Journal of Integrative Nursing and Palliative Care (JINPC)

Original Article

Volume 5 | Issue 2 | Page 153-160
Copyright CC BY NC SA 4.0

Exploring the Relationship Between Life Meaning and Occupational Identity Among Nursing Students in China: A Cross-Sectional Study

Tang Yi [1*], Xu Yan[2]

[1]*School of Nursing, Hangzhou Normal University, Hangzhou City, Zhejiang Province, China.*
[2]*Department of Clinical Psychology, Affiliated Hospital of Hangzhou Normal University, Hangzhou, 311121, China.*

Abstract

After China adjusted its epidemic prevention policies, a nationwide surge of COVID-19 occurred from December 2022 to January 2023. The pandemic's influence extended beyond personal reflections on life and death, also shaping how nursing students perceive their professional roles. This study investigated how the COVID-19 pandemic influenced nursing students' sense of life meaning and their occupational identity. Data were collected through an online questionnaire that included the Chinese versions of the *Nursing Student Career Identity Scale* and the *Meaning in Life Questionnaire*. The survey also gathered demographic and background information such as gender, education level, clinical internship experience, and COVID-19 infection status. Nursing students reported moderate levels of both professional identity (M = 61.58, SD = 16.16) and life meaning (M = 45.29, SD = 12.65). When compared with data prior to the pandemic, their professional identity scores increased, whereas their sense of life meaning declined. A significant positive relationship was found between the two variables ($p < 0.001$), indicating that students with a stronger sense of life meaning tended to show higher levels of professional identity. Fostering a deeper sense of life meaning among nursing students plays an essential role in maintaining and strengthening their professional identity. Nursing education programs should incorporate life education and relevant learning activities to support this development.

Keywords: Nursing students, Occupational identity, Meaning in life, COVID-19 pandemic

Introduction

Since the emergence of the Coronavirus disease 2019 (COVID-19) in China in 2020, the nation's public health system has undergone immense strain, particularly among nurses who served on the front lines. These professionals faced both a high risk of infection and intense psychological pressure. The combination of viral exposure and heavy workloads resulted in increased rates of anxiety, depression, and sleep problems among nurses [1, 2], which negatively affected their personal well-being and job performance. Previous research suggests that a strong sense of life meaning can buffer against emotional distress, such as depression, and promote psychological health [3]. A well-developed sense of meaning helps nurses value life, understand its deeper significance, respond to patients' spiritual needs, and provide compassionate, holistic care. At the same time, it strengthens their professional identity. Therefore, nurturing nurses' sense of life meaning not only supports their mental health but also enhances their professional commitment and improves the quality of patient care. Work itself is a major avenue for discovering personal meaning. Understanding how one finds purpose through work is therefore essential.

Corresponding author: Tang Yi
Address: School of Nursing, Hangzhou Normal University, Hangzhou City, Zhejiang Province, China.
E-mail: ✉ tang.yi95@163.com
Received: 10 March 2024; **Accepted:** 17 June 2024; **Published:** 20 December 2024

How to Cite This Article: Yi T, Yan X. Exploring the Relationship Between Life Meaning and Occupational Identity Among Nursing Students in China: A Cross-Sectional Study. J Integr Nurs Palliat Care. 2024;5(2):153-60. doi:10.51847/TrEHE3x19u

According to Frankl [4], the type of work is less important than the attitude and mindset one brings to it. A positive, creative, and responsible approach gives work its meaning—an idea closely linked to the concept of occupational or professional identity.

Professional identity [5] involves internalizing one's professional role, embracing it sincerely, and forming a positive evaluation of that role. In China, however, nursing has long been perceived as a field with low academic prestige, low social status, and high workload [6]. Because of this negative public image, Chinese nurses have historically reported low levels of professional identity [7]. At the same time, because nurses often work in close proximity to illness and death, these experiences prompt deeper reflection on the meaning of life, with previous studies showing moderately high levels of life meaning among Chinese nurses [8].

During the three years of battling COVID-19, media portrayals of nurses as dedicated heroes helped improve the public's view of the profession, which in turn enhanced nurses' professional identity compared to pre-pandemic levels [9, 10]. However, nurses remained among the groups most vulnerable to infection, with a reported mortality rate of 54.2% among Chinese healthcare workers early in the pandemic [11]. The threat of contracting the virus, as well as the risk posed to their families [12], contributed to heightened fear and stress, potentially undermining nurses' psychological well-being and sense of life meaning.

