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PROFESSIONAL SELF-CONCEPT AS A PREDICTOR OF DEPRESSION, ANXIETY, AND STRESS AMONG NURSES

Nazia Qureshi[1], Shukria Saleem[2], Komal Bakhtyar[3], Muhammad Abdullah[4], Tahir Ullah[5], Ahmad Ali[6], Abdullah[*7], Hafiza Kanwal Gull[8], Sumbal Haroon[9]

[1]*Nursing Instructor/Clinical Psychologist/Speech & Language Therapist working at College of Nursing- Khyber Teaching Hospital Peshawar, Pakistan.*
[2]*Registered Nurse at Medical Teaching Institute-Lady-Reading Hospital Peshawar, Pakistan*
[3]*Registered Nurse at Medical Teaching Institute-Khyber Teaching Hospital Peshawar Pakistan*
[4]*Registered Nurse at Medical Teaching Institute-Khyber Teaching Hospital Peshawar Pakistan*
[5]*Registered Nurse at Medical Teaching Institute-Khyber Teaching Hospital Peshawar Pakistan*
[6]*Ayub International College of Nursing and Allied Health Sciences*
[*7]*Registered Nurse at Medical Teaching Institute -Hayatabad Medical Complex Peshawar Pakistan*
[8]*City University of Science and Technology Peshawar Pakistan*
[9]*City University of Science and Technology Peshawar Pakistan*

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Corresponding Author: *
Abdullah

Abstract

Background: *A nurse with a strong professional self-concept likely feels competent and effective in their clinical judgments and care delivery. This sense of mastery and professional worth may directly counteract feelings of helplessness and inefficacy that are central to mental illness.*

Aim: *To explore the relation of Nurses' professional self-concept with their mental health (depression, anxiety, & stress), for nurturing healthier nursing workforce that directly translates into a healthier population.*

Methodology: *The study was conducted in tertiary care hospitals in Peshawar, Pakistan using Analytical Cross-Sectional study design. The calculated sample size was n=290 selected via Non-Probability Convenience Sampling Technique. An informed consent was presented, and anonymity was guaranteed to all the participants. Data were collected using a structured self-reported questionnaire consist of Demographic variables, DASS-21 i.e Depression, Anxiety and Stress Scale and Nursing self- Concept Instrument. Pearson-R was applied to find the association between NPSC, depression, anxiety, and stress. Linear Regression test was applied to predict the changes in the dependent variables i.e depression, anxiety and stress caused by the independent variables (Nurse's professional self-concept).*

Result: *Nurse's professional self-concept (NPSC) was significantly and negatively correlated with depression,* $r(288) = -0.65$, $p < 0.001$, *stress,* $r(288) = -0.61$, $p < 0.001$, *and anxiety,* $r(288) = -0.58$, $p < 0.001$. *In regression analysis, the unstandardized coefficient (B = -0.450) means that for every 1 unit increase in professional self-concept, the depression and anxiety score decreases by 0.45 units, whereas stress decrease by 0.368 (B = -0.368).*

Conclusion: *Healthcare organizations must cultivate a supportive culture that genuinely values the nursing role by providing meaningful recognition, creating*

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avenues for nurses to participate in decision-making, and investing in continuous professional growth. This will enhance nurses perceived support and sense of belonging is an external motivation to enhance their professional self-concept.

INTRODUCTION

A nurse's professional self-concept includes the beliefs, values, and attitudes that one as a nurse has about oneself and takes into consideration the factors like one's own competence perception, flexibility, leadership skills, career satisfaction, and the fundamental nurse-person identity. A strong, positive professional self-concept is theorized to serve as a psychological buffer, shaping how nurses interpret and respond to the inherent stresses of their roles (Miao, Liu, Zhou, Zou, Song, Joanne W.Y. Chung, *et al.*, 2024a). Nurses see their professional self-concept in four main ways: identity, competence, care, and knowledge. What shapes this self-concept falls into three main groups with eight subthemes. First, personal factors-like their mindset and how they feel about nursing-play a big role. Second, job-related behaviors matter too, especially how they act in their roles and how much they focus on learning. Third, the environment and outside influences come into play. Things like how others judge nurses, how they spend their time, the daily tasks they handle, the atmosphere at work, their education, and the support they feel-all of this shapes how nurses see themselves as professionals (Yuksel and Erzincanli, 2021).

