The Mediating Role of Personality Strengths in the Relationship Between Gender Roles and Occupational Well-Being of Nurses

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Abstract: Background: The purpose of the study is to explore the relationships amongst gender roles, personality strengths and occupational well-being of nurses in Mainland China. Design: A cross‑sectional study was used. Method: A total of 318 nurses from a tertiary hospital in Wenzhou City, Zhejiang Province, were measured with general information questionnaire, gender role scale (simplified version), three-dimensional character advantage questionnaire, and medical worker occupational well-being scale. Results: The character strengths and occupational well-being scores of the nurses in this study were (57.29±7.16) and (79.59±12.67), respectively. Bisexuality in gender roles was positively correlated with personality dominance and occupational well-being (r=0.535, r=0.204,P<0.01); undifferentiated was negatively correlated with both (r=-0.529, r=-0.230,P<0.01); and personality dominance was positively correlated with occupational well-being (r=0.350,P<0.01). In the effect of nurses' gender roles on occupational well-being, personality strengths played a fully mediating role. Conclusion: Gender roles and character strengths are important factors affecting nurses' professional well-being, and gender roles can indirectly affect nurses' professional well-being through character strengths. Clinical nursing managers should take relevant measures to cultivate character strengths appropriate to different gender roles to improve nurses' occupational well-being.

Keywords: Nurses; Gender Roles; Personality Strengths; Occupational Well-Being; Mediating Roles

1. Background

Occupational well-being refers to the fact that the subject is satisfied based on needs when engaged in a certain profession, the potential is fulfilled, the self-worth is realized, and the double good evaluation of the outside and the self is obtained. The subjective feeling of the state of satisfaction (Ozkara,2015;Ge,2010). Nursing staff is an indispensable backbone force in promoting a "healthy China", but their happiness has not been paid enough attention(Ouyang et al., 2019; Wang et al., 2020). Gender roles include four types: androgyny, masculine, feminine, and undifferentiated, which refer to different psychological characteristics or behavior patterns caused by gender differences (Bem,1981;Li,2019), which are related to personality advantages and professional well-being. Sex, and androgyny are the gender roles that predict happiness the most(Juster,2016;Cai,et al.,2008). The theory of character advantage shows that if you can use your own character advantages in daily life, you will maximize your own happiness (Peterson & Seligman, 2004). Most studies have shown that the higher the level of personality advantage, the higher the level of happiness(Douglass & Duffy, 2014; Hausler et al., 2017b; Xie et al., 2020). However, domestic researches on nurses' gender roles, personality advantages and professional well-being are mostly limited to the relationship between the two, and there are few studies on the relationship between the three. Therefore, this study intends to explore the relationship between the three, and analyze whether there is an intermediary role of personality advantages between gender roles and professional well-being, so as to provide a reference for improving nurses' professional well-being.

2. Aim

Our study examines the mediating role of personality strengths the relationship between gender roles and occupational well-being among nurses in Wenzhou, China.

3. Methods

3.1 Design

Nurseswereinvitedtoparticipate a study on their psychologicalwell-being.Cross-sectional data included self-administered questionnaires on demographic information and occupational status, as well as questionnaires on gender roles, personality strengths, and occupational well-being.

3.2 Sample and Settings

Using the whole-group sampling method(Ni et al.,2010), 318 clinical nurses from December 2020 to February 2021 in a tertiary hospital in Wenzhou, Zhejiang Province, were selected as the study population. Inclusion criteria: (1) obtaining a nurse qualification certificate from the People's Republic of China; (2) practicing nursing for more than 1 year; (3) informed consent and voluntary participation. Exclusion criteria: (1) nurses in training or internship or nurses on study or vacation; (2) those who could not cooperate with the study for various reasons.

3.3 Data collection

3.3.1 General Information Questionnaire

The questionnaire designed by the researcher, it included the nurses' age, only child, children, marital status, education, labor relations, department, technical title, position, number of night shifts, and annual income after tax.