Nursing students, as the future core of the nursing workforce, face the task of understanding life, death, and suffering on a profound level. They must develop resilience to cope with the emotional impact of illness and death on themselves, their peers, and patients' families. Their social and educational environments require them to cultivate this understanding early on. Moreover, nursing students' level of professional identity directly affects workforce stability—those who lack a strong sense of professional belonging may experience low job satisfaction and leave the profession prematurely [13]. In China, few students intentionally choose nursing after the National College Entrance Examination [14]; many enter the field only after failing to qualify for higher-ranked majors. Additionally, Chinese nursing education traditionally emphasizes theory and technical skills, with limited focus on fostering life meaning or developing professional identity [15].

Earlier research has shown that nursing students' professional identity correlates with traits such as psychological resilience [16], empathy fatigue [17], and attitudes toward death [18]. A positive sense of life meaning can help students form a healthy perspective on death and accept it more openly. However, the COVID-19 pandemic has not only reshaped individuals' understanding of life and mortality but has also influenced nursing students' professional identity. Based on this, the present study proposes two hypotheses:

(1) Following the COVID-19 pandemic, nursing students' professional identity has increased, whereas their sense of life meaning has decreased.

(2) Nursing students' sense of life meaning is positively associated with their professional identity, and strengthening their life meaning can enhance their professional identity.

Materials and Methods

Study design, participants, and data collection

Following the adjustment of China's infectious disease management policy on January 8, 2023, the State Council reclassified COVID-19 from a Class A to a Class B infectious disease [19]. As a result, the disease was managed with less restrictive public health measures. Mandatory quarantine, close-contact tracing, and the classification of high- and low-risk zones were all discontinued.

Between March and April 2023, this study applied a convenience sampling technique to recruit 418 nursing students from Hangzhou, Zhejiang Province. The purpose and procedures of the study were explained clearly to all participants, who agreed to take part on a voluntary basis.

Ethical approval

The study protocol was reviewed and approved by the university's institutional ethics committee (Approval No. 2022045). Participants were informed that their involvement was voluntary and that they could withdraw from the study at any time during the survey process without any consequences.

Instruments

General information form

This cross-sectional study utilized a structured questionnaire composed of three main sections. The first section gathered participants' demographic data, including gender, level of education, clinical practice experience, and history of COVID-19 infection.

Chinese meaning in life questionnaire (C-MLQ)

The second section assessed the participants' sense of life meaning using the Chinese adaptation of the *Meaning in Life Questionnaire (C-MLQ)*. Originally developed by Steger *et al.* [20] and later translated and validated in Chinese by Liu *et al.* [21], the scale includes nine items grouped into two subscales: *Presence of Meaning* and

Search for Meaning. Each item is rated on a 7-point Likert scale. Scores below 38 indicate a low sense of life meaning, 38–51 represent a moderate level, and scores above 51 indicate a high level of meaning. The *Presence* subscale measures how much individuals perceive their lives as meaningful, while the *Search* subscale reflects their ongoing efforts to find meaning. This questionnaire has been widely applied in psychological and nursing studies [22–24]. In this research, the internal consistency coefficient (Cronbach's α) for the C-MLQ was 0.729.

Occupational identity scale

The third section of the survey used Hao Yufang's *Occupational Identity Scale* [25] to measure nursing students' identification with their professional role. The tool consists of 17 items divided into five components: career self-concept, perceived benefits of remaining and risks of leaving, social reflection and comparison, career choice autonomy, and social persuasion. Each item is scored on a 5-point Likert scale (total range: 17–85), with item 12 being reverse-scored. Higher total scores represent a stronger professional identity. The Chinese version of the scale has demonstrated solid psychometric properties and has been applied in multiple nursing education studies [10, 26, 27]. In Hao's original study, the Cronbach's alpha was 0.827; in this study, the reliability was 0.967.

Data analysis

Data were analyzed using SPSS version 25.0. Descriptive statistics were used to summarize the sample, with categorical variables presented as frequencies and percentages, and continuous variables as mean ± standard deviation (SD). Data normality was verified using skewness and kurtosis values, where absolute values ≤ 3 were considered acceptable for normal distribution [28]. Independent samples t-tests and one-way ANOVA were applied for group comparisons, while Pearson correlation analysis examined the relationship between professional identity and life meaning. A significance level of $p < 0.05$ was adopted. Participants were grouped into low, moderate, and high life meaning categories based on their C-MLQ scores, and t-tests were used to assess differences in professional identity between the high and low groups.

