric nurses through direct/indirect mediating effects and aimed to assess the mediating role of emotional disorders between conflict management styles and work engagement.

2 | METHODS

2.1 | Design

This study was designed as a cross-sectional study aimed at exploring the mediating role of emotional disorders between conflict management style and work engagement to paediatric nurses in three hospitals in Changsha Province.

2.2 | Participants and settings

This study contained three tertiary hospitals in urban areas of Changsha, China. The paediatric nurses from the Paediatric Outpatient and Emergency, Paediatric Ward, Neonatal Intensive Care Unit, Paediatric Intensive Care Unit and Child Care Centre invited to participate in this study answered the questionnaires in an online survey. By convenience sampling, we included paediatric nurses who had obtained professional certificates and were independently responsible for work, and excluded paediatric nurses receiving standardized training or further study or on vacation. In total, 314 responses were collected, and we analysed 300 (95.5%) after excluding 14 incomplete responses. The study was conducted from March to May 2021.

2.3 | Instruments

2.3.1 The Rahim Organizational Conflict Inventory-II (ROCI-II)

Rahim Organizational Conflict Inventory-II (ROCI-II) compiled by American scholar Rahime in 1983 (Rahim., 1983), is to measure

the nurses' predominant conflict management styles they usually use during interaction with their patients. The Chinese version of the scale was translated and revised by Su (2005). It consists of 21 items and five dimensions: dominating, avoiding, obliging, compromising and integrating, among which there are five items in dominating, three items in avoiding, five items in obliging, three items in compromising and five items in integrating. Each item with a 5-point Likert-type response scale (5 = strongly agree to 1 = strongly disagree) to measure the conflict-handling behaviours. A higher score indicates the greater use of the style in conflict situations. In previous studies in China, the reliability of the five dimensions of domination, avoiding, obliging, compromising and integrating in this scale were 0.73–0.75, 0.77–0.81, 0.72–0.74, 0.72–0.86 and 0.72–0.94, respectively (Liang, 2016; Zhang, 2011). In this study, Cronbach's alphas for the total score and dominating, avoiding, obliging, compromising and integrating were 0.94, 0.83, 0.82, 0.86, 0.77 and 0.86, respectively.

2.3.1 | Depression, Anxiety and Stress Scales (DASS-21)

Depression Anxiety and Stress Scales (DASS-21) is a measure of psychological distress to assess depression, anxiety and stress (Jovanovi et al., 2019). In this study, we use the Chinese Short Version of Depression Anxiety and Stress Scale (Nie et al., 2013), which is a reliable and valid instrument and is suitable for the use of nursing staff. Three sub-scales comprise seven items each, with a total of 21 items. Participants indicate the extent to which they agree with each statement on a 4-point scale, ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). Scores of three sub-scales are to add sub-scale entries 7 and multiply them by 2 (0–42), and total scores are the sum of the three sub-scales (Gong, 2011), with higher scores indicating higher-level psychological distress (Marazziti et al., 2021). The three sub-scales have excellent validity and internal consistency: depression ($\alpha = .97$), anxiety ($\alpha = .92$) and stress ($\alpha = .95$) (Arness & Ollis, 2022), and the test–retest validity of depression, anxiety and stress reported by Samani and Jokar in Iran were 0.80, 0.76 and 0.77 (Zakeri et al., 2021), respectively. In our study, Cronbach's alphas for the total score and the depression, anxiety and stress sub-scales were 0.97, 0.91, 0.91, 0.91, respectively.

2.3.2 | Utrecht Work Engagement Scale (UWES)

Work engagement was assessed using the Utrecht Work Engagement Scale (UWES) developed by Schaufeli et al. (2013) (Petrović et al., 2017). In this study, the Chinese version by Yiwen Zhang (Yi-wen & Yi-qun, 2005) was adopted. UWES is a self-reported scale for evaluating engagement at work. This 15-item scale contains three dimensions that measure dedication, vigour, and absorption. The dedication comprises four items that measure how emotionally connected the employee is to the task. The vigour comprises six items that evaluate performance on tasks and show the levels of energy and vitality in.

Finally, the absorption section consists of five items that assess the degree to which an individual is engaged and engaged in a task. All items use 7-point Likert (0 = never; 6 = always), higher scores indicate a higher level of work engagement. The mean score of work engagement was computed by dividing the sum by the number of items involved. The UWES has been proven to have good reliability and validity in China, the test–retest reliability was 0.78 (Xiong, 2019). The Cronbach's α of the scale was 0.944 (Lyu et al., 2020). In this survey, Cronbach's α for the work engagement scale was 0.96, and dedication, vigour, absorption were 0.92, 0.87, 0.86.

