A Survey and Research on the Occupational Identity of Vocational Nursing Students

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Abstract

Vocational nursing students play a pivotal role in the future development of the industry. Enhancing their occupational identity can strengthen their career beliefs, improve professional competence, elevate professional sentiments, and explore new pathways for cultivating skilled, responsible, and ideal nursing talents who possess the "four qualities" for the country and society. Empirical research reveals that the overall occupational identity of vocational nursing students is at a moderately high level, but the degree of occupational identity is not particularly high. There is no significant difference in gender, but significant differences exist in terms of grade, whether they are only children, whether they are student cadres, and the educational background of their parents. Strategies to enhance the occupational identity of vocational nursing students, such as increasing awareness, strengthening identification, and implementing practical experiences, are recommended. This aims to contribute to the development of talent in the nursing industry.

Keywords

Vocational, Nursing Major, Occupational Identity

1. Introduction

Since entering the 21st century, with economic development and scientific progress, the living standards of the people have gradually improved. The expectations for hospitals and medical personnel have shifted from the previous emphasis on "curing diseases" to the current emphasis on "good attitudes, good services, and good outcomes". Simultaneously, the "14th Five-Year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035" released in March 2021 outlines the development strat-

egy of "building a strong public health system". It explicitly sets the goal of "improving the capability to respond to sudden public health events", providing clear development guidelines for the public health sector in China. The development of public health is not only about raising people's health levels but also enhancing the capability to respond to unexpected public health events.

This requires clinical nursing staff to handle high-intensity nursing work while being prepared to respond to major public health emergencies, improving nursing service levels. Nursing work goes beyond merely treating diseases; it extends to promoting health, alleviating suffering, and more. However, research indicates that nurses often experience psychological conditions such as anxiety, psychological distress, low psychological resilience, significant symptoms of post-traumatic stress disorder (PTSD), and low psychological consistency (Jin, 2022).

Nurses, facing intense clinical nursing work, must also be vigilant about potential doctor-patient and nurse-patient conflicts, which significantly impact their sense of professional identity. A report on "Nursing Professional Burnout" from a psychology department at a southern university in China surveyed over 1800 nurses in more than 10 hospitals, revealing that 62.8% of nurses experience varying degrees of professional burnout. Occupational burnout affects the professional development of nursing staff, leading to a significant loss of nursing personnel and seriously affecting the quality of clinical nursing work.

Nursing is considered a challenging profession with inherent risks and pressures (Hao, 2011). Pre-service nursing students, as the future backbone of the nursing industry, have their sense of professional identity influenced and determined by their perception of the nursing profession. This, in turn, directly affects their future career choices and development paths. Therefore, addressing how to inspire vocational nursing students' passion for the nursing profession and enhance their sense of professional identity becomes a crucial issue for educational institutions.

A high level of professional identity helps students approach their social status with a positive attitude. It enables them to become comprehensive nursing professionals who integrate morality, intelligence, physical fitness, aesthetics, and labor, possessing a strong sense of professional identity, proficient professional abilities, and positive professional emotions.

2. Theoretical Foundation of the Study

Satisfaction among nursing students with their future work is conducive to promoting their transition to the nursing profession. However, the gap between idealized school learning and the realities of the workplace has led to a significant phenomenon of student attrition upon entering the profession. This not only impacts the development of the nursing industry but also has a sustained effect on the cultivation of future students. Therefore, gaining in-depth insights into students' perceptions and identification with the nursing industry is a crucial measure to facilitate the development of pre-service nursing students.

From the perspective of the learning stages in nursing education, students' learning is primarily divided into the in-school learning stage and the clinical internship stage. Different learning requirements at each stage influence students' occupational identity to some extent. For instance, a study focusing on occupational identity among nursing outpatient nurses found that their occupational identity was at a moderate level (Chen, Dong, & Han, 2021). On the other hand, the occupational identity level of nursing students in the in-school learning stage is not high (Tian, Zhu, & Zhang, 2012). Various factors may influence and constrain students' occupational identity during these stages. Researchers have proposed that factors such as nursing major selection, interest in the profession, career self-efficacy, and parental support for studying nursing impact students' occupational identity (Zhou et al., 2021).

However, the occupational identity of nursing students may manifest different traits in various domains, and their inherent characteristics significantly impact the enhancement of occupational identity. A study on the relationship between nursing personnel's occupational identity and research capabilities found a positive correlation between higher occupational identity and the need for further strengthening of occupational identity (Zhu & Zhang, 2019). Another study explored the positive correlation between psychological capital and occupational identity among internet-based nurses in hospitals offering "Internet + nursing services" (Li et al., 2022). To effectively enhance the occupational identity of nursing students, researchers have conducted intervention experiments to improve students' levels of occupational identity and self-efficacy through rational interventions (Xu et al., 2019).

