

## RESEARCH ARTICLE

# Employability, organizational commitment and person–organization fit among nurses in China: A correctional cross-sectional research

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## Abstract

**Aim:** This study aimed to explore the effect of training on organizational commitment, the mediating effect of employability and the moderating role of person–organization fit.

**Design:** A correctional cross-sectional research design was adopted for this study.

**Methods:** A questionnaire-based survey of 859 nurses in a public hospital in Western China was conducted to identify their perceptions of training, employability, organizational commitment and person–organization fit. Hierarchical linear regression and conditional process analysis on moderated mediation were performed.

**Results:** Training had a positive effect on organizational commitment ( $p < .01$ ). Internal and external employability mediated the relationship between training and organizational commitment ( $p < .01$ ). Person–organization fit enhanced the indirect effect of training on organizational commitment through external employability ( $p < .05$ ).

## KEYWORDS

employability, moderated mediation, nurse training, organizational commitment, person–organization fit

Wei Yan, Xingqu Wu, Huan Wang contributed equally to this work.

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## 1 | BACKGROUND

The shortage of nurses has represented an important challenge worldwide. These shortages have seriously affected the quality of medical and healthcare work. Public hospitals in China have faced enormous pressure on their nursing resources, in terms of the shortage of total personnel number, the need to enhance overall educational level, the problem of high turnover intention and the need to improve occupational social identity (Su et al., 2018). However, public hospital investment in the training of nursing staff often seems to have contributed to the increased departure of talented nurses (Ebi et al., 2019; Li et al., 2019). Therefore, the question of how human resource departments in public hospitals could improve the employability of nursing staff while maintaining their organizational commitment demands attention.

Numerous researchers have explored the relationships among employability, training and organizational commitment. Employability should be understood as a person's ability to be employed and not only based on actual employment (Higgs et al., 2019). Some have argued that training, which could improve employability (Snydrova et al., 2020), would promote increased job satisfaction (Popescu & Roman, 2018). Job satisfaction has been linked to enhanced organizational commitment that would address the problem of turnover (González-Romá et al., 2016; Peng et al., 2019). However, other researchers have demonstrated that employees were more likely to leave an organization after having received training if their salaries were not increased (Leider et al., 2021). Moreover, improving employees' employability usually demands an initial investment in the cost of training.

Minimal research has explored the impact of employability on organizational commitment from different dimensions. Characteristics have varied among different work sites. Consequently, the requirements of improving people's employability internally could vary statistically significantly (Zhu & Hu, 2014). Second, greater controls of the distinct employability contexts that affect organizational commitment could be improved through an identification of the key variables that modify the impact of employability on organizational commitment. Previous studies have documented the moderating effect of employee expectations with regard to employability on organizational commitment (Ling et al., 2014). However, no research has explored this issue from the perspective of person-organization fit (P-O fit). P-O fit is used to describe a situation in which an employee's values are aligned with the organization's mission (Cable &

DeRue, 2002). When P-O fit exists, the employee would be more likely to trust the employer (Naz et al., 2020) and act in a way that contributes to the organization's development. Therefore, we propose that P-O fit could be an important moderating variable in the relationship between employability and organizational commitment.

We aimed to explore the influence of nursing training<sup>1</sup> on nurse's organizational commitment in public hospitals in China, and determine the mechanism and boundary condition behind that relationship. We proposed and verified that both internal and external employability serve as mediating variables linking training with organizational commitment. It is also found that such a chained effect through external employability is more pronounced when there is a higher level of person-organization fit. Our findings gave important implication of recruitment, selection and training of nursing talents for public hospitals. An understanding of the relationships discussed above would serve to inform hospital administration efforts to address turnover and retain well-trained nurses. Figure 1 was a graphic representation of our conceptual model.

### 1.1 | Training and organizational commitment

Organizational commitment refers to the type and strength of a person's attachment to his or her organization (Ahad et al., 2021; Benkarim & Imbeau, 2021). Organizational commitment could be a predictor of employee turnover and work performance (Hao et al., 2016; Ke & Sun, 2014; Li et al., 2018). Consequently, an increase in organizational commitment could play an important role in the improvement of employee group performance. Existing studies have proved a positive relationship between training and organizational commitment (Bulut & Culha, 2010). Training could improve employee skill level, attitudes and behaviours.