Results and Discussion

Assessment of common method bias

Since all variables were measured using self-reported questionnaires, potential common method bias was examined. To reduce this risk, participants responded anonymously, and some reverse-scored items were included. Harman's single-factor test was conducted through confirmatory factor analysis to check for bias across all measurement items. The model fit indices indicated poor fit ($\chi^2/df = 14.545$, CFI = 0.717, GFI = 0.418, AGFI = 0.317, NFI = 0.703, RMSEA = 0.180), suggesting that no significant common method bias was present in the data. Career identity and sense of life meaning scores **(Table 1)**

Table 1. Total score of professional identity and sense of life meaning and scores of each dimension

	Items	Number of items	Score	Average score of items
Professional Identity	Professional self-concept	6	21.55 ± 6.19	3.59 ± 1.03
	Retention Benefits and Exit Risks	4	14.06 ± 4.18	3.51 ± 1.05
	Social Comparison and Reflection	3	11.28 ± 2.78	3.76 ± 0.93
	Autonomy in career choice	2	7.14 ± 1.95	3.57 ± 0.97
	Social Persuasion	2	7.55 ± 2.08	3.78 ± 1.04
	Total Score	17	61.58 ± 16.16	3.62 ± 0.95
Sense of life meaning	Presence	5	25.10± 7.15	5.02 ± 1.43
	Seeking Sense	4	20.19± 5.99	5.05 ± 1.50
	Total Score	9	45.29± 12.65	5.03 ± 1.41

Correlation between demographic characteristics of nursing students and sense of life meaning

Table 2 summarizes the demographic data of the 418 nursing students and outlines differences in their life meaning scores across various characteristics. Statistical analysis revealed that gender, educational background, and clinical practice experience were significantly related to students' sense of life meaning. Male participants reported higher life meaning scores than female students ($p<0.001$). Regarding education, undergraduates achieved the highest mean scores, followed by postgraduates and junior college students, showing a significant variation among the three groups ($p<0.001$). Students who had not yet engaged in clinical training also demonstrated a higher perceived life meaning compared to those with such experience ($p = 0.006$). In contrast, whether students had been infected with COVID-19 did not lead to a statistically significant difference ($p = 0.207$).

Table 2. Correlation between demographic characteristics of nursing students and sense of life meaning ($n = 418$)

Category	Subgroup	Number of Participants	Percentage (%)	Sense of Life Meaning (Mean ± SD)	t/F Statistic	P-value

Gender						
	Female	299	71.53	42.23 ± 10.87	t = 7.713	<0.001
	Male	119	28.47	52.97 ± 13.56		
Education						
	Specialty	215	51.44	40.25 ± 10.73	F = 44.420	<0.001
	Undergraduate	127	30.38	52.01 ± 12.18		
	Graduate Students	76	18.18	48.32 ± 12.40		
Clinical Practice Experience						
	Yes	284	67.94	44.07 ± 12.12	t = −2.785	0.006
	No	134	32.06	47.87 ± 13.38		
Past COVID-19 Infection						
	Yes	314	75.12	45.74 ± 12.81	t = 1.263	0.207
	No	104	24.88	43.93 ± 12.10		

Relationship between sense of life meaning and professional identity

As indicated in **Table 3**, the results of the Pearson correlation test revealed a strong and positive association between professional identity and the overall sense of life meaning ($r = 0.703$, $p < 0.01$). Professional identity was also positively linked with both subdimensions of life meaning — the *presence of meaning* ($r = 0.649$, $p < 0.01$) and the *search for meaning* ($r = 0.709$, $p < 0.01$).

To further examine group differences, participants were classified into three categories — low, medium, and high — according to their total life meaning scores. The one-way ANOVA results (**Table 4**) demonstrated that students with a high level of life meaning scored significantly higher in professional identity than those with moderate ($p < 0.01$) or low ($p < 0.01$) levels.