Occupational identity levels may vary across different professions, giving rise to assessments specific to the nursing profession. For instance, tools like the NPIS (Nursing Professional Identity Scale) developed by American scholars measure the relationship between registered nurses' professional identity, job satisfaction, professional commitment, and the intention to stay in the nursing industry (Sharbaugh, 2009). Chinese scholars have created the "Nursing Student Occupational Identity Questionnaire" (Hao, 2011), which includes dimensions such as career self-concept, retention benefits and departure risks, social comparison and self-reflection, autonomy in career choices, and social persuasion. Additionally, a scale developed by Liu Ling includes dimensions like nursing professional cognitive evaluation, professional social support, professional social skills, coping with professional setbacks, and professional self-reflection (Liu, 2009).

While existing research on occupational identity in the nursing industry is abundant, there is still room for expansion in terms of research subjects, particularly concerning vocational students. Furthermore, there is a lack of targeted and practical tools for measuring occupational identity among vocational nursing students. Therefore, this study will focus on vocational students, providing a basis for promoting the occupational development of vocational nursing students by conducting measurements related to occupational identity.

3. Research Design

1) Study Subjects

The research subjects of this study are nursing students in vocational schools in the Zhejiang region. A random sampling method will be employed for the survey. The entire survey process adheres to principles such as informed consent and voluntariness. Students will be informed of the purpose of the study, privacy protection, etc., to gain their trust and cooperation. The questionnaires will be collected on the spot. A total of 400 questionnaires will be distributed, and 356 valid questionnaires will be collected, resulting in an effective response rate of 89%. Among the respondents, there are 44 male students and 312 female students. There are 204 first-year students, 152 second-year students, 209 only children, and 147 non-only children.

2) Research Tools

The study primarily utilizes the "Nursing Student Occupational Identity Questionnaire" developed by Chinese scholar Hao Yufang in 2011. The questionnaire has been adapted based on the cognitive development characteristics of students and the specific features of the nursing major. It consists of two parts: background information on vocational nursing students, including gender, grade, only child status, father's education, mother's education, etc., and an occupational identity scale, including dimensions such as career self-concept, retention benefits and departure risks, social comparison and self-reflection, autonomy in career choices, and social persuasion. After adaptation, the questionnaire underwent a pilot test, showing a Cronbach's alpha coefficient of 0.827, split-half reliabilities of 0.842, and a Kaiser-Meyer-Olkin (KMO) value of 0.894, reaching a significant level in the validity test. This indicates that the questionnaire has high reliability and validity and is suitable for measuring the occupational identity of vocational nursing students.

4. Research Results

1) Overall Occupational Identity of Vocational Nursing Students

The survey results indicate that, based on a 5-point standard for overall occupational identity, the mean score for the occupational identity of vocational nursing students is 3.498, reflecting a relatively high level of occupational identity. In terms of individual dimensions, the highest mean is observed in the social persuasion dimension, followed by social comparison and self-reflection, career self-concept, autonomy in career choices, and retention benefits and departure risks. This suggests that vocational nursing students are more concerned about societal expectations and show less concern about potential risks (Table 1).

2) Analysis of Differences

a) Analysis of Occupational Identity Differences in Vocational Nursing Students by Gender

Analysis of occupational identity differences in vocational nursing students by gender, as shown in Table 2, did not exhibit significance in all aspects ($p > 0.05$).

This implies that male and female nursing students show consistency in overall occupational identity and its factors, without significant differences.

b) Analysis of Occupational Identity Differences in Vocational Nursing Students by Grade

Using t-tests to analyze differences in occupational identity among vocational nursing students in different grades, the results in Table 3 show no significant differences in social comparison and self-reflection, and social persuasion ($p > 0.05$). However, significant differences were observed in career self-concept, retention benefits and departure risks, and autonomy in career choices across different grades ($p < 0.05$).

Table 1. Overall level of occupational identity of vocational nursing students (n = 356).

Factor	Mean	Standard Deviation	Number of Items
Social Comparison and Self-Reflection	3.70	0.84	3
Social Persuasion	3.72	0.82	2
Career Self-Concept	3.49	0.76	6
Autonomy in Career Choices	3.40	0.97	2
Retention Benefits and Departure Risks	3.18	0.96	4

Table 2. Analysis of occupational identity differences in vocational nursing students by gender.

	Gender (Mean ± Standard Deviation)		F
	Female (n = 312)	Male (n = 44)	
Career Self-Concept	21.04 ± 4.43	20.14 ± 5.33	1.232
Retention Benefits and Departure Risks	12.60 ± 3.83	13.43 ± 3.81	−1.346
Social Comparison and Self-Reflection	11.15 ± 2.53	10.57 ± 2.40	1.438
Autonomy in Career Choices	6.80 ± 1.90	6.89 ± 2.16	−0.284
Social Persuasion	7.45 ± 1.66	7.43 ± 1.56	0.064

Table 3. Analysis of occupational identity differences in vocational nursing students by grade.