3.3.2 The Gender Role Scale (simplified version)

This scale was measured using the Bem Gender Role Simplified Scale, which was revised in 2003 by Lu Qin and Su Yanjie(Lu &Su,2003)in a Chinese cultural context. The scale has two subscales, the masculine characteristics subscale contains 14 items, the feminine characteristics subscale contains 12 entries, and the neutralization subscale contains 13 entries. The neutral items were not scored and only served as a distraction. The items were scored on a 7-point scale ("1" for not at all and "7" for fully). The Cronbach coefficient of the scale in this study was 0.945.

3.3.3 Three-dimensional personality strengths questionnaire

A three-dimensional personality strengths questionnaire developed by Duan et al was used(Wenjie & He, 2017), which included three dimensions of affinity (5 entries), curiosity (5 entries) and self-control (5 entries), with a total of 15 entries involving 15 personality strengths, and each entry was scored on a 5-point scale ("1" means very The mean score of each entry in this study was greater than 3, indicating a high level of personality strengths(Lin et al.,2018). The scale has good reliability and validity. The Cronbach coefficient of the scale in this study was 0.910.

3.3.4 The Occupational Happiness Scale

The Occupational Happiness Scale for Medical Workers developed by Dongmei Hu et al.was used to conduct the survey(Hu et al.,2011). The scale contains five dimensions of physical and mental health status (6 entries), value/competence manifestation (6 entries), social support (5 entries), work environment (3 entries), and economic income (4 entries), with a total of 24 entries. Each entry was scored on a 5-point scale, with 1 being completely non-conforming and 5 being completely conforming. Among them, 6 entries of physical and mental health are reverse scoring items. The total score ranged from 24 to 120, with higher scores indicating higher occupational well-being. The last item asked the subjects to score their current occupational well-being status, where 0 means least happy and 100 means most happy. The level of happiness of medical workers was classified by the scale scores, and the mean of the scale theoretical value entries [1,2] was classified as low level, (2,4] as medium level, and (4,5] as high level. The Cronbach coefficient of this scale in this study was 0.8.

3.3.5 Data collection process

Consent was obtained from the nursing department and each department before the formal survey, and one-on-one paper questionnaires were distributed on site by the investigator, who explained the purpose of the study and the requirements for completion to the respondents in detail, and after obtaining consent, they were filled out anonymously by the respondents themselves, and the questionnaires were collected on site. A pre-survey was first conducted on 50 clinical nurses who met the inclusion and exclusion criteria, and any problems in the survey process were solved in a timely manner. After the formal survey, invalid questionnaires were excluded, and each questionnaire was entered by two people using EXCEL to ensure the accuracy of the data. A total of 350 questionnaires were distributed, and 318 were effectively recovered, with a valid recovery rate of 90.9%.

3.3.6 Data analysis

SPSS 22.0 statistical software was used for data analysis. Count data were expressed as frequencies and percentages (%), and measurement data were all normally distributed and expressed as mean±standard deviation (M±SD); correlation analysis was performed using Spearman correlation analysis; the Bootstrap method was used to test and validate the mediating effect of personality strengths between nurses' gender roles and personality strengths. $P < 0.05$ was considered a statistically significant difference.

4. Results

4.1 Participant Characteristics

There are 318 female nurses participating in the survey, 47.2% of nurses are 26-30 years old; 48.7% of nurses have a working life of 6-10 years; 96.9% of nurses have a bachelor degree; and more than 80% of nurses The job title is a nurse; more than 60% of nurses are married and have children.

