DOI: https://doi.org/10.53350/pjmhs2023176145

ORIGINAL ARTICLE

Assessment of Perceived Health Competencies among Nursing Students and its Correlation with Self-Esteem - A Multi Institutional Study

MUSARAT NAZIR[1], SAEEDULLAH[2], MUHAMMAD ILYAS[3], HAYAT ALI[4], SARDAR ALI[5], AMIR SULTAN[6]
[1]*Nursing Instructor, Govt College of Nursing Hayatabad Medical Complex Peshawar*
[2]*Registered Nursing Officer, Mian Gul Abdul Haqjehanzeb Kidney Hospital, Manglor Swat.*
[3]*Assistant Professor, Iqra National University, Swat Campus, Khyber Pukhtankhwa Pakistan*
[4]*Registered Nursing Officer, THQ Hospital Kabal: Swat Khyber Pukhtankhwa Pakistan*
[5]*Assistant Professor, Institute of Nursing Sciences, Khyber Medical University Peshawar*
[6]*Principal / Assistant professor, Tasleem College of nursing swat, KPK*
Correspondence to Amir Sultan, Email: Amirsultan204@gmail.com / nursingwithamir@gmail.com

ABSTRACT

Background: Perceived health competency is a measure that predicts the behavior and outcome of individuals and enhances the self-confidence level of health care providers, while self-esteem is the skills and emotions that show the individual how to respect and not underestimate themselves.
Aim: To determine the prevalence of perceived health competencies among nursing students and to investigate its relationship with self-esteem.
Method: The study was conducted in the ten nursing institutes of Khyber Pukhtankhwa from December 2022 to February 2023. The design was cross-sectional analytical having sample size of 358 using sample random sampling method. The instruments used to assess perceived health competency were the perceived health competence scale (PHC) and the Rosenberg self-esteem questionnaire. Pearson correlation was used for association of self-esteem and perceived heath competencies.
Results: Among the participants, the majority of the students were male (58.1%) compared to female students (41.9%). The level of perceived health competencies among majority (72%) nursing students was higher (72%). The level of self-esteem among majority (78%) of the participants was average. Furthermore, the findings revealed that health competency (behavior) were strongly associated with self-esteem (r = 0.089), while outcome was moderately correlated with self-esteem (r = 0.039).
Conclusion: Nursing students health competencies (behavior) were higher among nursing students, which are strongly correlated with self-esteem, which will promote health-promoting behaviors among nurses. Furthermore, postgraduate students outclass other students in self-esteem and health competencies.
Practical implication: Nursing students with low perceived health competence may be at risk of low self-esteem. Low self-esteem affects the health-promoting behaviors of students, which will affect their academic and clinical competencies and, in the long term, affect the quality of care and patient outcomes.
Keywords: Self-esteem, health education, health behaviors, perceived health competencies, health promotion, nursing students

INTRODUCTION

Both theoretical studies and practical training are part of nursing programs. At the beginning of the programme, students attend theoretical studies, and they are gradually introduced to the clinical setting. In the nursing education program, clinical education is considered an essential and integral component [1]. As academic learning plays a vital role in any education program, similarly, clinical practice is the heart of nursing and provides a framework that is critical for the advancement of the health care system[2]. In the 21st century, nursing students face several challenges, and one of them is to enter a nursing programme, then transition from an academic environment into a clinical environment and face patients and implement practical skills[3]. During their training, nursing students are required to incorporate professionalism's characteristics into their everyday practice[4]. In Pakistan, nursing education is regulated by the Pakistan Nursing Council, which is the sole body that regulates and supervises nursing education in the provinces, so institutes require its registration for the announcement of admission to a nursing program and issue a practice license, which is required for clinical practice.

Perceived health competencies are the result of individual confidence, and similar to self-efficacy, the degree to which a person believes they are capable of efficiently managing their health behaviors and health outcomes is known as their perceived health competencies. Self-efficacy shows that, due to the relationship it builds between behavior and outcome, it is a valuable psychological construct. The application of both self-efficacy and perceived health competencies is different because perceived health competency applies to individual behavior related to health while self-efficacy applies to specific behaviors[5].

