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The Correlation Between Self-Differentiation and Clinical Internship Adaptability among Nursing Interns and Its Influencing Factors

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Abstract: Objective To systematically investigate the levels of self-differentiation and clinical internship adaptability among nursing interns, explore the correlation between the two indicators, and analyze the influencing factors of their clinical internship adaptability, so as to provide a theoretical basis for formulating intervention strategies to improve nursing interns' clinical adaptability. **Methods** A cross-sectional survey was conducted with data collected via convenience sampling. The research subjects were 264 nursing interns undergoing clinical rotation from June to August 2025 in a university in Shandong Province. General information questionnaire, Self-Differentiation Scale and Clinical Internship Adaptability Scale were adopted as assessment tools, and SPSS 27.0 statistical software was used for data analysis. **Results** The total score of self-differentiation among nursing interns was (4.01±0.69), and the total score of clinical internship adaptability was (3.08±0.79). Correlation analysis revealed a significant positive correlation between self-differentiation and clinical internship adaptability ($r=0.653$, $P<0.01$). Multiple linear regression analysis demonstrated that nursing major preference, attitudes toward employment prospects, participation in social activities, academic average scores at school and self-differentiation level together accounted for 54.2% of the variance in clinical internship adaptability. **Conclusion** Nursing interns presented a moderate level of self-differentiation and a moderately low level of clinical internship adaptability. Preference for nursing major, perceptions of employment prospects, social activity participation, academic performance and self-differentiation are all influencing factors of clinical internship adaptability, among which self-differentiation serves as the strongest predictive factor.

Keywords: Nursing Interns; Self-differentiation; Clinical Internship Adaptability.

1. Introduction

With the continuous advancement of medical technology and the improvement of public medical literacy, society has raised higher comprehensive requirements for nursing staff in terms of service ability, communication competence and emergency response capacity. Therefore, improving the clinical training system and cultivating high-quality nursing interns has become a core task of nursing education[1]. Clinical internship is a critical transition stage for nursing students to transform into professional nurses. Heavy internship workload, academic assessment requirements and frequent communication with patients and their families bring persistent physical and mental pressure to interns[1-2], which further impairs their clinical operation ability, nursing service quality and post-graduation employment competitiveness[2]. Accordingly, clinical internship adaptability is of great significance for nursing students' career development.

Clinical internship adaptability refers to the ability of nursing interns to adjust their cognition and behaviors to adapt to complex ward clinical environments[3]. Interns with high adaptability can calmly cope with various clinical emergencies and psychological setbacks[4]. Nevertheless, most nursing interns are prone to clinical maladjustment due to the high-pressure, high-risk and complicated clinical working environment[5]. Long-term adaptation disorders will trigger inferiority, anxiety and other negative emotions, damage their physical and mental health, and hinder the cultivation of professional practical skills[6].

Most current nursing interns are only children with relatively weak psychological adjustment ability, making self-differentiation a prominent psychological variable affecting their internship experience. Proposed by Bowen in 1978, self-differentiation is defined as an individual's capacity to balance rational thinking and emotional perception, and maintain independent self while keeping interpersonal connection[7]. As the core concept of Bowen Family Systems Theory, self-differentiation reflects the ability to separate objective events from subjective negative emotions. Individuals with high self-differentiation can maintain rational thinking under pressure without being trapped by emotional disturbance[8], and keep stable psychological boundaries both internally and in interpersonal interactions[9].

Existing studies have separately discussed the predictive effect of self-differentiation or individual demographic characteristics on clinical adaptation, while few researches comprehensively analyze the combined influencing factors of nursing interns' clinical internship adaptability and clarify the internal correlation mechanism between self-differentiation and adaptation performance. Therefore, this study adopted a cross-sectional design to investigate the current status of self-differentiation and clinical internship adaptability among nursing interns, analyze demographic differences, explore their correlation, and screen key influencing factors. The findings can provide theoretical support for developing targeted intervention strategies to improve nursing interns' clinical adaptation.

2. Objects and Methods

2.1. Research Subjects

Convenience sampling was adopted to recruit nursing interns receiving clinical rotation training from a university in Shandong Province between June and August 2025.

Inclusion criteria: 1) Internship duration ≥ 6 months; 2) Age ≥ 18 years old; 3) Voluntary participation with informed consent; 4) No reading or cognitive comprehension disorders.

