

PSYCHOLOGICAL CAPITAL AMONG REGISTERED NURSES WORKING
IN PUBLIC SECTOR HOSPITALS: A CROSS-SECTIONAL STUDY IN
ABBOTTABAD

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Abstract

Introduction: Background: Psychological capital (PsyCap) comprising hope, self-efficacy, resilience, and optimism have emerged as a crucial positive psychological resource that enhances employees' well-being and work performance. In the nursing profession, particularly within public sector hospitals, high job demands, workload, and emotional stress may significantly influence nurses' psychological capital. Limited empirical evidence is available regarding the level of psychological capital among registered nurses in Pakistan.

Objective: To assess the level of psychological capital and its associated dimensions among registered nurses working in public sector hospitals of Abbottabad.

Methodology: This was a cross-sectional study carried out in district Abbottabad. Data were collected from 200 nurses employed in three government hospitals of Abbottabad; District Head Quarter Hospital, Women and Children Hospital and Ayub Teaching Hospital Abbottabad. All these participants were employed based on proportionate sampling technique. The study was approved from the ethical review board of Khyber medical university Peshawar. Data collection permission was granted from the directors of concern hospitals. Data were collected using an adopted questionnaire; Psychological Capital Questionnaire. Data were analyzed using SPSS version 23.

Results: A total of 200 participants were included in the study. 46.5% of the participants were from the age group of 30 to 40 years old, 50.5% of the participants were having working experience more than 10 years.

65.5% of the participants were female and 86.5% of the participants were qualified to BSN/Post RN level. The majority (65%) of the participants were reported High psychological capital, followed by moderate psychological capital (22%) and low psychological capital (13%). **Conclusion:** The findings indicate that the majority of nurses had high psychological capital, while fewer reported moderate or low levels. Psychological capital was not significantly associated with age, gender, education, or working experience.

INTRODUCTION

Nursing profession has experienced certain shifts over the past few years because of the growing concern for the complexity of the health care organizations and the elevation of stakes for delivering quality patient care (1). Nurses are particular as they are the biggest strength of the health care workforce all over the world according to World Health Organization (WHO) (2). Nurses are regarded as an invaluable asset for healthcare facilities. Nurses are considered the backbone of health care sector (3).

In the fast-paced and demanding environment of healthcare, where the well-being of individuals hangs delicately in the balance, the significance of healthcare professionals cannot be overstated (4). Among these professionals, registered nurses stand at the forefront, tirelessly delivering care, compassion, and expertise to those in need (5). Within the intricate network of healthcare dynamics, the performance and commitment of registered nurses are pivotal factors in ensuring optimal patient outcomes and organizational success (6).

PsyCap is an umbrella construct within health care sector that has attracted considerable attention in relation to factors that shape and predict employee attitudes, behaviors and organizational outcomes (7). PsyCap consists of four dimensions: Focusing on self-efficacy, hope, resilience, optimism all those constructs that foster an individual positive psychological state has been identified (8). Research study has revealed that PsyCap boosts up personal and work-related outcomes that raises satisfaction to work, and reduces staff's desire to leave an organization (9). Regarding the nursing that incorporates stress, burnout, and workload pressure as recognized issues, the necessity of the application of positive psychological assets, including PsyCap, is emphasized (10).

In recent years, research interest has surged in exploring the role of psychological capital (PsyCap) in the workplace, recognizing its potential as a valuable resource for enhancing individual and organizational performance (11). PsyCap, a construct encompassing the positive psychological resources of hope, efficacy, resilience, and optimism, has been increasingly acknowledged for its profound influence on various aspects of work life, including job satisfaction, performance, and commitment (12). PsyCap is more common in nurses as compared to other health care professionals. The findings of one study reported that 80.1% of the nurses are experiencing moderate psychological capital (7). Psychological capital is a vital personal resource that influences nurses' mental well-being, resilience, and job performance. Registered nurses working in public sector hospitals are exposed to high workload, stress, and emotional demands, which may affect their psychological capital. Limited evidence is available regarding psychological capital among nurses in Abbottabad. Understanding its level can help guide targeted interventions to improve nurses' well-being and quality of patient care.