Table 3. Correlation between nursing students' sense of professional identity and sense of life meaning

Variables	Sense of life meaning	Presence	Seeking Sense
Professional Identity	0.703**	0.649**	0.709**

(**: P<0.01)

Table 4. Comparison of professional identity scores and differences among nursing students with low, medium and high levels of sense of life meaning

Sense of life meaning	Professional Identity		
	mean ± sd	F	*P*
Low level group(n = 121)	49.93 ± 15.02	144.107	*P*<0.001
Medium level group(n = 161)	58.49 ± 11.14		
High Level Group(n = 136)	75.59 ± 11.33		

This study examined the association between life meaning and professional identity among nursing students in China following the COVID-19 pandemic. The findings indicated that students reported a moderate level of life meaning. Additionally, both the *presence* and *search* dimensions of life meaning were positively correlated with professional identity, suggesting a close link between these constructs.

Historical experience with epidemics, such as SARS in 2003, has previously highlighted the public's understanding of nursing work and the role of nurses [29], which aligns with the current findings. In this study, the average professional identity score among the 418 nursing students was 61.58 ± 16.16, indicating a moderate level, comparable to the 62.02 ± 12.02 reported by Zhang *et al.* during the 2021 pandemic [6]. When compared with pre-pandemic studies, these results suggest an improvement in professional identity among nursing undergraduates [30, 31], indicating that the COVID-19 pandemic may have reinforced students' commitment to and recognition of the nursing profession. Supporting this, a prior cross-sectional study reported that 90% of nursing students believed the pandemic positively influenced the public image of nursing [6]. The relatively higher scores in *social persuasion* (3.78 ± 1.04) and *social comparison and reflection* (3.76 ± 0.93) compared to pre-pandemic studies [30–34] suggest that increased societal appreciation of nurses during COVID-19 may have strengthened students' professional identity. By reflecting on themselves and comparing their career paths with other professions, students can reinforce their professional beliefs and clarify their future direction in nursing. Although the pandemic has had far-reaching effects on medical, social, and economic systems, the associated improvement in public perception of nursing appears to provide more benefits than drawbacks in fostering

professional identity. Consistent with the study's hypothesis, nursing students' professional identity seems to have strengthened after the pandemic.

Life meaning reflects an individual's sense of purpose and the significance they attribute to their existence [4]. Nursing students, in particular, must learn to understand and confront the realities of life and death due to the nature of their future careers. Compared to pre-pandemic studies on life meaning among nursing students [35–37], the average score in this study was lower (45.29 ± 12.65). Notably, the *search for meaning* dimension scored lower than the *presence* dimension, likely due to the uncertainty and ongoing changes associated with COVID-19, which affected students' academic performance, life goals, and career planning [38]. As a result, students may have experienced heightened difficulties in finding personal purpose, leading to frustration and a diminished sense of life meaning. Prior research has shown that having a clear sense of life purpose during the pandemic can enhance engagement and provide psychological protection against fear and stress [39–41]. A strong life meaning is associated with well-being and life satisfaction, whereas a lower sense of meaning can contribute to negative emotions and decreased mental health [42].

Gender and clinical experience were also significant factors. Male students reported higher life meaning scores than female students, potentially due to greater emotional regulation and more proactive coping strategies. Female students, conversely, may experience higher levels of anxiety or depressive symptoms during stressful events, reducing motivation for self-development and, consequently, life meaning. Similarly, students without clinical experience scored higher than those with such experience, which may reflect the idealized perception of the profession prior to hands-on practice. Exposure to real-world clinical challenges, complex patient interactions, and the gap between theory and practice may contribute to uncertainty, making it more difficult for students to find a clear sense of purpose [37].

The study also confirmed a significant positive correlation between life meaning and professional identity. ANOVA results showed that students in the high life meaning group had markedly higher professional identity scores than those in the intermediate or low groups ($p<0.001$). These findings highlight the influence of life meaning on professional identity. From the perspective of positive psychology, pursuing life meaning is a key motivator for human behavior. Frankl's existential theory posits that the primary drive of humans is to find meaning and purpose in life [43]. A strong sense of life meaning enhances motivation, resilience, and goal-directed behavior, which positively influences professional development. Conversely, a weak sense of meaning can impair decision-making, reduce career engagement, and undermine professional identity.

Furthermore, the increased societal recognition of nurses during the COVID-19 pandemic may have reinforced nursing students' sense of life purpose. Observing the value and respect attributed to nursing work likely strengthened students' perception of the profession as honorable, enhancing professional pride and further solidifying their professional identity.