Exclusion criteria: 1) Interns suspended from rotation due to illness, personal leave or school suspension during investigation; 2) Subjects with cognitive or mental disorders that block normal communication; 3) Refuse to cooperate with questionnaire survey.

A total of 23 independent variables were included in this study. The required sample size was calculated as 5–10 times the number of independent variables. Considering invalid questionnaires and sample loss during data collection, an additional 10% sample size was supplemented, and the theoretical sample range was 128–256. Finally, 264 valid subjects were enrolled, meeting the sample size requirement. All participants signed informed consent voluntarily.

2.2. Research Tools

2.2.1. General Information Questionnaire

The self-designed questionnaire was compiled after extensive literature review according to research purposes, covering 15 items: age, gender, educational background, residential area, personality, political status, only-child status, student cadre experience, frequency of extracurricular activities, participation in social practice, preference for nursing major, attitudes toward nursing employment prospects, average academic performance at school, monthly family income, and whether family members engage in nursing-related work.

2.2.2. Differentiation of Self Inventory (DSI)

The Differentiation of Self Inventory was compiled by Skowron et al. in 1998 based on Bowen Family Systems Theory, and translated into Chinese by Wu Yuhui[11]. The scale includes 4 dimensions and 27 items: emotional reactivity (6 items), I-position (5 items), emotional cutoff (6 items), and fusion with others (10 items). A 6-point Likert scoring method (1–6 points) was adopted, including 22 reverse-scored items. The total score ranges from 27 to 162; higher scores represent higher self-differentiation level. The Cronbach's α coefficient of the scale was 0.896 with good construct validity.

2.2.3. Clinical Internship Adaptability Scale

The Clinical Internship Adaptability Scale was developed by Lei Jie[12], consisting of 4 dimensions and 28 items: interpersonal communication (9 items), behavioral performance (9 items), professional cognition (5 items), and emotional status (5 items). All items adopt 5-point Likert scoring (1–5 points), with a total score range of 28–140. Lower total scores indicate more severe clinical maladjustment. The Cronbach's α coefficient of the scale was 0.962, showing excellent reliability and validity.

2.3. Data Collection and Quality Control

Before formal investigation, researchers introduced the research purpose, significance and filling requirements to all subjects, and collected questionnaires online and offline after obtaining voluntary informed consent. Unified standardized instructions were used to ensure all interns fully understood filling rules and completed questionnaires independently.

After questionnaire submission, researchers checked each item item by item. For incomplete or logically contradictory contents, subjects were immediately contacted to supplement and correct information, so as to guarantee the integrity and validity of all collected data.

2.4. Statistical Analysis

Excel database was established for data sorting and coding, and double cross-check was performed before analysis. SPSS 27.0 statistical software was used for data processing, two-tailed test was adopted, and the test level $\alpha=0.05$ ($P<0.05$ was statistically significant).Descriptive statistics: frequency, percentage, mean ± standard deviation to describe demographic characteristics, self-differentiation and clinical internship adaptability; Intergroup comparison: independent sample t-test and one-way ANOVA to compare differences of self-differentiation and clinical adaptability among subjects with different demographic characteristics; Correlation analysis: Pearson correlation analysis to explore the correlation between self-differentiation and clinical internship adaptability;

Multivariate linear stepwise regression: screen independent influencing factors of nursing interns' clinical internship adaptability.

3. Results

3.1. Demographic Characteristics of Nursing Interns

A total of 264 nursing interns were included in this study, and their demographic characteristics were analyzed by descriptive statistics, as shown in Table 1.

3.2. Scores of Self-Differentiation and Clinical Internship Adaptability

The total score of self-differentiation was (108.30±18.52), with average item score (4.01±0.686). The total score of clinical internship adaptability was (86.19±22.18), with average item score (3.08±0.79). The total scores of the two scales are presented in Table 2 and Table 3.

3.3. Univariate Analysis of Clinical Internship Adaptability

Significant differences in clinical internship adaptability scores were found among interns with different major preference, employment prospect attitudes, social activity participation and academic performance ($P<0.05$), as shown in Table 4.

3.4. Correlation Between Self-Differentiation and Clinical Internship Adaptability

Shapiro-Wilk normality test verified all variables conformed to normal distribution ($P>0.05$). Pearson correlation analysis showed that the total score of self-differentiation was significantly positively correlated with clinical internship adaptability ($r=0.653$, $P<0.01$). Except I-position, all dimensional correlations were statistically significant ($P<0.05$), as shown in Table 5.