Methodology:

This cross sectional research study was carried out to determine the psychological capital among registered nurses. The research was conducted across three large government hospitals of Abbottabad which include; District Headquarter Hospital (DHQ), Women and Children Hospital (WCH), and Ayub Teaching Hospital (ATH), those are serving a high population and are the main healthcare providers in the district. The time period of the study was six months. All registered nurses based in hospitals of Abbottabad in the public sector made the study population. The Raosoft sample size calculator was used in the

calculation of the sample size based on a population of 400 nurses, a 95% interval, and a margin of error of 5 percent, a necessary sample size of 197. In order to achieve more representation, 200 participants were obtained through a proportionate sampling method. The study included registered nurses who had at least one year of work experience and excluded long leave registered nurses, nurses who were absent during data collection, and those who refused to participate.

An adopted standardized questionnaire was used to gather the data such as the 24-item Psychological Capital Questionnaire (PCQ-24) that has shown high internal consistency with a Cronbach’s alpha of 0.92. The answers were measured as strongly disagree to strongly agree on a five-point Likert scale and psychological capital scores were measured as low (below 50 percent), moderate (between 50 and 75 percent), and high (more than 75 percent). Ethical approval was sought by the Graduate Committee (GC), Advanced Studies and Research Board (ASRB)

and Ethical Review Board (ERB) as well as permission was sought by the hospital administration. The objectives of the study were explained to the participants, who were guaranteed confidentiality and anonymity, and data were gathered in a confidential place.

Results:

Socio-demographic profile of the participants:

The participants were asked regarding their age, gender, qualification and other socio-demographic profile. The majority (46.5%) of the participants was from the age group of 30 to 40 years old, 33% of the participants were from the age group 25 to 35 years and 20.5% of the participants were aging more than 40 years. Half (50.5%) of the participants were having working experience more than 10 years. 65.5% of the participants were female and 86.5% of the participants were qualified to BSN/Post RN level (Table 1).

Table 1: Socio-demographic profile of the participants, n=200

	Frequency	Percent	Valid Percent	Cumulative Percent
Age of the Participants				
25 to 30 Years	66	33.0	33.0	33.0
31 to 40 Years	93	46.5	46.5	79.5
More than 40	41	20.5	20.5	100.0
Total	200	100.0	100.0	
Experience of the Participants				
Less than 5 Years	11	5.5	5.5	5.5
5 to 10 Years	88	44.0	44.0	49.5
More than 10 Years	101	50.5	50.5	100.0
Total	200	100.0	100.0	
Gender of the Participants				
Female	131	65.5	65.5	65.5
Male	69	34.5	34.5	100.0
Total	200	100.0	100.0	
Education Status of the Participants				
Diploma Nursing	27	13.5	13.5	13.5
BSN or Post RN	173	86.5	86.5	100.0
Total	200	100.0	100.0	

Psychological Capital:

The psychological of the participants were assessed using psychological capital-24 questionnaire. The questionnaire is divided into different sections such as hope, resilience and optimism.

Hope:

Table 2 is consisting frequencies and percentages of items which reflect hope in terms of Psychological capital among the nurses.

Table 2: Hope in terms of psychological capital among participants, n=200

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
When I find myself under pressure, f	0	2	23	100	75	
I think how to get out of this predicament/ difficulty. %	0.0%	1.0%	11.5%	50.0%	37.5%	
I have a strong will to achieve my goals. f	0	0	6	56	138	
%	0.0%	0.0%	3.0%	28.0%	69.0%	
I have several alternatives to resolve any problem I may face. f	0	3	19	118	60	
%	0.0%	1.5%	9.5%	59.0%	30.0%	
I feel that I have achieved great success in my career. f	4	3	11	97	85	
%	2.0%	1.5%	5.5%	48.5%	42.5%	
I think of more than one way to achieve my goals. f	0	14	11	93	82	
%	0.0%	7.0%	5.5%	46.5%	41.0%	
I have achieved most of goals I have perused/ followed. f	0	2	23	109	66	
%	0.0%	1.0%	11.5%	54.5%	33.0%	

Self-efficacy:

Table 3 is consisting frequencies and percentages of items which reflect self-efficacy in terms of Psychological capital among the nurses.