Nursing is a profession that is difficult to overstate in its demands and which is characterized by high-stakes situations and emotional labor along with frequent human suffering (Khodadadi *et al.*, 2016) and this situation is compounded by the presence of workplace bullying which can be described as repeated harmful acts directed at nurses involving verbal insults, humiliation, intimidation, and sabotage leading to severe psychological consequences such as depression, anxiety, post-traumatic stress disorder, and burnout. This, result in the nurse's professional self-concept being negatively affected, and shape a negative image of himself/herself and their career in their schema (Hosseini *et al.*, 2021). The psychological well-being of nurses has become a major issue worldwide, with high depression, anxiety, and stress rates often obtained. Not only do these mental health problems affect the individuals concerned, but they also pose serious risks to patient safety, quality of care, and health care personnel's sustainability, thus contributing to burnout, absenteeism, and turnover rate (Li, Liu, Huang and Zeng, 2025). Despite the known prevalence of depression, anxiety, and stress, interventions often remain focused on organizational-level changes or reactive psychological support, overlooking the potential of strengthening the professional identity of the nurse as a proactive, protective strategy (Saberi *et al.*, 2022).

The theories of social cognitive and self-concept indicate that those having a favorable self-image in a particular area are more likely to experience self-efficacy, set higher goals and be persistent when facing difficult situations (Stajkovic and Luthans, 2002) . This can be translated into nursing whereby a nurse with a strong sense of self professionally is quite probably competent and effective in making clinical decisions and delivering health care. The fluency and worthiness in one's profession may very well be the opposite of the feelings of incapacity and non-effectiveness that depression and anxiety thrive on (Devi *et al.*, 2022). Furthermore, while the majority of the systemic stressors are hard to change quickly, professional self-concept can still be developed and strengthened through educational curricula, mentoring, creating a positive culture at the workplace, and reflective practice. Hence, building a professional identity could be a cost-effective strategy to promote the stability of the workforce and the well-being of nurses (Miao, Liu, Zhou, Zou, Song, Joanne W.Y. Chung, *et al.*, 2024b). Although a lot of research has been devoted to work-related external stressors such as heavy workload, shortage of personnel, and administrative pressures, it is increasingly accepted that internal, personal resources may have an equally important role in determining psychological outcomes. It is here that the concept of a nurse's professional self-concept becomes profoundly significant (Young Choi and Hee Lee, 2022).The results of the study can serve as validation for practicing nurses of the need for

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fostering their own professional identity and offer them a psychological framework for their responses. The education of nursing would be greatly emphasized by the correlation between self-concept and mental health as the decisive factor for professional identity development to be integrated into the undergraduate and continuing education curriculum in a very strong manner, going the way from merely skill acquisition to the one of creating a resilient professional identity. Healthier nursing personnel mean directly healthier population. Consequently, the main goal of this research is to find out by means of empirical methods how far a nurse's professional self-concept can be a predicting factor for the levels of depression, anxiety, and stress.

Theoretical Background

The study examined how professional self-concept affects depression and anxiety and stress through its application of PERMA theory and Social Cognitive Theory. The PERMA framework, which includes Positive Emotions and Engagement and Relationships and Meaning in life and Accomplishment, establishes the main factors that The combination of reduced positive emotions together with two separate conditions produces conflictual relationships which create life purpose voids and result in people experiencing depression and anxiety and stress.

determine nurses' professional self-concept according to Kovich et al. The healthcare organizations should implement these elements because they will enhance nurses' confidence and job satisfaction and resilience. The process of improving professional self-concept requires nurses to achieve recognition through their accomplishments while building significant relationships and receiving chances to develop their skills.

- Eroding Positive Emotions (P) through negative thinking and emotional vulnerability.
- The process of avoiding while using ineffective coping methods leads to a decrease in Engagement (E).
- The process of social isolation along with negative social interactions leads to a decline in Relationships (R).
- The process of self-efficacy impairment together with negative self-talk creates a Meaning (M) distortion.