Employee perceptions of training could be separated into four categories: motivation for training, access to training, benefits of training and supervisor's support for training. In one early study, there was evidence that the motivation for training statistically significantly affected employee engagement levels with such opportunities (Noe & Wilk, 1993); employees with a greater motivation demonstrated enthusiasm and initiative in the trainings (Hung et al., 2018; Saha et al., 2022). Various organizational trainings improved employees' capabilities, helped them adapt to changing environments and fulfilled their desire for self-improvement. All of these

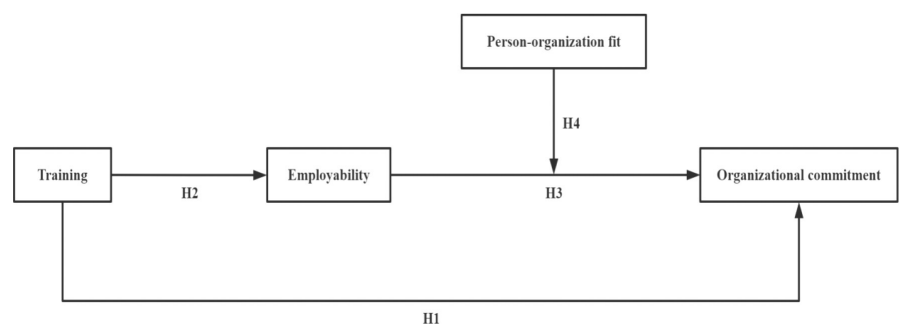


FIGURE 1 Theoretical hypothesis model

outcomes could result in an employee's desire to continue employment in a given organization.

The combination of training, a decent salary and positive interpersonal relationships at work may contribute to improved employee motivation and efforts that benefit their organization (Robbins & Judge, 2017). Employees usually regard supervisors as representatives of the organization. Consequently, support received from a supervisor could result in greater employee acceptance of and engagement with the organization (Zhai et al., 2013). The attention received from a supervisor, especially in the form of access to training, could make an employee feel that their contribution matters, thereby strengthening their sense of commitment to the organization. We proposed the following hypothesis:

*H1* Training is positively correlated with organizational commitment.

## 1.2 | Training and employability

According to the International Labor Organization, employability is related to "portable competencies and qualifications that enhance an individual's capacity to make use of the education and training opportunities available in order to secure and retain decent work, to progress in the enterprise and between jobs and to cope with changing technology and labour market conditions" (International Labour Office, 2015). Employability reflects employee professional capabilities with regard to their specific position (Heery & Noon, 2017; Higgs et al., 2019;) and is largely a matter of individual skills and behaviours. However, employers may contribute to a worker's employability. Employer-provided training may improve employees' skills and their attitudes (Spiva et al., 2017; Wang et al., 2019). Previous studies have shown that training can enhance internal employability because it gives opportunities to gain skills related to one's current job or opportunities for promotion in the organization. Training also may improve external employability because the new skills obtained could lead to greater work opportunities with other employers (Ling et al., 2014). However, there has been a lack of research in this relationship between training and employability in the healthcare industry.

Employees who have been trained and enjoy the confidence that they would be able to secure external employment with a high salary and good benefits might feel encouraged to leave their current job. Consequently, organizational commitment would be negatively impacted. The costs of switching jobs and workplace emotional attachments could weaken employees' resolve to leave. Moreover, internal employability and the opportunity of long-term career development also could encourage employees to stay in their organization, thus reducing turnover rate (Liu & Shi, 2005). Internal employability has been shown to have a statistically significant positive impact on affective, continuous and normative commitment whereas external employability has had a statistically significant negative impact on continuous and normative commitment (Zhang, 2019). We proposed the following hypotheses:

- H2a* Training is positively correlated with internal employability;
- H2b* Training is positively correlated with external employability.
- H3a* Internal employability plays a mediating role in the relationship between training and organizational commitment.
- H3b* External employability plays a mediating role in the relationship between training and organizational commitment.