There is growing agreement [39, 44] that crises such as the COVID-19 pandemic can profoundly affect individuals' lives. However, guiding people to actively seek meaning and purpose can help them interpret life events and integrate these experiences with their professional responsibilities. Individuals with a strong sense of life meaning often experience a sense of transcendence, which encourages attentiveness to others and promotes altruistic behaviors [45]. Therefore, fostering awareness of life's purpose may enhance overall quality of life and increase willingness to engage in social service.

In China, the traditional education system has largely emphasized exam-oriented learning, and life education remains in its early stages [46]. Nursing students often receive little structured guidance on exploring life meaning, with some undergraduate programs offering life education only as elective courses, while some junior colleges do not provide such courses at all. This contributes to lower life meaning scores among junior college nursing students. Conversely, undergraduate programs frequently incorporate practical activities, such as voluntary organ donation initiatives or hospice care experiences, which can foster reflection on life and enhance life meaning. In this study, undergraduate students reported significantly higher life meaning scores (52.01 ± 12.18) than junior college students (40.25 ± 10.73). These findings suggest that nursing schools should develop dedicated curricula for life education and expand opportunities for social practice, aiming to cultivate students' psychological resilience, humanistic qualities, and professional identity. By doing so, nursing programs can build a competent and socially responsive workforce capable of meeting evolving societal needs.

This study has several limitations. First, the sample was drawn from a specific region, which may limit the generalizability of the results. Future research could include larger and more geographically diverse samples to strengthen external validity. Second, the cross-sectional design precludes causal inferences and does not account for potential mediating or moderating variables in the relationship between life meaning and professional identity. Lastly, this study focused solely on the influence of life meaning on professional identity; future research could examine additional factors that may contribute to the development of professional identity among nursing students.

Conclusion

In conclusion, the COVID-19 pandemic appears to have enhanced the professional identity of nursing students in China, even as their overall sense of life meaning decreased. Students with higher life meaning scores demonstrated stronger professional identity compared to those with lower scores. These findings underscore the importance of supporting nursing students in exploring and reflecting on life's meaning, which can strengthen their professional identity and prepare them for future roles in the healthcare profession.