	Grade (Mean ± Standard Deviation)		F
	Freshmen (n = 204)	Sophomores (n = 152)	
Career Self-Concept	21.63 ± 3.85	19.99 ± 5.22	3.270**
Retention Benefits and Departure Risks	13.28 ± 3.67	11.93 ± 3.91	3.353**
Social Comparison and Self-Reflection	11.15 ± 2.57	10.98 ± 2.46	0.635
Autonomy in Career Choices	7.02 ± 1.86	6.52 ± 1.99	2.459*
Social Persuasion	7.55 ± 1.62	7.31 ± 1.67	1.364

*$p < 0.05$, **$p < 0.01$.

c) Analysis of Occupational Identity Differences in Vocational Nursing Students by Only Child Status

Using t-tests to analyze occupational identity differences in vocational nursing students based on whether they are only children, the results in Table 4 show no significant differences in career self-concept, retention benefits and departure risks, and social persuasion ($p > 0.05$). However, significant differences were observed in social comparison and self-reflection, and autonomy in career choices based on only child status ($p < 0.05$).

d) Analysis of Occupational Identity Differences in Vocational Nursing Students by Cadre Status

Using t-tests to analyze occupational identity differences in vocational nursing students based on cadre status, the results in Table 5 show no significant differences in career self-concept, social comparison and self-reflection, and social persuasion ($p > 0.05$). However, significant differences were observed in retention benefits and departure risks, and autonomy in career choices based on cadre status ($p < 0.05$).

Table 4. Analysis of occupational identity differences in vocational nursing students by only child status.

	Only Child Status (Mean ± Standard Deviation)		F
	Not Only Child (n = 147)	Only Child (n = 209)	
Career Self-Concept	20.37 ± 5.11	21.32 ± 4.08	−1.880
Retention Benefits and Departure Risks	12.25 ± 3.66	13.02 ± 3.93	−1.880
Social Comparison and Self-Reflection	10.46 ± 2.82	11.52 ± 2.19	−3.824***
Autonomy in Career Choices	6.50 ± 1.99	7.03 ± 1.86	−2.583*
Social Persuasion	7.53 ± 1.62	7.39 ± 1.66	0.809

*$p < 0.05$, ***$p < 0.001$.

Table 5. Analysis of occupational identity differences in vocational nursing students by cadre status.

	Is it a cadre (mean ± standard deviation)		F
	No (n = 290)	Yes (n = 66)	
Career Self-Concept	20.91 ± 4.75	21.00 ± 3.60	−0.171
Retention Benefits and Departure Risks	12.08 ± 3.69	15.44 ± 3.19	−6.826***
Social Comparison and Self-Reflection	11.03 ± 2.52	11.29 ± 2.53	−0.747
Autonomy in Career Choices	6.54 ± 1.85	8.00 ± 1.82	−5.808***
Social Persuasion	7.45 ± 1.64	7.44 ± 1.65	0.040

***$p < 0.001$.

e) Analysis of Occupational Identity Differences in Vocational Nursing Students by Father's Different Educational Levels

Using one-way analysis of variance to analyze occupational identity differences in vocational nursing students based on different educational levels of fathers, the results in Table 6 show no significant differences in career self-concept and social persuasion ($p > 0.05$). However, significant differences were observed in retention benefits and departure risks, social comparison and self-reflection, and autonomy in career choices based on different educational levels of fathers ($p < 0.05$).

f) Analysis of Occupational Identity Differences in Vocational Nursing Students by Mother's Different Educational Levels

Using one-way analysis of variance to analyze occupational identity differences in vocational nursing students based on different educational levels of mothers, the results in Table 7 show no significant differences in career self-concept, social comparison and self-reflection, and social persuasion ($p > 0.05$). However, significant differences were observed in retention benefits and departure risks, and autonomy in career choices based on different educational levels of mothers ($p < 0.05$).

Table 6. Analysis of occupational identity differences in vocational nursing students by father's educational level.

	Father's educational background (mean ± standard deviation)				
	Junior high school and below ($n = 161$)	College ($n = 36$)	Bachelor's degree or above ($n = 21$)	High school or vocational school ($n = 138$)	F
Career Self-Concept	21.51 ± 4.33	20.36 ± 3.89	21.14 ± 2.63	20.36 ± 5.11	1.800
Retention Benefits and Departure Risks	13.32 ± 3.51	14.89 ± 3.68	16.57 ± 2.23	10.83 ± 3.45	29.077***
Social Comparison and Self-Reflection	11.50 ± 2.24	11.36 ± 2.17	11.81 ± 2.80	10.40 ± 2.74	5.844**
Autonomy in Career Choices	7.01 ± 1.89	7.50 ± 1.76	9.43 ± 0.81	5.99 ± 1.64	28.739***
Social Persuasion	7.50 ± 1.55	7.78 ± 1.51	7.43 ± 1.16	7.30 ± 1.83	0.883

**$p < 0.01$, ***$p < 0.001$.

Table 7. Analysis of occupational identity differences in vocational nursing students by mother's educational level.