## 1.3 | P-O fit

P-O fit, sometimes referred to as value congruence, is a measure of the perceived compatibility between the values individuals bring with them to work and those promoted by the employing organization (Risman et al., 2016). When the values and development goals of the employees are consistent with those of the organization, their work attitude and behaviour will be positively impacted (Gursoy et al., 2008; Vancouver & Schmitt, 1991). There is a statistically significant positive correlation between the match of organizational atmosphere and employee personality with organizational commitment. Additionally, the consistency of goals between manager-subordinate and peer-to-peer also positively could impact organizational commitment (Xerri et al., 2020). P-O fit is positively correlated with job satisfaction and negatively correlated with turnover intention (Chhabra, 2016). The impact of P-O fit on job performance has been amply documented. For example, Zhang et al. (2005) showed that P-O fit shaped employee decisions to remain in or leave a job. Shi and Yao (2019) showed that higher levels of P-O fit, led to greater impacts of workplace fun on employees creativity. We speculated that a high level of P-O fit would result in a greater willingness to remain in an organization among employees with high employability. However, when the level of P-O fit is low, even for employees with greater internal employability, the impact of internal employability on organizational commitment would be weakened; the lack of P-O fit would diminish motivation for internal development. A high level of external employability coupled with low P-O fit level could have a negative impact on organizational commitment.

- H4a* P-O fit regulates the mediating role of internal employability between training and organizational commitment.
- H4b* P-O fit regulates the mediating role of external employability between training and organizational commitment.

## 2 | METHODS

### 2.1 | Study design

This was a correctional cross-sectional study based on a self-report survey that participants completed online in August 2019. The pilot survey was conducted in July 2019. A total of 15 nurses completed the questionnaire and they were newly engaged nurses who were not included in the final survey. The objective of the

pilot study was to confirm that the wording used was easy to understand and to assess the amount of time needed to complete the questionnaire. The formal survey was conducted in August 2019 and lasted for 2 weeks.

## 2.2 | Participants

The study was conducted among nurses employed in Xinqiao Hospital. This hospital is one of the Class A, Grade III hospitals in southwest China. Its annual emergency room visits, average inpatient census and hospital beds are among the top hospitals in China.

The hospital has a population of 1900 nurses who work in 69 nursing units. We adopted convenient sampling technique for this study. A total of 30 nursing units were selected from 69 nursing units, and the head nurses of 30 units who were trained and informed of the purpose of the research, the main points to be covered and expected time of completion, invited all nurses in the unit to participate in this survey during the morning shift. The inclusion criteria were as follows: (a) 18 years of age or older; (b) able to understand and complete the questionnaires independently; and (c) gave consent to participate in the study and relevant medical information. Those who had a history of neurasthenia and trauma or recently had experienced a serious event, such as a natural disaster or serious accident were not included.

The head nurses sent the questionnaire link to the nurses who wished to participate and the participants completed the surveys online. The surveys were available on Sojump for 1 week. Sojump is a professional online questionnaire survey, evaluation and voting platform, which has been widely used by businesses and individuals in China. The average amount of time needed to complete the study was 10–15 min. The participants were informed of the purpose and procedure of the study and of their right to leave the study at any time or refrain from answering any questions. The participation was solely on the basis of voluntariness and confidentiality was perfectly ensured by not including any questions related to personal identity information (e.g., name, ID number or phone number). A total of 859 nurses completed the survey (85.9% response rate).

Using G\*Power 3.1.9.7 with medium effect size of .15, at power of .80 using linear multiple regression; fixed model;  $R^2$  deviation from zero, the sample size was planned to be at least 127. Besides, the widely accepted criterion requires 5–10 participants per item (Nunnally & Bernstein, 1994). For the 44 items (including five socio-demographic variables: gender, age, education level, marital status and professional title) used in this survey, a sample size of 390 would be considered sufficient. However, it is preferable to have a larger sample size to increase representativeness and statistical power.

## 2.3 | Survey instrument

The survey was comprised of 44 questions, including five demographic questions. The scales used in this study have been widely

used.<sup>2</sup> Following Brislin (1986) and Shaban et al. (2012) recommendation, a forward and backward translation method was used to prevent language issues. The translation from the original English to Chinese was first done by two Ph.D. students who majored in business administration. Then a bilingual researcher who was not involved in this study did the back-translation. Discrepancies between the original and back-translated versions were reviewed for equivalence of meaning by a language expert who speaks and writes both English and Chinese. Finally, the scales were modified and refined. All of the variables were scored on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Before the final survey was sent, the pilot survey was conducted. The objective of the pilot study was to confirm that the wording used was easy to understand. Two professors whose research field is management judged and certified the content validity of the scales. The reliability of the instruments was established through Cronbach alphas. The reliability of the Cronbach alpha for each scale was over .89.

Organizational Commitment was measured by a nine-item scale. We combined the three dimensions of organizational commitment developed by Allen and Meyer (1990) with the scale created by Ling et al. (2000). The scale included three dimensions— affective commitment, continuance commitment, normative commitment—and sample items included “I am willing to work hard for the hospital.” The Cronbach’s alpha coefficient was .92.