Table 1. Demographic Characteristics of Nursing Interns (n=264, %)

Item	Group	Number	Percentage
Age	<18	3	1.1
	19–21	110	41.7
	22–24	136	51.5
	>25	15	5.7
Gender	Female	215	81.4
	Male	49	18.6
Education	Junior college	31	11.7
	Undergraduate	208	78.8
	Postgraduate	25	9.5
Only-child	Yes	76	28.8
	No	188	71.2
Personality	Outgoing	53	20.1
	Neutral	180	68.2
	Introverted	31	11.7
Hometown	Urban	114	43.2
	Rural	150	56.8
Student cadre	Yes	108	40.9
	No	156	59.1
Political status	Mass	72	27.3
	League member	156	59.1
	CPC member	36	13.6
Attitude toward employment prospects	Positive	157	59.5
	Negative	58	22.0
	Unclear	49	18.6
Preference for nursing major	80–100	29	11.0
	60–80	113	42.8
	40–60	81	30.7
	20–40	25	9.5
	0–20	16	6.1
Average academic score	≥90	42	15.9
	70–89	200	75.8
	60–69	18	6.8
	<60	4	1.5
Social activity participation	Never	11	4.2
	Occasionally (1–2 times/year	125	47.3
	Sometimes (1–2 times/quarter)	75	28.4
	Frequently (1–2 times/month)	43	16.3
	Very frequent (≥1 time/week)	10	3.8
Medical family members	Yes	77	29.2
	No	187	70.8
Monthly family income per capita (CNY)	<1000	7	2.7
	1000–2000	55	20.8
	2001–3000	61	23.1
	>3000	141	53.4
Weekly extracurricular activity frequency	Never	11	4.2
	≤1 time	89	33.7
	2–3 times	141	53.4
	4–5 times	18	6.8
	≥6 times	5	1.9

Table 2. Total and Dimensional Scores of Self-Differentiation (n=264, Score, $\bar{x}$±s)

Dimension	Total Score	Average Item Score	Rank
I-position	21.61±3.30	4.32±0.66	1
Emotional cutoff	22.46±5.92	3.75±0.99	2
Fusion with others	35.12±8.64	3.51±0.86	3
Emotional reactivity	12.77±3.45	2.13±0.58	4
Total self-differentiation	108.30±18.52	4.01±0.686	—

Table 3. Total and Dimensional Scores of Clinical Internship Adaptability (n=264, Score, $\bar{x}$±s)

Dimension	Total Score	Average Item Score	Rank
Emotional status	25.03±6.83	5.01±1.37	1
Professional cognition	16.44±4.31	3.29±0.86	2
Behavioral performance	24.68±6.57	2.74±0.73	3
Interpersonal communication	20.04±6.38	2.23±0.49	4
Total clinical internship adaptability	86.19±22.18	3.08±0.79	—

3.5. Multiple Linear Regression Analysis of Influencing Factors

Variables with statistical significance in univariate analysis and total self-differentiation score were taken as independent variables, and clinical internship adaptability total score was the dependent variable for stepwise multiple linear regression. Total self-differentiation, major preference, social activity participation, employment prospect attitude and academic performance entered the regression equation ($P<0.05$). The overall model was statistically significant ($F=63.361$, $P<0.001$), explaining 54.2% of the total variance of clinical internship adaptability (adjusted $R^2=0.542$). Total self-differentiation presented the strongest positive predictive effect ($\beta=0.627$, $P<0.001$, 95%CI: 0.652~0.850). Variable assignment is shown in Table 6, regression results in Table 7.

Table 4. Univariate Analysis of Clinical Internship Adaptability Among Interns with Different Characteristics（n=264, Score, $\bar{x}\pm s$）