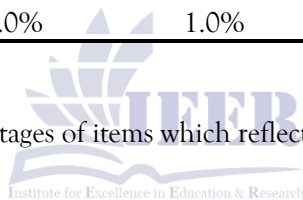


Table 3: Self-efficacy in terms of psychological capital among participants, n=200

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I enjoy a great deal of self-confidence. f	0	3	7	68	122	
%	0.0%	1.5%	3.5%	34.0%	61.0%	
I'm in the best mood when I'm actually in a situation of challenge. f	0	7	33	74	86	
%	0.0%	3.5%	16.5%	37.0%	43.0%	
I face many problems and I can solve them. f	0	4	13	72	111	
%	0.0%	2.0%	6.5%	36.0%	55.5%	
I prefer self-reliance/confidence to find a solution when things go wrong. f	4	11	19	114	52	
%	2.0%	5.5%	9.5%	57.0%	26.0%	
I think that i have a very good chance to realize my goals in life. f	0	1	24	97	78	
%	0.0%	0.5%	12.0%	48.5%	39.0%	
I finish my work on time and do not wait until the last minute. f	0	6	14	77	103	
%	0.0%	3.0%	7.0%	38.5%	51.5%	

Resilience:

Table 4 is consisting frequencies and percentages of items which reflect resilience in terms of Psychological capital among the nurses.

Table 4: Resilience in terms of psychological capital among participants, n=200

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I restore my normal mood quickly after unpleasant events.	f 1 % 0.5%	23 11.5%	31 15.5%	82 41.0%	63 31.5%	
I enjoy dealing with new and unusual events.	f 0 % 0.0%	3 1.5%	35 17.5%	96 48.0%	66 33.0%	
I usually succeed to form positive impression about others.	f 3 % 1.5%	1 0.5%	31 15.5%	80 40.0%	85 42.5%	
I prefer following more than one route to achieve goals.	f 1 % 0.5%	15 7.5%	34 17.0%	94 47.0%	56 28.0%	
I prefer work that is both new and challenging.	f 0 % 0.0%	0 0.0%	12 6.0%	96 48.0%	92 46.0%	
I overcome feeling of anger that I may have toward a particular person.	f 0 % 0.0%	20 10.0%	50 25.0%	87 43.5%	43 21.5%	

Optimism:

Table 5 is consisting frequencies and percentages of items which reflect optimism in terms of Psychological capital among the nurses.

Table 5: Optimism in terms of psychological capital among participants, n=200

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
When I am not sure of something, I usually expect the best.	f 0 % 0.0%	8 4.0%	30 15.0%	105 52.5%	57 28.5%	
I can easily feel relaxed.	f 7 % 3.5%	29 14.5%	33 16.5%	85 42.5%	46 23.0%	
When I feel indignant/ annoyed on the performance of the work, I delay it for another time.	f 8 % 4.0%	45 22.5%	32 16.0%	96 48.0%	19 9.5%	
I am always optimistic about my future.	f 0 % 0.0%	0 0.0%	32 16.0%	75 37.5%	93 46.5%	
I expect events to ensure continuity in achieving my goals.	f 3 % 1.5%	14 7.0%	23 11.5%	97 48.5%	63 31.5%	
I expect pleasant events, rather than unpleasant ones.	f 0 % 0.0%	9 4.5%	23 11.5%	93 46.5%	75 37.5%	

Overall Psychological Capital:

Overall psychological capital of the nurses was measured. The majority (65%) of the participants

were reported High psychological capital, followed by moderate psychological capital (22%) and low psychological capital (13%) (Figure 1).