Training was measured with a 12-item scale developed by (Bulut & Culha, 2010). The scale included four dimensions—motivation for training, access to training, benefits of training and supervisor’s support for training—and items such as “I am usually motivated to learn the skills emphasized in training programmes.” The Cronbach’s alpha coefficient was .94.

Employability was measured using a nine-item scale developed by (Rothwell & Arnold, 2007). The background section of the questionnaire originally developed for business settings was adjusted to reflect the hospital context. The scale included two dimensions: internal and external employability. We selected four items from the section on internal employability. One example was the following: “Even if there was downsizing in this organisation I am confident that I would be retained.” External employability included five items. One example was the following: “I could easily retrain to make myself more employable elsewhere.” The Cronbach’s alpha coefficient was .89 for internal employability and .91 for external employability.

P-O fit was measured by a nine-item scale developed by Cable and DeRue (2002). The scale included three dimensions: values fit, needs-supplies fit and demands-abilities fit. Sample items included “The things that I value in life are very similar to the things that my organization values.” The Cronbach’s alpha coefficient was .93.

## 2.4 | Data analysis

SPSS23.0 and Mplus8.0 were used for statistical analysis. We performed confirmatory factor analysis to test validity and common

method variance. We also performed a descriptive statistical analysis of the variables and analysed each variable using a Pearson correlation test to understand the characteristics and correlation between variables. We conducted hierarchical regression analysis and conditional process analysis to examine the mediating and moderating effects. The independent, mediating and moderating variables were standardized to avoid multi-collinearity caused by the inclusion of interactional term in the regression. In this study, training was used as a predictive variable, employability as a mediating variable, P-O fit as a moderating variable and organizational commitment as an outcome variable.

## 2.5 | Ethical considerations

This study passed the academic ethics review of School of Economics and Business Administration of Chongqing University (IRB No. SEBA201906). All participants were informed of the aim of the study and made aware that their responses were for only academic exercise. Participation was voluntary and anonymity and confidentiality was assured. All procedures performed in this study were in accordance with the ethical standards of the national research committee and with the Helsinki Declaration of 2013.

## 3 | RESULTS

### 3.1 | Participants

After a strict review of the questionnaires filled out by the participants, 859 participants were included (see Appendix: Table A1 for details). Participants largely identified as female (95.8%); males accounted for only 4.2% of the sample, similar to the composition of nurses in other public hospitals in China. The majority of the nurses (94.0%) were between 20 and 39 years of age; there was 1 younger than 20 and 51 (5.9%) at 40 years of age or older. The majority of the participants (76.3%) held the title of junior, whereas 655 (19.3%) were mid-level professionals and only 13 (1.5%) senior-level nurses. The majority of the participants (80.8%) held a college degree. Most of the participants (61%) were married.

TABLE 1 Descriptive statistics and correlations (N = 859)

	Mean	SD	1	2	3	4	5
Training	3.960	0.665	0.92				
Internal employability	3.730	0.740	0.760**	0.83			
External employability	3.700	0.714	0.641**	0.738**	0.80		
Person-organization fit	3.841	0.733	0.807**	0.676**	0.559**	0.96	
Organizational commitment	3.709	0.746	0.754**	0.708**	0.591**	0.736**	0.91

Note: The data below the diagonal are the correlation coefficients between the variables; \* $p < .05$ , \*\* $p < .01$  (two-tailed). The diagonal values are the square root of AVEs of variables.

Abbreviations: AVE, average variance extracted; SD, standard deviation.

### 3.2 | Common method variance

The collection of data from a single source demanded a query into possible interference due to common method variance (CMV). Therefore, we conducted confirmatory factor analyses (CFAs) to test the influence of CMV (Tang & Wen, 2020). We assigned the measurement indicators from four dimensions of training, two dimensions of employability, three dimensions of organizational commitment and three dimensions of P-O fit on one factor. The CFA results indicated the fitting of model indicators was very poor ( $\chi^2/df = 15.114$ , RMSEA = .128, CFI = .691, TLI = .674, SRMR = .077); serious common method variance did not exist.

### 3.3 | Reliability and validity

We performed CFAs to test validity. The five-factor model (Training, Internal Employability, External Employability, Organizational Commitment, P-O fit) demonstrated satisfactory discriminant validity by presenting a good fit to the data ( $\chi^2/df = 5.265$ , RMSEA = .070, CFI = .911, TLI = .902, SRMR = .081). The factor loading of each variable was over .600, representing a satisfactory internal consistency. AVE and CR achieved a good level (AVE > .5, CR > .7). Hence, our instruments proved to have satisfactory reliability and validity (see Appendix: Table A2 for details).