Acknowledgments: None

Conflict of interest: None

Financial support: None

Ethics statement: None

References

1. Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain Behav Immun. 2020;87:11-17. doi:10.1016/j.bbi.2020.03.028. PMID: 32240764; PMCID: PMC7118532.
2. Si MY, Su XY, Jiang Y, Wang WJ, Gu XF, Ma L, et al. Psychological impact of COVID-19 on medical care workers in China. Infect Dis Poverty. 2020;9(1):113. doi:10.1186/s40249-020-00724-0. PMID: 32787929; PMCID: PMC7422468.
3. Sun FK, Wu MK, Yao Y, Chiang CY, Lu CY. Meaning in life as a mediator of the associations among depression, hopelessness and suicidal ideation: A path analysis. J Psychiatr Ment Health Nurs. 2022;29(1):57-66. doi:10.1111/jpm.12739.
4. He Z, Yang F, Translation. Frankl VE. The search for the meaning of Life. Beijing: Xinhua Publishing House; 2003.
5. Wang Y, Liu S, Hu X. Survey of nurses' professional identity during the novel coronavirus Pneumonia outbreak. Chin J Nurs. 2020;55(S1):710–2.
6. Zhang Z, Fu W, Tian C, Zhang F, Zhao B, Mao J, et al. Professional identity of Chinese nursing students during the COVID-19 pandemic outbreak: A nation-wide cross-sectional study. Nurse Educ Pract. 2021 Mar;52:103040. doi:10.1016/j.nepr.2021.103040. PMID: 33813343; PMCID: PMC9760126.
7. Wu R, Lin M. Survey on the status quo of professional identity of nurses in large tertiary hospitals. Int J Nurs. 2017; 36(08).
8. Yang J, Yuan L, Gao Y. Research progress of nurses's sense of meaning in life. Chin Nurs Manag. 2021;21(11):1700–4.
9. Mohammed S, Peter E, Killackey T, Maciver J. The "nurse as hero" discourse in the COVID-19 pandemic: A poststructural discourse analysis. Int J Nurs Stud. 2021;117:103887. doi:10.1016/j.ijnurstu.2021.103887. PMID: 33556905; PMCID: PMC9749900.
10. Nie S, Sun C, Wang L, Wang X. The Professional Identity of Nursing Students and Their Intention to Leave the Nursing Profession During the Coronavirus Disease (COVID-19) Pandemic. J Nurs Res. 2021;29(2):e139. doi:10.1097/jnr.0000000000000424. PMID: 33534354.
11. Chutiyami M, Bello UM, Salihu D, Ndwiga D, Kolo MA, Maharaj R, et al. COVID-19 pandemic-related mortality, infection, symptoms, complications, comorbidities, and other aspects of physical health among healthcare workers globally: An umbrella review. Int J Nurs Stud. 2022;129:104211. doi:10.1016/j.ijnurstu.2022.104211. Epub 2022 Feb 18. PMID: 35278750; PMCID: PMC8855608.
12. David HMSL, Rafael RMR, Alves MGM, Breda KL, Faria MGA, Neto M, et al. Infection and mortality of nursing personnel in Brazil from COVID-19: A cross-sectional study. Int J Nurs Stud. 2021;124:104089. doi:10.1016/j.ijnurstu.2021.104089. PMID: 34562847; PMCID: PMC8426139.
13. Jung YM, Yoo IY. The effectiveness of a career efficacy enhancement program for KOREAN nursing students: a quasi-experimental study. Nurse Educ Today. 2020;89:104423.
14. Zhang MF, Petrini MA. Factors influencing Chinese undergraduate nurs- ing students' perceptions of the nursing profession. Int Nurs Rev. 2008;55(3):274–80.
15. Ding X, Wang L, Sun J, Li DY, Zheng BY, He SW, et al. Effectiveness of empathy clinical education for children's nursing students: A quasi-experimental study. Nurse Educ Today. 2020;85:104260. doi:10.1016/j.nedt.2019.104260. PMID: 31778862.
16. Dai Z, Su X, Wang H. The effect of mindfulness level on profes- sional identity and the mediation role of psychological resilience among undergraduate nursing students in the post COVID-19 era. J Nurs Adm. 2021;21(10):697–701.