4.2 Distribution of nurses' different gender roles

According to the scores of all subjects, the medians of the masculinity scale and femininity scale were determined. In this study, the median of masculinization items was 5.14 points, and the median of feminization items was 5.75 points. Taking the median as the boundary, if the masculinization item scores high (including the median), it belongs to the type of masculinization. The feminization item has a high score and belongs to the feminization type. If the scores of the masculinization and feminization items are both high, it is an androgynous type, and if the scores are both low (not equal to the median), it is an undifferentiated type. The distribution of gender roles among the 318 nurses in this study is dominated by androgyny and undifferentiated, 111 (34.9%) and 123 (38.7%), respectively. The distribution of masculinity and femininity is less, 40 (12.6). %) and 44 people (13.8%).

4.3 Stepwise regression analysis of 15 personality strengths and professional well-being in different gender role types

It can be seen from Table 1 that in different gender role types, the enthusiasm in the 15 character strengths can enter the regression equation that ultimately predicts nurses' professional well-being, and is in predictive ability in intersex, masculine, and undifferentiated gender roles. In the highest dimension; cooperation is the second character advantage that enters the regression equation among androgynous, masculine and feminine gender roles. Its ability to predict professional well-being is weak in androgynous gender roles, which can only explain the variance of 5.2 %, but it is in the dimension with high predictive ability in the masculine and feminine gender roles. In these two dimensions, its explanatory variation exceeds 30%.

Table1 Stepwise regression analysis of 15 personality strengths and professional well-being in different gender roles

	Dependent variable	Predictor variable	Adjusted R side	Standard coefficient β	t	p
Androgyny	Physical and mental health	enthusiasm	0.114	0.349	3.888	0
	Value/ability manifestation	cooperation	0.052	0.246	2.649	0.009
Masculine	Value/ability manifestation	enthusiasm	0.545	0.271	2.149	0.039
		fair		0.469	3.921	0
		cooperation		-0.46	-3.405	0.002
		Studious		0.356	2.677	0.011
	social support	enthusiasm	0.361	0.464	3.469	0.001
		honest		0.31	2.318	0.026
	working environment	enthusiasm	0.208	0.478	3.353	0.002
Feminization	Physical and mental health	enthusiasm	0.123	0.379	2.656	0.011
	Value/ability manifestation	curiosity	0.31	0.383	2.796	0.008
		kind-hearted		0.263	2.072	0.045
		enthusiasm		0.278	2.038	0.048
	social support	cooperation	0.376	0.703	4.641	0
		curiosity		0.467	3.737	0.001
		fair		-0.374	-2.539	0.015
	Income	humor	0.15	0.412	2.93	0.005
	working environment	humor	0.241	0.509	3.831	0
Undifferentiated	Physical and mental health	humor	0.043	0.225	2.536	0.012
	Value/ability manifestation	Studious	0.185	0.254	3.074	0.003
		fair		-0.257	-3.134	0.002
		enthusiasm		0.255	3.028	0.003
	social support	Studious	0.101	0.28	3.262	0.001
		fair		0.189	2.199	0.03
	Income	Studious	0.072	0.281	3.226	0.002
	working environment	Studious	0.09	0.312	3.608	0

4.4 Pairwise correlation analysis of different types of gender roles, personality advantages, and professional well-being

The androgynous gender roles are positively correlated with personality advantages (r=0.535, P＜0.01) and professional well-being (r=0.204,P＜0.01); undifferentiated gender roles are positively correlated with personality advantages (r= -0.529, P＜0.01), professional well-being (r=-0.230, P＜0.01) were negatively correlated; personality advantage was positively correlated

with professional well-being (r=0.350, P＜0.01).

4.5 The mediating effect of personality advantage between nurses' different gender roles and professional well-being

In the mediating effect model in this study, the independent variable gender role type   is coded as a dummy variable, and the mediating variable character advantage and the dependent variable occupational well-being are continuous variables.