### 3.4 | Descriptive statistics and correlations

The correlations among variables were in accordance with our expectations (Table 1). There were statistically significant positive correlations between training, internal and external employability and organizational commitment ( $p < .01$ ).

### 3.5 | The mediating role of employability

Hierarchical regression analysis evidenced that training was positively associated with organizational commitment ( $\beta = .753$ ,  $p < .01$ ), in support of hypothesis 1. Training predicted internal employability positively ( $\beta = .761$ ,  $p < .01$ ) and also proved positively related to

**TABLE 2** The mediating role of internal employability on the relationship between training and organizational commitment

	Internal employability		Organizational commitment		
	Model 1	Model 2	Model 3	Model 4	Model 5
Age	0.007	-0.036	0.080	0.038	0.050
Education	0.049	0.024	-0.004	-0.029	-0.037
Professional Title	-0.055	-0.022	-0.036	-0.003	0.004
Gender 2	-0.016	-0.033	0.051	0.034	0.045*
Marital status 2	0.044	-0.008	0.027	-0.024	-0.022
Marital status 3	0.017	-0.008	0.016	-0.009	-0.007
Marital status 4	-0.005	0.001	0.011	0.017	0.017
Training		0.761**		0.753**	0.503**
Internal employability					0.329**
R <sup>2</sup>	.007	.580	.012	.574	.619
F	0.876	146.630**	1.522	143.054**	153.391**

\* $p < .05$ , \*\* $p < .01$  (two-tailed).

**TABLE 3** The moderating effect of person-organization fit on the relationship between external employability and organizational commitment

	Organizational commitment		
	Model 1	Model 2	Model 3
Age	0.052	0.062*	0.065*
Education	-0.026	-0.024	-0.024
Professional Title	0.009	0.014	0.015
Gender2	0.037	0.036	0.034
Marital status 2	-0.027	-0.040	-0.039
Marital status 3	0.002	-0.015	-0.016
Marital status 4	0.015	0.011	0.010
Training	0.631**	0.358**	0.361**
External employability	0.190**	0.164**	0.160**
Person-organization fit		0.359**	0.366**
(Person-organization fit* external employability)			0.066*
(Person-organization fit* training)			-0.019
R <sup>2</sup>	.595	.639	.641
F	138.385**	149.926**	126.124**

\* $p < .05$ , \*\* $p < .01$  (two-tailed).

external employability ( $\beta = .645, p < .01$ ; Tables 2 and A3). Therefore, H2a and H2b were supported.

We adopted hierarchical regression analyses (Baron & Kenny, 1986) and conditional process analysis (Preacher & Hayes, 2008) to measure mediating effect. As shown in model 2, model 4 and model 5 of Table 2, training had a positive effect on internal employability in model 2 ( $\beta = .761, p < .01$ ). Training had a positive effect on organizational commitment in model 4 ( $\beta = .753, p < .01$ ). When controlling for internal employability, training had a positive but smaller effect on organizational commitment in model 5 ( $\beta = .503, p < .01$ ). Thus, internal employability partially mediates the positive effect of training on organizational commitment.

Following Preacher and Hayes (2008), we also conducted a mediation model in Process, a software for conditional process analysis, using the 95% bias-corrected bootstrap confidence interval analyses with 5,000 bootstrap samples to examine the statistical significance of indirect effect. The results showed that the indirect effect was .25 with a 95% confidence interval of [0.1847, 0.3238], which demonstrated internal employability played a positive mediating role in the relationship between training and organizational commitment. Therefore, H3a was supported.

Adopting the same methods, we found that external employability partially mediates the positive effect of training on organizational commitment. As shown in model 2, model 4 and model 5 of Table A3 in the Appendix, training had a positive effect on external employability ( $\beta = .645, p < .01$ ). Training had a positive effect on organizational commitment ( $\beta = .753, p < .01$ ). When controlling for external employability, training had a positive but smaller effect on organizational commitment ( $\beta = .631, p < .01$ ). Moreover, the indirect effect was 0.1224 with a 95% confidence interval of [0.0785, 0.1714], which demonstrated external employability mediated the relationship between training and organizational commitment. Therefore, H3b also was supported.