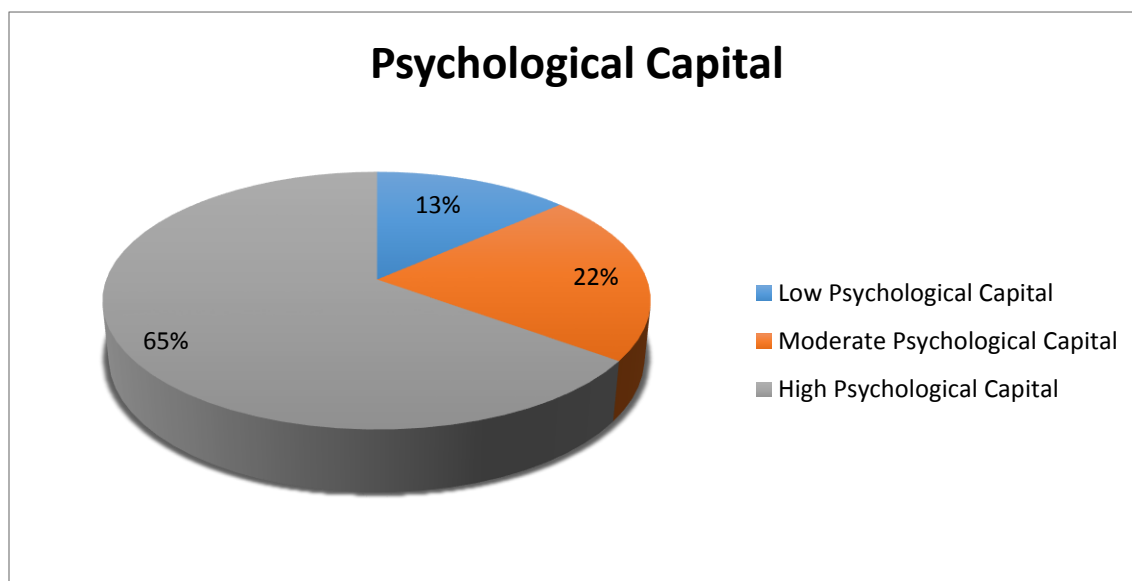


Figure 1: Pie-Chart depicting psychological capital of the participants

Association between psychological Capitals with socio-demographic profile:

Association of psychological capital was assessed with socio-demographic profile of the nurses such as age, gender, education and working experience. There was

no significant association of psychological capital found with age (P=0.561), gender (P=0.080), education (P=0.913) and working experience (P=0.383) (Table 6).

Table 6: Association of Psychological Capital with socio-demographic profile of nurses, n=200

Crosstab		Psychological Capital			P-Value
		Low Psy-Cap	Moderate Psy-Cap	High Psy-Cap	
Gender	Female	21	32	78	P=0.080
		10.5%	16.0%	39.0%	
	Male	6	11	52	
		3.0%	5.5%	26.0%	34.5%
Total		27	43	130	200
		13.5%	21.5%	65.0%	100.0%
Education	Diploma Nursing	4	5	18	P=0.913
		2.0%	2.5%	9.0%	
	Bsn or Post Rn	23	38	112	
		11.5%	19.0%	56.0%	86.5%
Total		27	43	130	200
		13.5%	21.5%	65.0%	100.0%
Age	25 to 30 Years	6	14	46	P=0.561
		3.0%	7.0%	23.0%	
	31 to 40 Years	13	22	58	
		6.5%	11.0%	29.0%	
	More than 40	8	7	26	41

		4.0%	3.5%	13.0%	20.5%	
Total		27	43	130	200	
		13.5%	21.5%	65.0%	100.0%	
Experience	Less than 5 Years	0	1	10	11	P=0.383
		0.0%	0.5%	5.0%	5.5%	
	5 to 10 Years	11	19	58	88	
	More than 10 Years	16	23	62	101	
		8.0%	11.5%	31.0%	50.5%	
Total		27	43	130	200	
		13.5%	21.5%	65.0%	100.0%	