2.4 | Data collection

We collected the data through an online survey via WeChat (a social media in China), and the questionnaire was stored in Wen Juan Xing (a platform providing functions equivalent to Amazon Mechanical Turk) where responses to the survey are automatically uploaded. Questionnaires were answered through either mobile phone or computer only once. Demographics, work characteristics, ROCI-II, UWES and DASS-21 were collected from participants. Researchers send a questionnaire to head paediatric nurses from different hospitals across Changsha and help spread the questionnaire to their nurses. Paediatric nurses were told that their participation was voluntary and would remain anonymous, and that data would be kept confidential.

2.5 | Data analysis

IBM SPSS v22.0 and Amos 21.0 were used in this study. participants' characteristics were examined by descriptive statistics. The correlations among work engagement, conflict management styles and DASS-21 were analysed by Pearson's correlation coefficient. Structural Equation Modelling was used to test the hypothesized structural relationships of work engagement between conflict management styles and DASS-21. We ran 2000 bootstrap resamples to test the direct and indirect effects, respectively. Finally, the model fit was assessed based on several criteria: RMSEA = root mean square error of approximation, GFI = goodness of fit index, AGFI = adjusted goodness of fit index, CFI = comparative fit index, PGFI = parsimonious goodness-fit-index, PNFI = parsimonious normed fit index. A good model yields an RMSEA lower than 0.05 or at most 0.08, and GFI, AGFI, CFI higher than 0.90, PGFI and PNFI higher than 0.50. The significance level for all tests was set at $p < .05$.

3 | RESULTS

3.1 | Participant characteristics

A total of 298 (99.3%) female and 2 (0.7%) male paediatric nurses participated in the study. A total of 228 were married (76.0%), and 72 were single (24.0%). The mean age and work experience were

32.8±6.4 and 11.5±6.6 years, respectively. Among the paediatric nurses, 52(17.3%) had completed junior college or below, and 248(82.7%) had completed undergraduate and above studies (Table 1).

3.2 | Descriptive statistics

Means, standard deviations and Pearson's correlation of all study variables are provided in (Table 2). Significant correlations were found in the study variables (conflict management styles, emotion disorders and work engagement). The conflict management styles and its five dimensions were significantly correlated with the use of emotion disorders symptom ($r = -.281$), depression ($r = -.288$), anxiety ($r = -.252$) and stress ($r = -.274$). Conflict management styles (dimensions) depicted a strong correlation with work engagement and dimensions. Meanwhile, the result shows that emotional disorders (depression, anxiety and stress) had a significant correlation with work engagement. To sum up, all variables were significantly correlated.

3.3 | Mediation analysis

Tables 3 and 4 present the results from the AMOS software. As shown in Table 3, it is concluded that the initial model, and to compare the fitting result and adapter standard, then according to the results of model correction indexes MI (Modification Index), and initial model for a series of corrections. Thus, the result of the analysis of the corrected model (Model 2) was chosen as the better model (Figure 1), which presented adequate and acceptable fitness (Table 3). As (Table 4) shown, the results indicated conflict management styles indirectly affected work engagement through emotional disorders, and the mediating effect of emotional disorders was significantly positive (indirect effect = 0.095, $p < .01$). Meanwhile, conflict management styles also had a direct positive effect on work engagement (direct effect = 0.329, $p < .01$). The total effect was 0.424 ($p < .01$). Thus, as shown in Figure 1 and Table 4, emotional disorders had a partial mediating effect, which accounted for 22.41% of the variance in work engagement. Conflict management styles had a direct significantly negative effect (direct effect = -0.289, $p < .01$) on emotional disorders, emotional disorders also had a direct negative effect on work engagement (direct effect = -0.330, $p < .01$).

4 | DISCUSSION

4.1 | Direct effect of conflict management styles on work engagement among paediatric nurses

The study results showed that the highest scores were integrating dimension, the second highest scores were compromising and the lowest scores were dominating, indicating that paediatric nurses are

TABLE 1 Characteristics of the participants (N = 300)