It can be seen from Table 2 that taking masculinity as a reference, the mediating effect of androgyny on professional well-being through personality advantage is 3.974, and the 95% Bootstrap confidence interval is [1.917,6.499], excluding "0", indicating the mediating effect Significant; and after adding the intermediary variable personality advantage, the direct effect of androgyny on professional well-being is 0.150, and the confidence interval includes "0", indicating that its direct effect is not significant; undifferentiated mediating effect value of professional well-being through personality advantage Is -1.657, and the 95% Bootstrap confidence interval is [-3.164, -0.307], excluding "0"; indicating that the mediating effect is significant; and after adding the mediating variable character advantage, the direct effect of undifferentiation on professional well-being is -1.494 , The confidence interval includes "0", indicating that its direct effect is not significant. This result shows that personality advantages play a completely intermediary role in the process of androgynous and undifferentiated gender roles affecting professional well-being. That is, the role of androgyny and undifferentiated among nurses in different gender roles can affect their professional well-being. The underlying mechanism can be achieved by improving character strengths.

Table 2 Analysis of the mediating effect of personality advantages on nurses' professional well-being ([b] indicates that the mediation effect is significant)

Mediation path	estimated value	95%CI	
Take the control group as a reference:		Low value	High value
Androgyny→Character strengths→occupational well-being	3.974b	1.917	6.499
Androgyny → occupational well-being	0.150	-4.460	4.759
Undifferentiated→Character strengths→occupational well-being	-1.657b	-3.164	-0.307
Undifferentiated → occupational well-being	-1.494	-5.8114	2.823

5.Discussion

In recent years, scholars have investigated the professional well-being of clinical first-line nursing staff, and the results show that the professional well-being of nurses in China is mostly at a medium level, which is the same as the results of this study (Wang et al., 2020) （Zhao et al.,2020）. Among them, the social support dimension has the highest score and the physical and mental health dimension has the lowest score. The reason is that nurses receive more support from family members, colleagues, and leaders, so they get the highest scores for social support. However, due to the special nature of nurses' work, such as irregular sleep and heavy work pressure, they are likely to induce a variety of diseases that harm physical and mental health. Therefore, hospital managers should take a variety of measures, such as scientific scheduling and improvement of facilities, to relieve nurses' work pressure and enhance their professional well-being.

Rossi first proposed the androgynous model of gender role types, that is, individuals can have all the characteristics of a typical masculine gender role and a typical feminine gender role at the same time(Rossi, 1964). There are differences in the professional

well-being of nurses between different gender roles in this study. Among them, androgynous nurses have the highest professional well-being scores. It is also the same as the research conclusions of other scholars(Esteban-Gonzalo et al., 2021). The results of this study show that personality advantage is positively correlated with professional well-being, indicating that the higher the level of personality advantage nurses have, the higher their level of happiness. This is in line with domestic and foreign research The results are consistent (Allan & Duffy, 2013; Hausler et al., 2017a, 2017b). Personality advantage, as a positive personality trait, can stimulate the self-protection mechanism in nurses and make positive responses when nurses are facing greater work pressure or in a bad working environment, so that nurses can maintain a positive happiness experience. Through research, positive psychologists have found that individuals have different character advantages, and learning to use good character advantages flexibly can effectively improve the individual's sense of well-being, thereby improving the individual's physical and mental health (Kachel et al., 2021; Littman-Ovadia et al., 2016; Peterson & Seligman, 2004).

6. Conclusion

In summary, nurses with intersex gender roles have higher character advantages and higher levels of professional well-being. Hospital managers should break through the shackles of traditional gender dualism. They should not only make good use of the gender characteristics of nursing staff to achieve organizational coordination, but also pay attention to the development of individual gender roles and stimulate personal potential; nurses should have a certain understanding of their own gender roles. Know, discover one's own character advantages, and cultivate more character advantages in order to improve the comprehensive ability of personal nursing and enhance professional happiness. However, this study still has several shortcomings: 1. This study only included clinical female nurses. Although it was consistent with the overall gender distribution of clinical nurses, there was a certain bias. We hope to add the sample of male nurses in the future; 2. The sample size of this study is derived from Single center may cause a certain degree of selection bias. In the future, it is recommended to expand the sample size and carry out multi-center research.

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