	Mother's educational background (mean ± standard deviation)				
	Junior high school and below (n = 177)	College (n = 29)	Bachelor's degree or above (n = 11)	High school or vocational school (n = 139)	F
Career Self-Concept	20.42 ± 5.42	21.17 ± 3.83	21.27 ± 2.61	21.49 ± 3.43	1.484
Retention Benefits and Departure Risks	12.65 ± 3.94	16.14 ± 3.13	16.91 ± 2.26	11.73 ± 3.27	17.317***
Social Comparison and Self-Reflection	11.29 ± 2.46	11.31 ± 2.62	12.00 ± 2.97	10.68 ± 2.50	2.163
Autonomy in Career Choices	6.78 ± 1.96	8.59 ± 1.32	10.00 ± 0.00	6.22 ± 1.58	27.589***
Social Persuasion	7.42 ± 1.56	7.86 ± 1.43	7.00 ± 1.18	7.43 ± 1.80	0.910

***$p < 0.001$.

5. Conclusions and Recommendations

5.1. Research Conclusions

Occupational Identity of Vocational Nursing Students is Moderate to High

The data survey indicates that the occupational identity of vocational nursing students is generally moderate to high. Overall, students tend to maintain their current career direction, experience intrinsic satisfaction in pursuing a nursing profession, and exhibit high self-efficacy in achieving success in nursing.

Correlation of Occupational Identity with Grade and Parental Education

With increasing grade levels, occupational identity shows a declining trend, possibly related to the increasing academic pressure and negative attitudes towards career emotional experiences.

Students with higher parental education levels exhibit higher occupational identity. This may be attributed to the greater understanding and approval of nursing professions by parents with higher educational backgrounds, instilling more trust in their children's career choices.

Differences in Occupational Identity Based on Cadre Experience and Only Child Status

Students who have served as student cadres in vocational nursing demonstrate higher occupational identity compared to non-cadres. This is possibly due to the direct and comprehensive influence of teachers when assisting them, providing a deeper and clearer understanding of the nursing profession.

Only children show lower occupational identity compared to non-only children, possibly influenced by receiving more family protection and parental indulgence. Only children may also exhibit stronger self-awareness and be more willful in decision-making.

5.2. Improvement Recommendations

Enhance Awareness: Understand and Appreciate the Nursing Profession

Implement vocational education to enhance awareness, covering interpretation of school rules and regulations, program settings, training objectives, brand characteristics, and requirements for professional development. Incorporate ideological and political education, allowing students to embrace the spirit of Florence Nightingale and cultivate a strong belief in nursing professionalism.

Strengthen Identification: Inclusion and Belonging in the Nursing Profession

Uphold the educational philosophy of cultivating moral character and talent. Conduct activities such as vocational skills competitions, nursing etiquette competitions, and social practices to help students experience self-worth, integrate into nursing, find a sense of belonging, and develop a sense of responsibility and professional mission.

Implement Practice: Action and Commitment to the Nursing Profession

Demonstrate loyalty to the nursing profession through actions, emphasizing professional ideals, practicing professional ethics, and enhancing a positive professional attitude. Organize cap-and-pledge ceremonies for nursing students be-

fore internships to instill the education philosophy of "humanity, humaneness, benevolence, and benevolence".

Provide standardized training for clinical instructors, regularly assess their performance, and select outstanding nurses with competence and responsibility for teaching roles. Clinical internship periods are crucial for forming occupational identity; thus, focus on cultivating students' humanistic care and nursing qualities, ensuring a well-rounded education.

Foster a Sense of Responsibility: Empower and Support Nursing Students

Promote a culture of responsibility by organizing volunteer service activities, such as providing warmth to special education schools, partnering with welfare institutions, and offering health services in communities. These activities aim to help students experience the joy of helping others, understand the nursing profession, and strengthen their sense of professional honor and responsibility.

Combine Theoretical and Practical Teaching: Bridging the Gap

Integrate theoretical and practical teaching methods by simulating real-world scenarios in nursing courses. Invite experienced clinical nursing teachers from hospitals to address the gap between textbook theory and clinical practice.

Organize nursing skill competitions, nursing etiquette competitions, and other activities to enhance students' interest and enthusiasm for learning. Additionally, engage students in volunteer service activities to allow them to experience the fulfillment of helping others, comprehend the nursing profession, and build confidence in becoming a compassionate healthcare professional.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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