Discussion:

In this study the level of psychological capital of the nurses was evaluated, where 65% of responders had high levels of PC, 22% moderate and 13% low levels of Psychological capital. Supporting the current study findings, a study reported that majority of participants scored high psychological capital, meaning that a number of nurses who practice in various organizations have the psychological capacity to confront stressors and demands that come with the job. Supporting the findings of the current study, a study reported high Psychological capital among nurses (13).

Another similar study also presented parallel findings as the current study and reported high psychological capital among nurses. The study reported overall high psychological capital among 75% nurses (14). In contrast, another study reported different findings and stated that 35% of the nurses had high psychological capital (15). Research studies explored the concept of positive interventions with the intention of building psychological capital at the workplace and found out that the use of mindfulness training, positive psychology exercise and comprehensive support programs in the health care departments can be useful (16).

The current study also analyzed the relationship between psychological capital and the chosen socio-demographic attributes of registered nurses such as age, sex, level of education, and work experience. The results proved that there was no statistically significant correlation between psychological capital and any of those factors. Such findings suggest that psychological capital could be a rather stable and universal psychological source that is less determined by fundamental demographic variables and more

determined by organizational and psychosocial workplace conditions.

The lack of a meaningful relationship between age and psychological capital is in line with that of study who defined psychological capital as a construct that could be developed by applying specific intervention irrespective of age (17). Likewise, another systematic review also observed that psychological capital in nurses did not vary significantly with age, implying that individual psychological assets are not only affected by the support at work and leadership styles but also by age (18). This explains the need of organizational strategies in the development of psychological capital at all ages.

Psychological capital had no significant relation with gender in the current study, which is in line with the results of a study that was carried out on nurses in Egypt that found no significant differences in PsyCap scores across genders in general (19). Past studies indicate that male and female nurses might have varied workplace stress, but their ability to have hope, resilience, optimism and self-efficacy is similar to the same when they are subjected to the same working environment (20). This helps to indicate that gender specificity of psychological capital does not exist.

In this study, the level of education was not significantly related to psychological capital. This observation is confirmed by the body of research that shows that increase in academic qualifications does not inevitably increase psychological resources (21). Intrinsic motivation, coping mechanisms, and perceived organizational support are more related with psychological capital instead of formal education. In the same way, the non-correlation of the working experience and psychological capital indicates that a long-term experience of work stress and workload can

counteract possible increases in resilience and self-efficacy due to work experience (22).

Conclusion:

The study concludes that most registered nurses demonstrated high psychological capital, reflecting strong resilience, optimism, hope, and self-efficacy. A smaller proportion of nurses reported moderate and low psychological capital, indicating variability in psychological resources. Psychological capital showed no significant association with age, gender, education, or working experience. This suggests that psychological capital is a universal and developable construct rather than being influenced by demographic factors. Enhancing psychological capital through organizational support and targeted interventions may improve nurses' well-being and work outcomes.