### 3.6 | The moderating role of P-O fit

The moderating influence of P-O fit on the relationship between internal employability and organizational commitment was not statistically significant ( $p > .05$ ; Table A4 in Appendix). Therefore, H4a was not supported because the second-stage moderation did not exist. Nor was it statistically significant in the relationship between training and organizational commitment ( $p > .05$ ). However, P-O fit moderated the relationship between external employability (EE) and organizational commitment in a positive direction ( $\beta = .066, p < .05$ ; Table 3).

In order to further examine the moderating influence of P-O fit on the relationship between external employability and organizational commitment, we differentiated the effects of two levels of

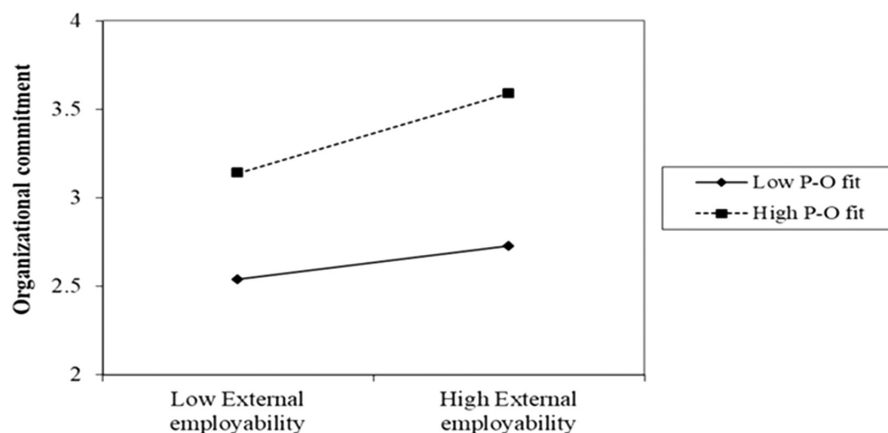


FIGURE 2 Simple slope test

P-O fit. We treated the high level of P-O fit as the average (centralized, with a mean value of zero) plus one standard deviation and the low level as the average minus one standard deviation. There was a difference between the high and low levels of P-O fit. Specifically, according to Figure 2, nurses with the same external employability demonstrated a stronger organizational commitment when they enjoyed a high level of P-O fit.

Finally, we tested for moderated mediation. We conducted Model 15 in Process for a conditional process analysis. The indirect effect of training on organizational commitment through external employability was statistically significant for the high but not for the low levels of P-O fit. The 95% confidence interval for the indirect effects was [0.0895, 0.1824] and [-0.0028, 0.1441] for the high and low levels of P-O fit, respectively. Therefore, H4b was supported. The intensity of the indirect influence of training on organizational commitment through external employability corresponded to the level of P-O fit.

## 4 | DISCUSSION

This study was designed to identify the factors that could improve the retention of highly qualified nurses in public hospital settings. This effort were identified from a concern that training could contribute to greater rates of turnover among nursing staff. The research focused specifically on the relationship between organizational training and organizational commitment, with attention to the impact of employability on that relationship and the introduction of P-O fit as a moderating variable. The study yielded several statistically significant findings.

First, training had a positive effect on organizational commitment. This finding reaffirmed conclusions from previous research (Ling & Zhang, 2020). According to the Training Guideline for New Nurses issued by the National Health Commission of China, each new nurse in Grade III-A Hospitals should participate in standardized trainings that include basic skills, communication skills and professional ethics. Therefore, almost all public hospitals have offered professional trainings for nurses. The trainings have contributed to a climate where nurses have felt supported. Ding et al. (2020)'s survey of 1,421 Grade III general hospitals showed that 91.6% of them

gave standardized training programs for new nurses, which may also be one of the reasons for the relatively high training scores in the hospital.

Second, training was associated with higher internal and external employability of nurses; both of them had a positive mediating effect on organizational commitment. The relationship between training and employability was consistent with the conclusions in Groot's work (Groot & De Brink, 2000). However, the positive mediating effect of external employability on organizational commitment proved surprising. Previous work has demonstrated that organizational training not only has permitted nursing staff to obtain professional knowledge and skills, but also has enhanced their competitiveness in the current labour market. However, Yousaf and Sanders' work (2012) demonstrated that job satisfaction mediated between employability and commitment. Support with internal and external employability could help nurses to meet expectations, reduce work pressures and improve job satisfaction. All of these could contribute in a meaningful way to organizational commitment.