Item	Group	n	Total Score	F/t	P
Age	<18	3	67.66±30.98	1.601	0.190
	19–21	110	86.18±21.73		
	22–24	136	85.60±22.12		
	>25	15	95.40±23.32		
Gender	Female	215	86.04±21.31	0.818	0.818
	Male	49	86.85±25.88		
Education	Junior college	31	77.67±24.39	3.036	0.050
	Undergraduate	208	86.87±21.52		
	Postgraduate	25	91.08±23.02		
Only-child	Yes	76	85.97±26.13	0.667	0.917
	No	188	86.28±20.46		
Personality	Outgoing	53	82.62±26.61	1.364	0.257
	Neutral	180	86.46±20.47		
	Introverted	31	90.77±23.24		
Hometown	Urban	114	84.78±23.95	1.829	0.370
	Rural	150	87.26±20.76		
Student cadre	Yes	108	83.22±23.31	2.278	0.070
	No	156	88.25±21.20		
Political status	Mass	72	88.36±22.07	0.970	0.381
	League member	156	86.15±21.69		
	CPC member	36	82.05±24.47		
Employment prospect attitude	Positive	157	80.89±22.69	14.503	<0.001***
	Negative	58	98.00±19.95		
	Unclear	49	89.22±16.74		
Major preference	80–100	29	75.00±29.06	5.509	<0.001***
	60–80	113	82.42±21.49		
	40–60	81	92.18±17.30		
	20–40	25	90.60±17.69		
	0–20	16	95.93±28.81		
Academic score	≥90	42	82.02±25.61	2.732	0.044*
	70–89	200	85.90±21.31		
	60–69	18	94.11±20.08		
	<60	4	109.00±20.83		
Social activity participation	Never	11	109.90±21.72	6.880	<0.001***
	Occasionally	125	88.95±19.04		
	Sometimes	75	85.01±21.45		
	Frequently	43	75.60±25.80		
	Very frequent	10	80.10±24.25		
Medical family member	Yes	77	83.85±24.44	1.210	0.272
	No	187	87.16±21.18		
Monthly income per capita	<1000	7	88.71±25.09	0.282	0.839
	1000–2000	55	87.96±21.66		
	2001–3000	61	86.88±21.20		
	>3000	141	85.08±22.82		
Weekly extracurricular activity	Never	11	98.27±18.28	0.957	0.432
	≤1 time	89	85.56±18.28		
	2–3 times	141	85.53±24.38		
	4–5 times	18	88.38±15.75		
	≥6 times	5	81.80±30.74		

*P<0.05, **P<0.01, ***P<0.001

Table 5. Correlation Between Self-Differentiation and Clinical Internship Adaptability

Index	Total Clinical Adaptability	Professional Cognition	Emotional Status	Interpersonal Communication	Behavioral Performance
Total self-differentiation	0.653**	0.565**	0.607**	0.572**	0.587**
Emotional reactivity	0.812**	0.806**	0.769**	0.696**	0.704**
I-position	0.097	0.095	0.051	0.098	0.090
Fusion with others	0.703**	0.605**	0.678**	0.602**	0.635**
Emotional cutoff	0.623**	0.524**	0.556**	0.572**	0.574**

**Correlation is significant at the 0.01 level (2-tailed).

Table 6. Variable Assignment for Regression Analysis

Variable	Code	Assignment Rule
Total self-differentiation	X_1	Continuous raw score
Major preference	X_2	80–100=1, 60–80=2, 40–60=3, 20–40=4, 0–20=5
Social activity participation	X_3	Frequently=1, Very frequent=2, Sometimes=3, Occasionally=4, Never=5
Employment prospect attitude	X_4	Positive=1, Negative=2, Unclear=3
Average academic score	X_5	≥90=1, 70–89=2, 60–69=3, <60=4

Table 7. Stepwise Multiple Linear Regression Analysis of Influencing Factors of Clinical Internship Adaptability

Factor	B	Std.Error	β	t	P	95%CI
Constant	-31.437	6.966	—	-4.513	<0.001	-45.154 ~ -17.719
Total self-differentiation	0.751	0.050	0.627	14.940	<0.001	0.652 ~ 0.850
Major preference	3.823	0.973	0.174	3.930	<0.001	1.907 ~ 5.739
Social activity participation	3.715	0.825	0.191	4.505	<0.001	2.091 ~ 5.340
Employment prospect attitude	3.957	1.259	0.140	3.143	0.002	1.478 ~ 6.436
Average academic score	4.273	1.751	0.103	2.440	0.015	0.824 ~ 7.721

$R=0.742$, $R^2=0.551$, adjusted $R^2=0.542$, $F=63.361$, $P<0.001$

4. Discussion

4.1. Current Status of Self-Differentiation and Clinical Internship Adaptability

This study found that nursing interns showed a moderate level of self-differentiation, consistent with the research of Liu Siwei et al.[13]. Systematic nursing education with humanistic courses can continuously train interns' ability to distinguish emotions and set psychological boundaries, so as to improve overall self-differentiation level[14]. Modern nursing education attaches importance to comprehensive literacy cultivation, and humanistic courses effectively enhance students' psychological adjustment and interpersonal ability, reducing excessive emotional fusion[15]. All subjects in this study were senior nursing students who had received three years of systematic professional training, with relatively mature psychological quality and social adaptability, which explained their moderate self-differentiation level.