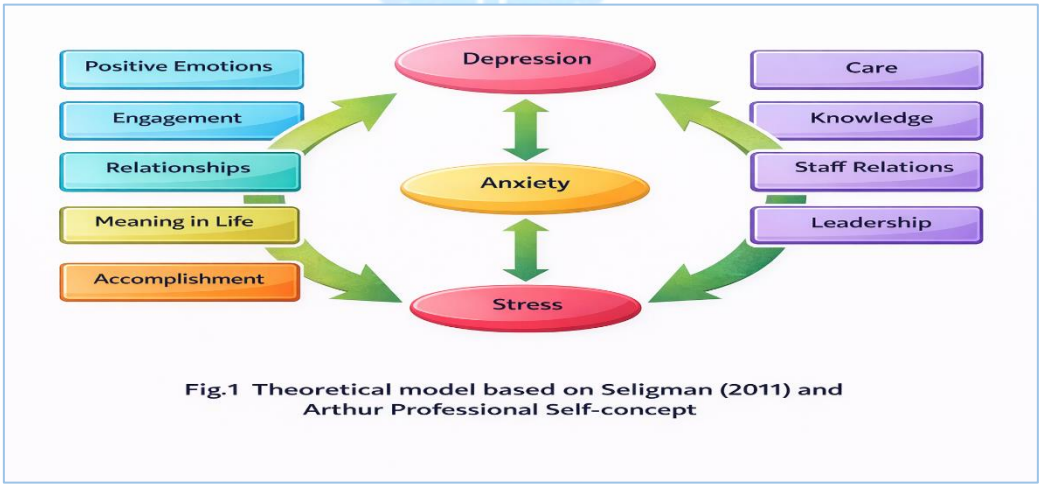


Fig.1 Theoretical model based on Seligman (2011) and Arthur Professional Self-concept

- The Achievement (A) process becomes hindered because people lack both reinforcement and driving forces.

Conceptual Framework

In this cross-sectional study, conceptual framework predicts the impact of different sub domains of self-concept on mental health issues (stress, anxiety, depression) among nurses.

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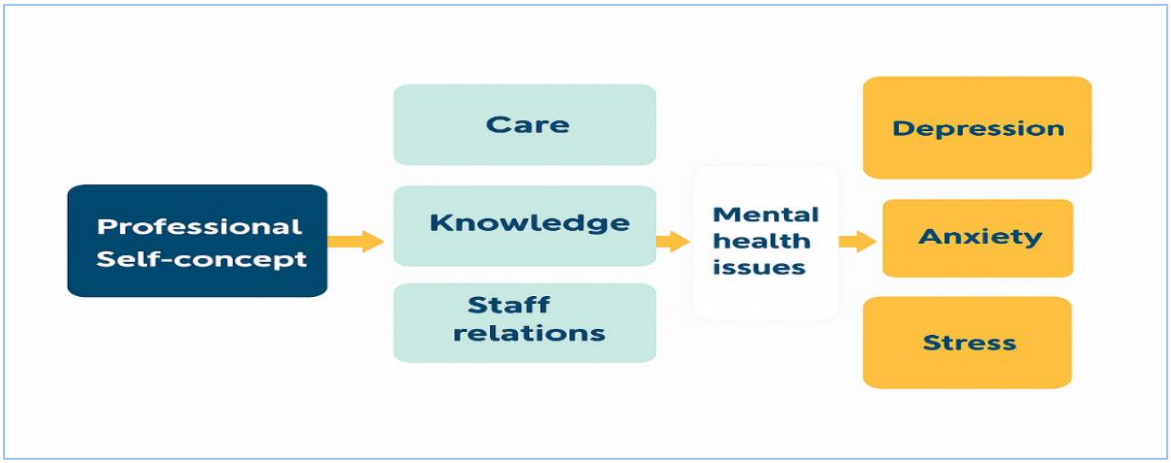


Figure 1: Conceptual Framework: Professional Self-Concept as a Predictor of Depression, Anxiety, and Stress among Nurses

Methodology

The study was conducted in three (3) tertiary care hospitals in Peshawar region Pakistan, using Analytical Cross-Sectional study design. The calculated sample size was n=290. Non-Probability Convenience Sampling Technique was used for selecting study participants. Nurses having experience more than one year were included in the study. An informed consent was presented and explained to each participant for his/her agreement. Anonymity was guaranteed to all the participants. Data were collected using a structured self-reported questionnaire consist of Demographic variables Age, Gender, Education Level and DASS-21 i.e Depression, Anxiety and Stress Scale composed of 21 items on 4-point Likert scale from Never (0)-often (3) (Lovibond,1996) for assessing depression, anxiety and stress. Professional self- concept of nurses was measured through Nursing self- Concept Instrument (Angel, Craven & Denson, 2016) composed of 14 items on Eight-point Likert scale i.e Strongly Disagree to Strongly Agree. This tool further has four subscales i.e Care (1-3), Knowledge (1-4), Staff relations (1-4) and Leadership (1-3).