Variable	N (%)	Mean ± SD
Gender		
Female	298 (99.3)	
Male	2 (0.7)	
Age (years)		
20–25	42 (14.0)	32.8 ± 6.4
26–30	65 (21.7)	
31–35	100 (33.3)	
>36	93 (31.0)	
Working experience (years)		
≤5	56 (18.7)	11.5 ± 6.6
6–10	85 (28.3)	
11–15	87 (29.0)	
16–20	45 (15.0)	
21–25	16 (5.3)	
≥26	11 (3.7)	
Education		
Junior college and below	52 (17.3)	
University and above	248 (82.7)	
An only child		
Yes	45 (15.0)	
No	255 (85.0)	
Marital status		
Married	228 (76.0)	
Single	72 (24.0)	
Have child		
Yes	224 (74.7)	
No	76 (25.3)	
Department		
Paediatric Outpatient and Emergency	90 (30.0)	
Paediatric Ward	128 (42.7)	
Neonatal Intensive Care Unit (NICU)	41 (13.7)	
Paediatric Intensive Care Unit (PICU)	24 (8)	
Child Care Centre	17 (5.7)	
Technical title		
Nurse	30 (10)	
Senior nurse	93 (31)	
Supervisor nurse	160 (53.3)	
Chief nurse	16 (5.3)	
Co-chief nurse	1 (0.3)	
Monthly income (RMB)		
<5,000	35 (11.7)	
5,000–10,000	198 (66.0)	
≥10,000	67 (22.3)	

TABLE 2 Descriptive statistics and correlation among variables (N = 300).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Conflict management style	1													
2 Emotional disorders	-.0281**	1												
3 Work engagement	.418**	-.0410**	1											
4 Dominating	.814**	-.0124*	.336**	1										
5 Avoiding	.798**	-.0175**	.283**	.618**	1									
6 Obliging	.918**	-.0263**	.370**	.643**	.731**	1								
7 Compromising	.870**	-.0305**	.378**	.552**	.597**	.799**	1							
8 Integrating	.863**	-.0346**	.404**	.546**	.544**	.749**	.836**	1						
9 Vigour	.376**	-.0415**	.959**	.294**	.259**	.333**	.341**	.367**	1					
10 Dedication	.425**	-.0419**	.948**	.334**	.291**	.368**	.393**	.420**	.863**	1				
11 Absorption	.404**	-.0337**	.951**	.340**	.267**	.364**	.356**	.378**	.855**	.871**	1			
12 Depression	-.0288**	.968**	-.0421**	-.0109*	-.0181**	-.0275**	-.0323**	-.0362**	-.0439**	-.0416**	-.0343**	1		
13 Anxiety	-.0252**	.972**	-.0363**	-.0128*	-.0147*	-.0231**	-.0264**	-.0309**	-.0364**	-.0371**	-.0301**	.910**	1	
14 Stress	-.0274**	.958**	-.0405**	-.0123*	-.0180**	-.0257**	-.0299**	-.0329**	-.0398**	-.0431**	-.0333**	.902**	.887**	1
Mean	65.32	32.107	63.963	2.793	2.93	3.095	3.371	3.396	26.583	16.413	20.967	10.4	10.907	10.8
Standard deviation	13.956	25.259	20.794	0.828	0.816	0.747	0.754	0.752	8.62	6.11	7.08	9.234	9.049	7.858

Note: * $p < .05$; ** $p < .01$.

TABLE 3 Fit indices for each model

Model	χ^2	Df	χ^2/df	RMSEA	GFI	TLI	CFI	IFI
Model 1	177.193	41	4.322	0.105	0.895	0.943	0.958	0.958
Model 2 (Modified Model 1)	114.253	40	2.856	0.079	0.938	0.968	0.977	0.977

Note: A good model yields an RMSEA lower than 0.05 or at most 0.08, and GFI, TLI, CFI, IFI higher than 0.90.

Abbreviations: CFI, comparative fit index; GFI, goodness of fit index; IFI, Incremental Fit Index; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

TABLE 4 Bootstrapping the total effect, indirect effects, direct effect for the meditational model.

Model path ways	Total	Direct	Indirect	Estimate	95% CI Lower upper	
Conflict management style→emotional disorders	-0.289	-0.289	0.000	-0.289**	-0.385	-0.184
Emotional disorders→Work engagement	-0.330	-0.330	0.000	-0.330**	-0.445	-0.220
Conflict management Style→Work engagement	0.424	0.329	0.095	0.424**	0.295	0.529

Note: ** $p < 0.01$.