Third, P-O fit strengthened the mediating effect of external employability on the relationship between training and organizational commitment. In their work on the financial industry, Ruiz-Palomino and Martínez-Canas (2014) argued that employees with high levels of P-O fit better understood the employer's culture, easily adapted to the environment and were able to integrate their personal improvement and development into organizational objectives. That example served to illuminate the relationship between nurse's employability and organizational commitment. Increased P-O fit resulted in an enhanced mediating effect of external employability on training and organizational commitment. Therefore, external employability proved to be more important to organizational commitment when accompanied by a positive P-O fit.

There are some limitations to this study that merit attention. First, the results could have been biased because the data was self-reported and the study was correctional cross-sectional. Although confirmatory factor analysis gave evidence that the problem of common method variance was not pronounced, future studies could ensure greater rigour through the use of multi-phrase and multi-source data collection. A longitudinal study could have given a better sense of changes in the nurses' reporting on all of the variables, and of the

relationship of those variables to turnover rates over time. Second, recruiting a convenience sample of nurses from a level A tertiary hospital may limit the generalization of the findings to nurses in secondary or below hospitals. Third, although this work emphasized the importance of shared values and goals, the research design did not include an exploration of the types of interventions that could improve P-O fit. Fourth, the focus on public hospitals limited the range of nursing positions covered in this research. The shift to an increasing number of contract (as opposed to formal full-time) positions has proven more rapid in the private sector. Therefore, future research could focus on private hospitals and part-time, contract and registry nurses to determine if the relationship between employability and organizational commitment are similar to the experiences found in public hospitals.

## 5 | CONCLUSIONS

Training for nursing staff is an effective way to cultivate nurses' organizational commitment with the mediating role of employability. Person-organization fit is important for regulating the relationships among training, employability and organizational commitment.

This study introduced P-O fit as a possible moderator of the relationship between employability and organizational commitment. The identification of a variable that could condition that relationship contributed a needed complexity to understandings about the factors that potentially shape turnover rates in an industry that struggles to retain qualified staff. Moreover, the focus on P-O fit helped to shift attention from the individual attributes of employees and illuminate the relational character of employee achievement, commitment and performance.

### 5.1 | Implications for nursing management

This study gave a number of relevant insights that could inform nursing management initiatives in the future. First, the emphasis on training as linked to organizational commitment merits greater attention. Organizational commitment could be established as one of the goals for high quality trainings. Moreover, progress toward such a goal could be measured and tracked as part of the follow-up for the trainings given. Second, the research debunked the notion that better training for employees would increase turnover. On the contrary, this study demonstrated the importance of continued investment in trainings for nursing staff as a means to cultivate employee organizational commitment. Third, administrators could focus on the development of skills that enhance external and internal employability. Although here has been some concern that external employability in particular could motivate employees to seek work elsewhere, the research showed that greater levels of external employability strengthened organizational commitment. Organizations that give training that improves employability could be regarded as a good employer. Fourth, there should be clear paths for employee internal development. The

lack of clarity and efficiency of internal development paths could result in unmet employee expectations and a consequent decline in organizational commitment. Fifth, there should be efforts to establish a coherence of personal and organizational development goals. Attention to P-O fit could comprise a fundamental part of the hiring process. A comparison of the candidates' values and development goals with the organization's mission and needs could complement the assessment of job candidates' professional knowledge, abilities, experiences and skills. Finally, initiatives to improve P-O fit should be pursued. These could include thoughtful discussions about strategies related to employee selection and appointments, the development of a supportive organizational culture, and the continuous construction of a coherent organizational system.

## AUTHOR CONTRIBUTIONS

Wei Yan, Xingqu Wu and Huan Wang designed the study and wrote the first draft of the manuscript. Yaling Zhang and Lixia Cheng contributed to data collection. Xinyao Zhou contributed to writing and revision of the manuscript. Huan Chen participated in the data analysis. Caiping Song and Junying Ye contributed to data collection and analysis. All authors read and approved the final version of the manuscript.

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## CONFLICT OF INTEREST

To the best of our knowledge, the named authors have no conflict of interest, financial or otherwise.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## ENDNOTES

<sup>1</sup> In accordance with the requirements of the National Health Commission's policy documents on standardized training of clinical nurses, Chinese public hospitals have formulated training content that includes professional skills, laws and regulations, medical ethics, and humanistic cares. A large variety of general and department-specific training programs or courses (e.g., nursing document, patient handling, aseptic technique, and gastrointestinal decompression technique) have been given to nurses. This study took a comprehensive perspective on training of nurses and focused on the training system



that contributes to high level of technical competence and clinical decision-making skills. Thank reviewers for their valuable comments.