In descriptive statistics, the Mean (∓), median (IQR) and standard deviation (s) were calculated for numerical variables and the frequency and percentages (%) were calculated for categorical variables like gender, age groups and education level of the Participants. Pearson-R was applied to find the association between nurse's professional self-concept, depression, anxiety, and stress. Linear Regression test was applied to predict the changes in the dependent variables (depression, anxiety & stress) caused by the independent variables (Nurse's professional self-concept).

RESULT

1. Demographic Data

The sample used for the study was composed of 290 individuals. A large portion of them were in the age of 31–35 years (47.9%), while the next largest groups were 25–30 years (24.8%) and 36-40 years (21.4%). There were very few participants in the older age groups, with only 4.5% being 41-45 years and 1.4% being above 46 years. Out of the total, 74.8% were females and 25.2% were males. Getting to education, almost a half were post-RN holders (48.3%), followed by General Nursing Diploma (24.1%), BSN (22.8%), and MSN (4.5%).

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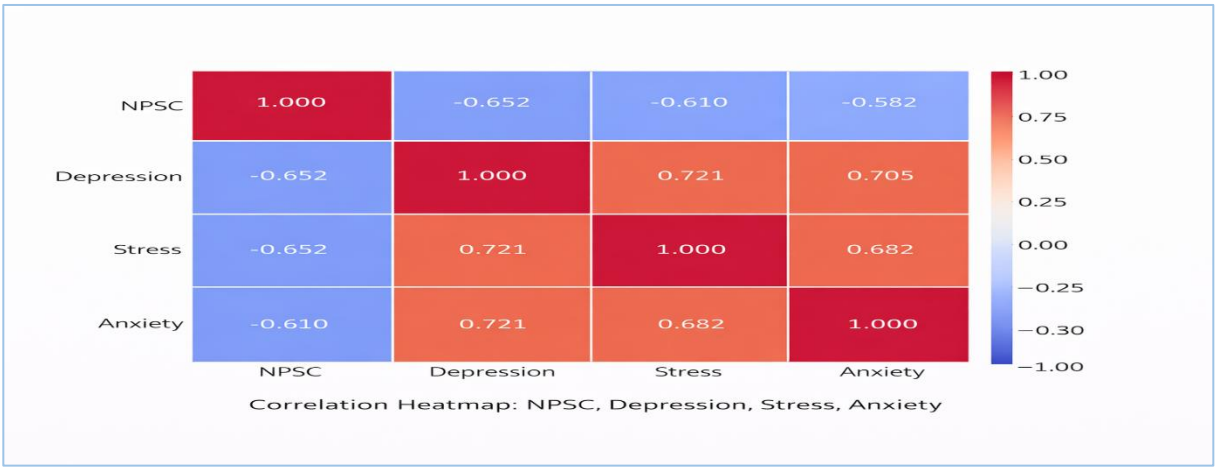
Table 1: Demographic Data of the Participants

Variable	Category	Frequency	Percent
Age Distribution	25–30 Years	72	24.8
	31–35 Years	139	47.9
	36–40 Years	62	21.4
	41–45 Years	13	4.5
	46 and above	4	1.4
	Total	**290**	**100.0**
Gender	Male	73	25.2
	Female	217	74.8
	Total	**290**	**100.0**
Education Level	General Nursing – Diploma	70	24.1
	Post-RN	140	48.3
	BSN	66	22.8
	MSN	13	4.5
	Total	**290**	**100.0**
Years of Experience	1-5 Years	151	52
	6-10 Years	74	26
	11-15 Years	56	19
	16 & Above	9	3
	Total	**290**	**100.0**

2. Association Between Professional Self Concept and Depression, Anxiety and Stress: Pearson's R Correlation Test

To establish the linkage of Nurses' Professional Self Concept (NPSC) and mental health variables of depression, stress, and anxiety, a Pearson product–moment correlation was employed. The result showed a robust and negative correlation with depression, r (288) = –.65, p < .001, stress, r (288) = –.61, p < .001, and anxiety, r (288) = –.58, p < .001 among NPSC. Moreover, the correlation between levels of self-perceived stress coping and psychological distress was inversely proportional. Besides that, there was strong positive correlation between depression, stress, and anxiety. In this context, depression had a strong positive relationship with stress, r (288) = .72, p < .001, and anxiety, r (288) = .71, p < .001. Stress and anxiety were also found to be positively correlated, r (288) = .68, p < .001.