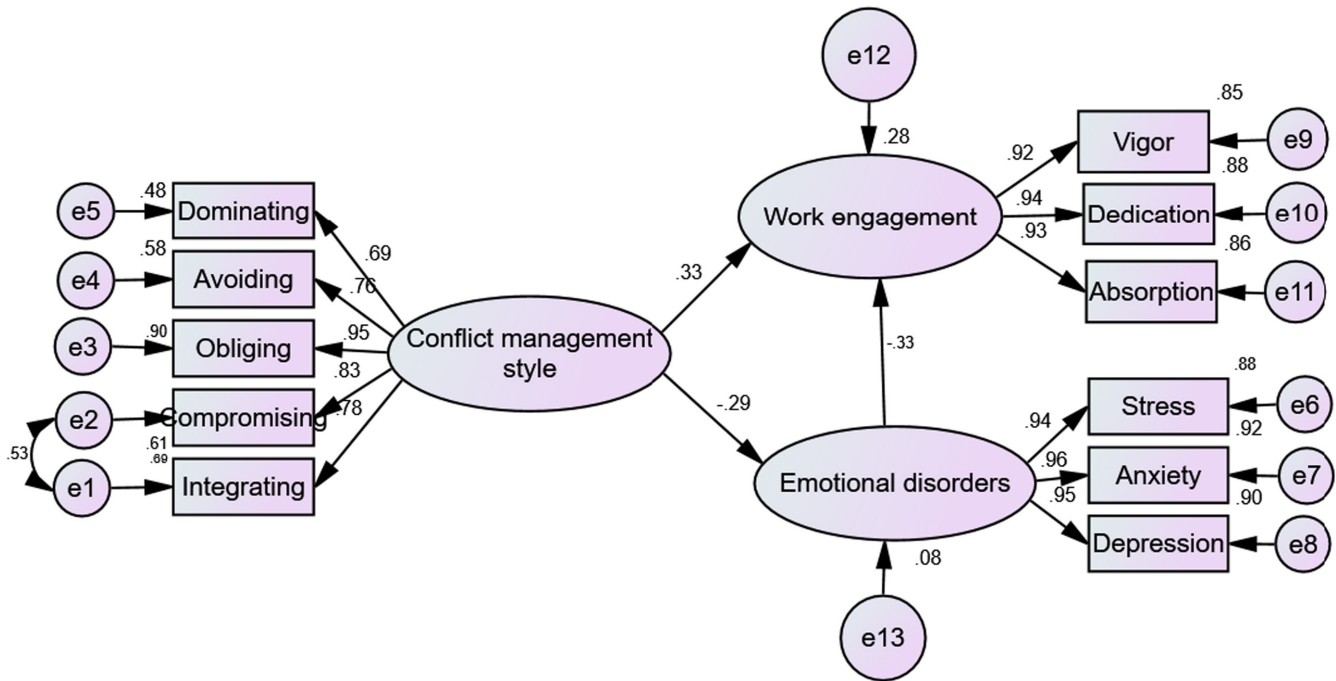


FIGURE 1 The finalized structural model (N = 300). Note: Factor loadings are standardized.

more likely to adopt integrating management styles to handle conflicts with patients, this pattern of result coincides with the result of a previous study (Tai et al., 2017). Integrating, a win-win way of dealing with the conflict, also known as collaboration refers to a high level of concern for oneself and others, where both parties think and resolve the problem collectively and eventually reach a consensus. The study also identified that avoiding, low concern for oneself and others, is the primary and major conflict management styles showing an indifferent attitude or presenting withdrawal and repression in the face of conflict which is different from those of other studies (Kaitelidou et al., 2012). The current studies distinct from other studies are as

follows: First, the doctors, nurses and other medical personnel were all in children's hospitals. Moreover, the paediatric nurses investigated in this study include a paediatric ward, Neonatal Intensive Care Unit, Paediatric Intensive Care Unit and Child Care Center, which may encounter various conflicts differently. Paediatric nurse, who aims to solve problems and puts the child's family and herself on the same footing, rich in a high sense of responsibility and love. When conflict occurs with the child's family, paediatric nurses are willing to solve the problem as soon as possible, thereby the nurse can quickly enter the work state and improve the work engagement which makes the child and the child's family feel valued and cared for. Second, Chinese

culture advocates harmony and paediatric nurses usually adopt an integrating management style in dealing with conflicts to maintain harmony. In contrast, Western culture exalts individuality and pursues the priority of the individual that western culture influenced by this cultural characteristic may choose to avoid when dealing with conflict. The cultural differences between East and West have played a part here. Although conflict avoidance temporarily ameliorates conflict escalation, it does not resolve the problem actually. However, integration can achieve a win-win situation, and both sides need to solve their problem via collaboration. The result of structural equation modelling shows that conflict management styles are positively related to work engagement, which is consistent with the findings of Esbati and Korunka (2021). The cooperative management style is an appropriate and effective way to address conflict since it could mitigate the negative effects of emotional exhaustion on work engagement. Based on these results, the negative impact of conflict on work engagement was significantly reduced by applying a collaborative conflict management approach in the increased conflict situations. Therefore, to ease the conflict, the managers will enhance the training of paediatric nurses in conflict management skills to improve paediatric nurses' work engagement and the quality of care.