REFERENCES

- Lal MM. The Professional Nurse: Four Decades of Immense Change. *J Nurs Adm.* 2022 Jan;52(1):4-5.
- Organization WH. Global strategic directions for nursing and midwifery 2021-2025. World Health Organization; 2021.
- Ferreira SRS, Périco LAD, Dias VREG. The complexity of the work of nurses in Primary Health Care. *Rev Bras Enferm.* 2018;71(8):704-9.
- Broetje S, Jenny GJ, Bauer GF. The key job demands and resources of nursing staff: An integrative review of reviews. *Front Psychol.* 2020;11(9):84-98.
- Recio-Saucedo A, Dall'Ora C, Maruotti A, Ball J, Briggs J, Meredith P, et al. What impact does nursing care left undone have on patient outcomes? Review of the literature. *J Clin Nurs.* 2018;27(11-12):2248-59.
- Abdullah MI, Huang D, Sarfraz M, Ivascu L, Riaz A. Effects of internal service quality on nurses' job satisfaction, commitment and performance: Mediating role of employee well-being. *Nurs Open.* 2021;8(2):607-19.
- Sobhy Mahmoud A, Goda El Sayed S, Atiya Abu Saleh Gabal S, Mohamed Wahba N. Psychological Capital and Compassion Fatigue Among Nurses Working in Port Said Hospitals. *Port Said Sci J Nurs.* 2023;10(2):320-49.
- Demirbaş E, Özek H. How Internal Customers' Job Tenure Affects Four Dimensions of PSYCAP? *Yaşar Üniversitesi E-Dergisi.* 2020;15:316-28.
- Vilarino del Castillo D, Lopez-Zafra E. Antecedents of psychological capital at work: a systematic review of moderator-mediator effects and a new integrative proposal. *Eur Manag Rev.* 2022;19(1):154-69.
- Liu Y, Aunguroch Y, Gunawan J, Zeng D. Job stress, psychological capital, perceived social support, and occupational burnout among hospital nurses. *J Nurs Scholarsh.* 2021;53(4):511-8.
- Kim KJ, Yoo MS. The influence of psychological capital and work engagement on intention to remain of new graduate nurses. *JONA J Nurs Adm.* 2018;48(9):459-65.
- Salanova M, Ortega-Maldonado A. Psychological capital development in organizations: An integrative review of evidence-based intervention programs. *Posit Psychol Interv Des Protoc multi-cultural Context.* 2019;3(7):81-102.
- Sun T, Zhao XW, Yang L Bin, Fan LH. The impact of psychological capital on job embeddedness and job performance among nurses: a structural equation approach. *J Adv Nurs.* 2012;68(1):69-79.
- Kotb AHA, Shazly MM, Mostafa HAA. Psychological capital educational program and its effect on nurse interns' innovative behavior. *BMC Nurs* [Internet]. 2024;23(1):544. Available from: <https://doi.org/10.1186/s12912-024-02192-5>
- Boamah S, Laschinger H. Engaging new nurses: the role of psychological capital and workplace empowerment. *J Res Nurs* [Internet]. 2019;20(4):265-77. Available from: <https://doi.org/10.1177/1744987114527302>

16. Yan D, Wen F, Li X, Zhang Y. The relationship between psychological capital and innovation behaviour in Chinese nurses. *J Nurs Manag.* 2020;28(3):471-9.
17. Luthans F, Youssef-Morgan CM. Psychological capital: An evidence-based positive approach. *Annu Rev Organ Psychol Organ Behav.* 2017;4(1):339-66.
18. Yuan Z, Zhang X, Wang F, Jin M, Teng M, He H, et al. Levels of psychological capital among nurses: A systematic review and meta-analysis. *Int Nurs Rev.* 2023 Mar;70(1):89-96.
19. El-Ashry AM, Khedr MA, El-Sayed MM, Abdelhay IS, Zeid MAGA, Abdo BME. Linking psychological capital to job embeddedness among nurses: evidence from Egyptian public healthcare setting. *BMC Nurs* [Internet]. 2025;24(1):917. Available from: <https://doi.org/10.1186/s12912-025-03547-2>
20. Avey JB, Reichard RJ, Luthans F, Mhatre KH. Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Hum Resour Dev Q.* 2011;22(2):127-52.
21. Guo YF, Cross WM, Lam L, Plummer V, Wang XX, Wang SS. Association between psychological capital and spiritual care competencies of clinical nurses: A multicentre cross-sectional study. *J Nurs Manag.* 2021 Sep;29(6):1713-22.
22. Newman A, Ucbasaran D, Zhu FEI, Hirst G. Psychological capital: A review and synthesis. *J Organ Behav.* 2014;35(S1):S120-38.