Table 2: Correlation Between NPSC and Depression, Anxiety and Stress



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3. Correlation Between Nurses' Professional Self Concept (NPSC) and Depression, Anxiety and Stress: Using Regression Test

Regression analysis was done to check for the direction and direct effect of NPSC on depression, Anxiety and Stress. More to further confirm the result of Pearson's R correlation test that show significant correlation between the NPSC and depression, anxiety and stress.

3.1. Nurses' Professional Self Concept (NPSC) and Depression

The findings exhibited a statistically significant, very strong and negative correlation, B=−0.450, SE=0.070, β=−0.523, t (288) =−6.250, p<.001. The 95% confidence interval of the unstandardized coefficient was between −0.620 and −0.280 indicating that the actual effect in the population is negative and very likely to be significant. Nurses possessing higher professional self-concept suffer from much less depression, as the strength of the standardized beta coefficient also indicates the important aspect of this relationship and the necessity to improve professional self-concept as a possible measure for diminishing depressive symptoms in the nursing profession.

Table 3: Relationship between Nurses' Professional Self Concept (NPSC) and Depression-Regression Analysis

Coefficients[a]							
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.575	.143		18.029	.000	2.295	2.855
	SPSC	-.450	.070	-.0523	-6.250	.000	-0.620	-0.280

a. Dependent Variable: Depression

3.2. Nurses' Professional Self Concept (NPSC) and Anxiety

A simple linear regression was performed to study the relation between nurses' professional self-concept (NPSC) and anxiety. The analysis yielded a statistically significant negative correlation with anxiety, evidenced by B=−0.457, SE=0.065, β=−0.512, t (288) =−7.031, p<.001. The 95% confidence interval of the unstandardized coefficient was from −0.584 to −0.330, thus, confirming the reliability and the magnitude of the effect. Based on the results, the authors assume that professional self-concept of nurses is negatively corelated to the degree of their anxiety. The moderate to strong negative standardized beta coefficient emphasizes the practical significance of this relationship even more, therefore, it is very crucial to support professional identity for the purpose of decreasing psychological discomfort among nurses.

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Table 4: Relationship between Nurses' Professional Self Concept (NPSC) and Anxiety-Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.272	.124		18.323	.000	1.980	2.565
	NPSC	-0.457	.065	-0.512	-7.031	.000	-0.584	-0.330

a. Dependent Variable: Anxiety

3.3. Nurses' Professional Self Concept (NPSC) and Stress

The statistical examination done by the linear regression analysis has come to the conclusion of a significant negative link between the perception nurses have about their profession and the stress experienced by them. The unstandardized coefficient (B = -0.368, $p < .001$) indicates that the stress score is reduced by 0.368 units for each unit increment in the NPSC, other factors being equal. The standardized coefficient (Beta = -0.446) points to a moderate to strong negative effect size. The 95% confidence interval for the unstandardized coefficient is from -0.509 to -0.227, which not only supports the statistical significance but also highlights the practical relevance of the association.

Table 5: Relationship between Nurses' Professional Self Concept (NPSC) and Stress-Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.440	.139		17.512	.000	2.168	2.712
	NPSC	-0.368	.072	-0.446	-5.111	.000	-0.509,	-0.227

a. Dependent Variable: Stress

DISCUSSION

This research has demonstrated that a more powerful professional self-image in nursing personnel is one of the major protective factors resulting in a reduction of depression, anxiety, and stress to very low levels. The results repeatedly point to the fact that if the nurses have a good view of their professional identity, their skills, and their worth, they will have a correspondingly better mental health. This association can be viewed in a very strong way through the theories of self-concept. Rogers' humanistic approach which states that the alignment of the actual self (who one is) and the ideal self (who one wants to be) is the key to mental health (Merry, 2002). For nurses, a strong professional self-concept indicates alignment between their personal identity and their ideal professional role, thereby reducing internal conflict and fostering mental well-being (Miao, Liu, Zhou, Zou, Song, Joanne W Y Chung, *et al.*, 2024). In the same way, the Professional Self-Concept Theory for Nursing advocates that an unambiguous professional identity consisting of quality attributes such as leadership,

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adaptability, and contentment creates a mental structure through which nurses can perceive difficult situations positively, thus, reducing anxiety and (Li, Liu, Huang and Zeng, 2025).