The clinical internship adaptability of interns was at a moderately low level, indicating widespread clinical maladjustment, which was consistent with the research of Gao Lishuo[16]. Dimensional scores ranked as professional cognition, emotional status, behavioral performance, interpersonal communication. The highest score of professional cognition demonstrated that systematic campus training had established basic professional identity and positive occupational emotion for interns, providing psychological support for clinical adaptation, matching the conclusion of Xu Duanya et al.[17].

4.2. Influencing Factors of Clinical Internship Adaptability

4.2.1. Preference for Nursing Major

Major preference is a core factor affecting nursing interns' clinical internship adaptability. A cross-sectional survey conducted by Pan Qianwen et al.[18] on undergraduate nursing interns verified that major preference was an independent influencing factor of transition shock, and transition shock exerted a direct negative effect on clinical internship adaptability.

On the one hand, interns with high major preference possess strong professional identity, regard nursing as a way to realize self-worth, and hold high standards for internship performance, operational skills and patient evaluation. However, clinical nursing work is cumbersome and high-intensity, accompanied by disconnection between theory and practice as well as frequent doctor-patient conflicts. The gap between ideal occupation cognition and clinical reality easily triggers loss, anxiety and other negative emotions, reduces internship initiative and hinders clinical adaptation progress, which conforms to the conclusion that interns with higher major preference suffer more severe transition shock caused by idealized occupational cognition [18].

On the other hand, interns who love nursing devote deeper emotional energy, overly care about personal performance and others' evaluation, and have low tolerance for operational errors. Tiny mistakes or negative feedback can trigger self-doubt and psychological pressure, interfering with clinical performance and delaying adaptation. In contrast, interns with low major preference invest limited emotion in nursing work, will not excessively dwell on internship performance, can objectively view clinical setbacks and adjust deficiencies timely, showing stronger psychological tolerance and faster adaptation to clinical rhythm with weaker negative impact from transition shock.

A systematic review confirmed that major preference, academic performance, social practice and employment attitude were key predictive variables of nursing interns' transition shock; various individual traits change clinical adaptability through the mediating path of transition shock[19]. Nursing educators should adopt hierarchical intervention strategies: guide interns with high major preference to recognize real clinical working conditions objectively, relieve psychological pressure and adjust over-high occupational expectations; strengthen professional value publicity for interns with low major preference to cultivate internal occupational interest, narrow the adaptation gap between different groups and comprehensively improve nursing interns' clinical adaptability.

4.2.2. Attitudes Toward Employment Prospects

Contrary to conventional cognition that interns with optimistic employment attitudes adapt to clinical practice faster, this study found that interns holding negative attitudes toward employment prospects obtained higher clinical adaptability scores. Traditional studies believed that optimistic interns maintained higher internship initiative and coping motivation to overcome difficulties, thus achieving better clinical adaptation.

Possible explanations: Interns with negative employment attitudes fully recognize their insufficient competitiveness, so they focus more on accumulating practical experience and improving operational skills during internship to make up for personal shortcomings, showing stronger clinical adaptability. Conversely, interns with optimistic employment prospects may hold fluke mentality, lack internship motivation and hinder adaptation progress. The result suggests nursing educators should carry out targeted differentiated employment guidance: transform the anxiety of pessimistic interns into learning motivation, and remind optimistic interns to value clinical practice accumulation to improve employment competitiveness, which matches the hierarchical employment guidance framework proposed by Liu Jing et al.[20]. Yang Congyan et al.[21] also verified that employment attitude was an independent demographic factor affecting interns' clinical adaptation.

4.2.3. Participation in Social Activities

This study reached an inconsistent conclusion with traditional views: interns who rarely participated in social activities achieved higher clinical adaptability scores. Conventional viewpoints hold that frequent social practice improves interns' communication and coordination ability, facilitating adaptation to complicated clinical environments.