<sup>2</sup> It is noted that some items in original scales are not applicable to the Chinese hospital context, and in some cases there is too much overlapping in items. Besides, the lengthy original scale makes administration of survey more time-consuming and tedious. To keep the scales concise and increase the response rate of participants, some minor changes have been made to the original items. For example, we deleted one item from the original External Employability Scale, because such item "People with my kind of job-related experience are very highly valued in their organization and outside whatever sort of organization they have previously worked in" asked the participant to speculate on others in a fictitious environment. This study used 12 items with higher factor loadings out of the original 30-item Training Scale to measure the employees-perceived training. The efforts above is common in fields of organization behaviour and human resource management (Fu et al., 2009; Wang et al., 2021). The confirmatory factor analysis was conducted showing good convergent validity for items of each dimension since all factor loadings were over .600.

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## APPENDIX

TABLE A1 Demographic characteristics (N = 859)

Variables	N	%
Gender		
Male	36	4.2
Female	823	95.8
Age		
<20	1	0.1
20-29	460	53.6
30-39	347	40.4
≥40	51	5.9
Professional title		
Senior	13	1.5
Mid-level	166	19.3
Junior	655	76.3
Others	25	2.9
Education		
Secondary education or under	1	0.1
College	162	18.9
Undergraduate	694	80.8
Postgraduate and above	2	0.2
Marriage status		
Married	524	61
Unmarried	322	37.5
Divorced or other	13	1.5

TABLE A2 Reliability and validity

Second-order factor	First-order factor	Factor loading	Random error	AVE	CR	
Training	Motivation for training	0.986	0.005	0.839	0.954	
	Access to training	0.946	0.012			
	Benefits of training	0.968	0.011			
	Support for training	0.742	0.018			
Organizational commitment	Affective commitment	0.807	0.016	0.833	0.937	
	Continuance commitment	0.988	0.005			
	Normative commitment	0.934	0.008			
Person-organization fit	Values fit	0.969	0.006	0.914	0.970	
	Needs-supplies fit	0.968	0.005			
	Demands-abilities fit	0.931	0.009			
	Internal employability		0.622			0.022
			0.875			0.010
	External employability		0.918	0.008	0.642	0.898
			0.879	0.010		
			0.800	0.014		
			0.862	0.011		
			0.836	0.012		
		0.860	0.011			
		0.625	0.023			

Abbreviations: AVE, average variance extracted; CR, Composed Reliability.

**TABLE A3** The mediating role of external employability on the relationship between training and organizational commitment

	External employability		Organizational commitment		
	Model 1	Model 2	Model 3	Model 4	Model 5
Age	-0.041	-0.078*	0.080	0.038	0.052
Education	0.003	-0.019	-0.004	-0.029	-0.026
Professional title	-0.090*	-0.062	-0.036	-0.003	0.009
Gender 2	0.000	-0.015	0.051	0.034	0.037
Marital status 2	0.057	0.013	0.027	-0.024	-0.027
Marital status 3	-0.038	-0.060*	0.016	-0.009	0.002
Marital status 4	0.005	0.011	0.011	0.017	0.015
Training		0.645**		0.753**	0.631**
External employability					0.190**
R <sup>2</sup>	.009	.421	.012	.574	.595
F	1.143	77.329**	1.522	143.054**	138.385**

\* $p < .05$ , \*\*  $p < .01$  (two-tailed).

**TABLE A4** The moderating effect of person-organization fit on the relationship between internal employability and organizational commitment

	Organizational commitment		
	Model 1	Model 2	Model 3
Age	0.050	0.058*	0.059*
Education	-0.037	-0.034	-0.034
Professional title	0.004	0.010	0.010
Gender2	0.045*	0.042*	0.043*
Marital status 2	-0.022	-0.034	-0.034
Marital status 3	-0.007	-0.021	-0.021
Marital status 4	0.017	0.013	0.013
Training	0.503**	0.277**	0.283**
Internal employability	0.329**	0.280**	0.277**
Person-organization fit		0.328**	0.330**
(Person-organization fit* internal employability)			0.000
(Person-organization fit* training)			0.021
R <sup>2</sup>	.619	.655	.656
F	153.391**	161.136**	134.189**

\* $p < .05$ , \*\*  $p < .01$  (two-tailed).