4.2 | Indirect effects of paediatric nurses' conflict management styles on work engagement through emotional disorders

Research indicates that the conflict management style is closely related to work engagement, but only a simple direct relationship between the two before, which does not reflect the causality and complexity between these phenomena (Luo et al., 2021). However, this study showed that conflict management styles were negatively related to emotional disorders and emotional disorders also negative correlation with work engagement (vigour, dedication and absorption), while conflict management styles indirectly influenced work engagement through emotional disorders which is consistent with the findings of Luo et al. (2021). One possible explanation for this pattern of results is that paediatric nurses need to take care of children, who are susceptible fearful and anxious in the face of various treatment activities, and at the same time, paediatric nurses face work environment, work object and work intensity are very different from adult departments, unlike adult patients, conflict easily occurs due to high levels of expectation from paediatric family members which increase the nurses' work stress and lead to emotional disorders and lower work engagement (Pérez-Fuentes et al., 2018; Yuanyuan & Jianjun, 2020). Thus, conflict is inevitable and gradually becomes work stress for paediatric nurses during the paediatric nurses' work, which requires paediatric nurses to possess comprehensive ability and quality. Previous work has shown that conflict generally causes frustration, low job satisfaction, high turnover rates, patient safety issues, poor patient prognosis and low work engagement which is perceived as a negative behaviour (Akanji et al., 2018; Appelbaum et al., 2022; Yang & Chen, 2020). Meanwhile, the growing prevalence of conflict demands paediatric

nurses to handle conflict is essential in the face of pressure from several families of children and the high intensity of work (Tai et al., 2017). Therefore, it is critical to analyse the effect of conflict management style on work engagement and to identify the direct or indirect influences of conflict management style on work engagement. The study results suggested that paediatric nurses' work engagement would be improved by giving timely emotional or instrumental support.

5 | LIMITATIONS

Although the results of this study are significant, there are several limitations. First of all, the sample size is small, and this study concentrate on just exploring three tertiary hospitals in the urban areas of Changsha, China. Second, is also very important, nurses in Paediatric Outpatient and Emergency, Paediatric Ward, Neonatal Intensive Care Unit, Paediatric Intensive Care Unit and Child Care Centre were not classified by department, because each department of paediatrics nurses faces different intensity of work, working environment, conflict, may have been affected work engagement. In the future, nurses can be classified according to the department, to analyse the association of conflict management style, emotional disorders and work engagement, and formulate targeted intervention strategies and programs according to the results. Third, in view of COVID-19, we have to take the online questionnaires, although each respondent voluntarily informed consent to participate in this study. However, the participants through the mobile phone, computer or a tablet to fill out the questionnaire to complete it, which may lead to common method variance that could cause measurement errors that either inflate or deflate the relationship, as in this study Cronbach's alphas on the high side.

6 | CONCLUSION

Conflict management styles play a significant role in regulating the level of paediatric nurses' work engagement. The study demonstrated that work engagement was directly or indirectly affected by conflict management styles, especially emotional disorders significantly reduced the work engagement of paediatric nurses. To increase the work engagement status of paediatric nurses, the appropriate conflict management styles should be adopted to deal with conflicts. Moreover, further research should provide training on appropriate conflict management approaches for different conflict types to reduce emotional disorders and increase work engagement among paediatric nurses to compensate for the limitations of the depth of work engagement slightly employed in the study.

7 | IMPLICATIONS FOR NURSING MANAGEMENT

The quality of paediatric nurses' care and the prognosis of children's diseases are critically affected by work engagement status, and

nursing managers can improve paediatric nurses' conflict management skills by providing training courses on conflict management. Paediatric nurses, a special group, have differentiated characteristics of engagement, thus conflict management training should be tailored. Such training content can quickly and effectively manage conflict to the satisfaction of the child and family, while ensuring that paediatric nurses are physically and mentally healthy and able to engage in their work faster.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>)]:

- Substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- Drafting the article or revising it critically for important intellectual content.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

ETHICAL APPROVAL

Before being permitted to participate in the study, participants were informed of the purpose of the research, the meaning and data security. In addition, participation was voluntary and anonymous, they were informed of their rights and responsibilities and that they had the right to withdraw from participation at any time. There is no conflict of interest and this study did not benefit from any funds or financial support. This research is not conducted as a clinical trial, and thus, there was no need for codes of ethics.

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