This study speculated that interns with less social participation were more concentrated, able to devote themselves to clinical theoretical learning and operational training without interference from external affairs, thus showing higher internship engagement and faster adaptation. Interns taking part in various social activities frequently possess comprehensive literacy but suffer scattered energy, unable to fully invest in clinical rotation and slow down adaptation progress. Unbalanced distribution of spare time directly reduces internship engagement and damages long-term employment competitiveness, which has been confirmed by cross-sectional surveys[22]. Time management tendency is closely correlated with interns' learning engagement and clinical performance; excessive extracurricular affairs occupy study time and reduce clinical adaptation ability[23].

Nursing colleges and clinical teaching bases should conduct time management education to guide interns to balance social practice and clinical learning. For interns with frequent social activities, educators should advise them to cut unnecessary extracurricular tasks and reserve sufficient time for clinical operation review and professional knowledge consolidation. For interns with rare social participation, moderate professional volunteer activities should be encouraged to exercise communication skills gradually, balancing internship concentration and comprehensive literacy development to avoid adaptation barriers caused by unreasonable schedule arrangement[24].

4.2.4. Academic Performance at School

The study showed that interns with lower average academic scores obtained higher clinical adaptability scores, conflicting with the stereotype that excellent academic performance corresponds to stronger clinical adaptation. Traditional studies proposed that top students master solid professional knowledge and transform theory into practice more efficiently to adapt to clinical work faster, while this study drew an opposite result. Ma Xiaoyan[25] also pointed out that academic scores could not serve as a single standard to predict clinical adaptation, and the influence of academic performance was far weaker than emotional status and learning initiative.

Possible reasons: Interns with poor academic performance recognize their insufficient knowledge reserve, maintain modest attitudes during internship, take the initiative to observe, consult teachers and practice operations repeatedly to compensate theoretical deficiencies and improve clinical adaptability rapidly. Nevertheless, high-score students set strict self-requirements, overly magnify the gap between classroom theory and clinical practice, easily fall into anxiety and disturb clinical adaptation progress.

4.2.5. Self-Differentiation

Self-differentiation is one of the critical influencing factors of nursing interns' clinical internship adaptability. On the one hand, the core connotation of self-differentiation lies in separating objective stressful events from subjective negative emotions, acting as a fundamental psychological barrier for interns to cope with persistent multiple clinical pressures. Nursing interns face various stressors including failed venipuncture, doctor-patient conflicts, negative comments from preceptors and emergency rescue tasks during rotation. Interns with low self-differentiation tend to adopt negative attribution styles[26], attribute all internship mistakes to personal incompetence, form long-term negative self-cognition and choose evasive, perfunctory coping strategies[27].

On the other hand, self-differentiation reconstructs individuals' cognitive evaluation mode toward internship pressure and alleviates transition shock from theoretical classroom to high-intensity clinical practice. Xiong Xiaying et al.[28] proposed that self-differentiation could buffer the gap between occupational expectation and clinical reality, reducing the incidence of internship burnout and clinical adaptation disorders. There exists an obvious gap between ideal classroom teaching and heavy ward work. Interns with low self-differentiation habitually attribute all trial-and-error internship failures to personal ability defects, forming negative self-concept and passive coping styles; in contrast, interns with high self-differentiation can objectively distinguish temporary internship deficiencies from long-term occupational value, establishing problem-solving-oriented positive thinking, and this cognitive difference directly determines overall career adaptability[29].

A randomized controlled intervention study conducted by Liu Siwei[5] verified the causal relationship from the reverse perspective: group psychological counseling targeting Satir model significantly improved interns' total clinical adaptation score and stress coping dimension score after elevating self-differentiation level. Nursing colleges can regularly carry out positive psychological group counseling to train interns' emotional separation and psychological boundary construction ability, fundamentally alleviating internship anxiety and adaptation disorders caused by low self-differentiation[30].

5. Conclusion

Nursing interns presented a moderate level of self-differentiation and moderately low clinical internship adaptability. Self-differentiation, preference for nursing major, attitudes toward employment prospects, social activity participation and academic performance are key influencing factors of clinical internship adaptability.

This study has certain limitations. As a cross-sectional survey, it can only analyze correlations between variables rather than clarify causal relationships and long-term dynamic changes. All data were collected through self-reported scales, easily affected by subjective bias, reducing data objectivity and comprehensiveness. Future research can carry out multi-center longitudinal follow-up surveys with larger sample sizes, or adopt dynamic network analysis to explore causal links and variation rules between nursing interns' clinical adaptability and relevant psychological variables.

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