The study results are strongly supported by the literature. A systematic review by Saberi *et al.*, (2022) concluded that professional self-concept acts as a critical mediator between workplace stressors and psychological outcomes, with higher self-concept consistently predicting lower burnout and emotional exhaustion (Saberi *et al.*, 2022). Furthermore, a longitudinal study by Li, Liu, Huang, Zeng, *et al.*, (2025) found that nurses with a declining professional self-concept over time were at a significantly higher risk of developing depressive symptoms, suggesting a predictive, and potentially causal, relationship (Li, Liu, Huang, Zeng, *et al.*, 2025). These findings dovetail with the Conservation of Resources (COR) theory, which argues that individuals strive to retain and protect their valued resources (Egozi Farkash *et al.*, 2022). A positive professional self-concept is a key personal resource; when it is threatened or depleted by high-stress environments, psychological distress like anxiety and depression ensues as a consequence (Devi *et al.*, 2022).

Nonetheless, an evaluation of the study should include a debate on reciprocity and causality. On the one hand, this research and others suggest a professional self-concept as a predictor; on the other hand, the connection is most likely two-way and made worse by systemic problems. Long-term pressure, ethical conflicts, and traumatizing incidents that occur in healthcare can erode nurses' feelings of professional efficacy and job satisfaction directly (Hosseini *et al.*, 2021). Nurses, who often encounters moral dilemmas or works in a unit with inadequate staffing may feel incapable of catching up with others and thus, loses his/her professional self-concept. Therefore, moral-boosting measures are vital but they are not enough if they are used in isolation. Concentrating only on developing individual resilience without tackling the toxic organizational structures simultaneously that undermine both mental health and professional identity is a form of victim-blaming and is a strategy unlikely to produce lasting changes (Yuksel and Erzincanli, 2021).

Theoretically, the interventions should draw the major strengths of professional self-concept. A structured preceptorship and mentoring program that would reinforce professional values and identity could be one way of achieving this (Maqbali *et al.*, 2024). The forms of social cognitive theory, where learning through modeling, is the main component here, support this idea. That being said, organizations must maintain a continuous and authentic recognition of their employees, engage them in participatory governance, and provide training and development opportunities as their main ways of fostering this positive self-image. From the perspective of Roy's Adaptation Model, a nurse whose self-concept has been enhanced is better equipped to adapt and, therefore, will be more effective in responding to stimuli at the workplace (Marudhar and Josfeena, 2019). In the long run, putting money into cultivating a strong professional self-concept is not only a wellness initiative but also the effective and inevitable way of coming to terms with the future requirement of a resilient nursing workforce that is capable of delivering safe and high-quality patient care.

CONCLUSION

The stronger professional self-concept among nurses is one of the important protective factors that give rise to the situation where the levels of depression, anxiety, and stress are significantly lower. Psychological well-being cannot just be supported but also must be maintained through a set of targeted, integrated, and systematic programs working together to strengthen the nurses' professional self-concept. The professional self-concept can be fostered by adopting such measures as mentorship and preceptorship programs where the nurse trainers put forward the professional ethos and skills as a support for the trainees' internalization of the positive professional identity.

Future Research Recommendations

Future researches should involve a large and varied pool of participants drawn from different parts of Pakistan. It is also recommended that longitudinal studies or interventional studies be conducted to determine the causal links between the nurses' professional self-concept and their psychological well-

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being. Besides, future research may incorporate mediators, moderators, and control variables in the study of the relationship. In addition, qualitative research may be helpful in uncovering nurses' personal and organizational factors that affect their self-concept and mental health through providing a more in-depth understanding of the context.

Conflict of Interest: No
Authors Contribution:

Author	Contribution
Abdullah	*Conceptualization, Theoretical Framework, result validation, study design, and manuscript writing and formatting of the final document.*
Shukriya Saleem	*Supervision, methodology guidance, and critical revision of the manuscript.*
Komal Bakhtyar	*Data interpretation, literature review, and manuscript editing.*
Nazia Qureshi	*Statistical analysis, result validation, and formatting of the final document.*
Muhammad Abdullah	*Data Collection, Data entry, Proofreading, referencing.*
Tahir Khan	*Data Collection, Data entry*
Ahmad Ali	

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Ethical Statement: The study is in compliance with research ethics.

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