17. Yi LJ, Cai J, Ma L, Lin H, Yang J, Tian X, et al. Prevalence of Compassion Fatigue and Its Association with Professional Identity in Junior College Nursing Interns: A Cross-Sectional Study. Int J Environ Res Public Health. 2022 Nov 17;19(22):15206. doi:10.3390/ijerph192215206. PMID: 36429923; PMCID: PMC9690934.
18. Xie L, Li Y, Ge W, Lin Z, Xing B, Miao Q. The relationship between death attitude and professional identity in nursing students from mainland China. Nurse Educ Today. 2021;107:105150. doi:10.1016/j.nedt.2021.105150.
19. China N, H C O. Major adjustment!China will downgrade management of the COVID-19 from Class A to Class B[EB/OL]. Available at: http://www.gov.cn/xin- wen/2022-12/27/content_5733672.htm.
20. Steger MF, Frazier P, Oishi S, Kaler M. The meaning in life questionnaire: Assessing the presence of and search for meaning in life. J Couns Psychol. 2006; 53(1): 80–93. doi:10.1037/0022-0167.53.1.80
21. Liu S, Gan Y. Reliability and validity of the Chinese version of the meaning of Life Scale in college students. Chin Mental Health J. 2010;24(06):478–82.
22. Zhao Z, Mei Y, Wang X, Jiang H, Wang W, Lin B, et al. Meaning in life among nursing students: a latent profile analysis. BMC Nurs. 2023;22(1):264. doi:10.1186/s12912-023-01425-3. PMID: 37568145; PMCID: PMC10416489.
23. Fang Y, Han J, Wang Z. Analysis of the current status and influenc- ing factors of meaning in life among 252 ICU Nurses. J Nurs(China). 2023;30(01):60–3.
24. Chen F. The meaning of life in patients with gynecological malignant Tumor and its influencing factors[J]. Chin Clin Nurs. 2023;15(07):442–5.
25. Hao Y, Niu H, Li L, Yue S, Liu X. Measurement of professional identity in Chinese nurs- ing students. Int J Nurs Sci. 2014;1(2):137–44.
26. Zhu L, Lu D, Luo Z, Xu M, Sun L, Hu S. Characteristics of workplace violence, responses and their relationship with the professional identity among nursing students in China: a multicenter cross-sectional study. BMC Nurs. 2022 Sep 26;21(1):262. doi:10.1186/s12912-022-01037-3. Erratum in: BMC Nurs. 2022;21(1):274. doi:10.1186/s12912-022-01052-4. PMID: 36163042; PMCID: PMC9511771.
27. Haghighat S, Borhani F, Ranjbar H. Is there a relationship between moral competencies and the formation of professional identity among nursing students?. BMC Nurs. 2020;19:49.
28. Kline RB. Principles and practice of structural equation modeling. New York: Guilford; 2015.
29. Sun YM, Guo JM, Guan MY, Li XP. Study of the relations between SARS and the professional attitude of nursing students. Chin J Nurs. 2004; 39(4): 278-80.
30. Wang T, Luo Y. Correlation between care atmosphere perception in hospital and professional identity of clinical practice nursing students. Chin Nurs Res. 2018;32(05):825–8.
31. Wang S, Wu Y, Ye H. Study on correlation between profession identity and general self-efficacy among nursing students in internship in a hospital in Wenzhou city. Med and Soc. 2018;31(07):55–7.
32. Leng Y, TT L, Liu Y. Correlation betwwen professional self-concept,clinical performance and professional identity in undergratuate nursing student during internship. Chin Nurs Res. 2019;33(17):2930–4.
33. Wang J, Ding S, Sang T. A study on the correlation between undergradu- ate nursing students' professional identity and self-identity. J Nurs Adm. 2017;17(09):620–2.
34. Xiao Z, Peng Y, Fen W. The status quo and correlation analysis of career decision-making self-efficacy and professional identity of intern nursing students. J Nurs(China). 2016;23(17):58–62.
35. Li G, Hu J, Zhang Q. Analysis of the current situation and factors influenc- ing the sense of meaningfulness of life among undergraduate nursing students. J Nurs Train. 2017;32(21):1934–7.
36. Tang M, Li X. Correlation research on death attitude and sense of mean- ing in life of undergraduate nursing students. Chin Health Manag. 2018;35(07):539–41.
37. Du L. Analysis of the current situation and factors influencing the sense of meaningfulness of life among 606 intern nursing students. J Nurs(China). 2019;26(22):47–51.
38. Ekwonye AU, Ezumah BA, Nwosisi N. Meaning in life and impact of COVID-19 pandemic on African immigrants in the United States. Wellbeing Space Soc. 2021;2:100033.
39. Elemo AS, Kara E, Rostamzadeh M. The fear of COVID-19 and flourishing: the mediating role of search for meaning and presence of meaning. Curr Psychol, 2022:1–10.
40. Trzebinski J, Cabanski M, Czarnecka JZ. Reaction to the COVID-19 pandemic: the influence of meaning in life, life satisfaction, and assumptions on World orderliness and Positivity. J Loss Trauma. 2020;25(6–7):544–57.
41. Arslan G, Yıldırım M, Karataş Z, Kabasakal Z, Kılınç M. Meaningful Living to Promote Complete Mental Health Among University Students in the Context of the COVID-19 Pandemic. Int J Ment Health Addict. 2022;20(2):930-42. doi:10.1007/s11469-020-00416-8. PMID: 33169074; PMCID: PMC7609355.
42. Gao R, Cai Y, Li Y. The relationship between the meaning in life and attitude death of nurses[J]. Chin Nurs Manag. 2018;18(04):461–5.

43. Lantz J. Phenomenological reflection and time in Viktor Frankl's existential psychotherapy. J phenomenological psychol. 2000;31(2):220-31.
44. Costin V, Vignoles VL. Meaning is about mattering: evaluating coherence, pur- pose, and existential mattering as precursors of meaning in life judgments. J Pers Soc Psychol. 2020;118(4):864–84.
45. Newman DB, Schneider S, Stone AA. Contrasting effects of finding meaning and searching for meaning, and political orientation and religiosity, on feel- ings and behaviors during the COVID-19 Pandemic. Pers Soc Psychol Bull. 2022;48(6):923–36.
46. Cui J, Chen W, Chen Y. Analysis on the current situation of life education for nursing students in China based on synergistic effect. Chin Evid-Based Nurs. 2023;9(06):1017–9.