Received on 05-03-2023
Accepted on 15-05-2023

The perceived health competencies not only apply to the behavior of an individual but also enhance the self-confidence level of health care provider and social support [6]. Furthermore, competencies refer to the ability to perform a particular task in a manner that results in desirable outcomes and is based on particular knowledge, attitude, and skills[7]. It is a global concern about skill-based professions especially students' skills and competencies irrespective of profession. In the modern era, the structure of the healthcare environment is dynamic that required well-being, and expert and skillful health professionals to deal with this changing environment. The lack of competent health professionals is a challenge for healthcare industry; therefore they hire new graduates to fill the shortage of skillful nurses[8].

The combination of skills and emotional status that describe how a person thinks or regards them is known as self-esteem [9]. The meaning of self-esteem for nursing students is; that they will respect themselves and shouldn't underestimate themselves[10]. Students with low self-esteem are associated with a negative perception of their self while higher self-esteem students have a good evaluation and positivity towards themselves, therefore it is considered an evaluation of self-knowledge that could be positive or negative[11]. The regulatory bodies and governance vary from country to country, therefore for effective practice in nursing, skills knowledge and judgment play a pivotal role[12].

Perceived health competencies have an impact on behavior and outcome, while self-esteem enhances the reflection of students towards themselves, which will improve their health and, in the long term, improve the quality of practice and patient outcomes. So to deal with the academic and clinical performance of nursing students and lady health visitor students, it is important to know their level of self-esteem and their perceived health competencies. Few studies have focused on the relationship between perceived health competencies and self-esteem.

The objectives of the study were:

- to explore the perceived health competencies and self-esteem among students of nursing and lady health visitors
- To identify the level of perceived health competencies and self-esteem among the different programs of nursing and lady health visitor students.
- To identify the association between perceived health competencies and self-esteem.

METHODOLOGY

The study was conducted in the 10 public and private sector institutes of Khyber Pakhtunkhwa that were randomly selected having both programs of nursing and lady health visitors from December 2022 to February 2023. In Khyber Pakhtunkhwa approximately 92 nursing institutes are affiliated with Khyber medical university, for admission and functioning the nursing institutes have required to affiliate with the medical university, and Pakistan nursing council for academic activities while registration with the higher education regulatory authority for the degree program and registered with health foundation for clinical practice is mandatory. The design of the study was descriptive cross-sectional.

Participants: The participants of the study were nursing students and lady health visitors enrolled in any 10 selected nursing institutes of Khyber Pakhtunkhwa. The population was calculated using a 95% confidence level, 5% margin of error and 80% prevalence that was 358.

The data were collected by simple random sampling the inclusion criteria for the study were those students who are currently enrolled in the nursing or lady health visitor program, and willing to be the participants of the study voluntarily. Students who are on leaves or on clinical duties and not willing to be voluntary participants of the study were excluded from the study.

Data collection and Research Instrument: The data collection and research process was divided into three sections:

The first section contains sociodemographic data (such as sex, age, program, college, and living status).

The second section contains a questionnaire of perceived health competencies (PHC) that was designed by Smith, which contains two dimensions, having an 8-item questionnaire having 5 point Likert scale from 1-strongly disagree to 5 strongly agree was used. The questionnaire Chronbach alpha was 0.82 to 0.90[5].

The third section contains the questionnaire *Rosenberg Self-Esteem Scale* having 10 items that contain 5 positive feelings and 5 negative feelings, with 1 to 4 Likert scale response, the validity, and reliability of the questionnaire is already checked, and has a chronbach alpha of 0.81[13]. The responses to Items 2, 5, 6, 8, and 9 were reversed as a part of the requirements of the questionnaire. The scale ranges from 0-30. Scores between 15 and 25 are within the normal range; scores below 15 suggest low self-esteem.

The entire questionnaire with consent was printed to present and explain to each student and after permission to fill checklists in the presence of their faculty member and primary investigator for guidance.

Statistical Analysis: The frequency and percentages for categorical variables and for continuous variables mean and standard deviation was calculated as descriptive statistics. Pearson correlation was applied to identify the association between self-esteem and perceived health competencies. IBM SPSS 22 was used for statistical analysis.

Ethical Consideration: The study was approved by the institutional review board after the examination of the study project. Prior permissions were granted from each institute for the permission of data collection. Informed consent from each student was sign that contains that their information will be kept confidential and they have the right to skip the study anytime.

RESULTS

In total participants (358) majority of the participants were male (58.1%) compared to female participants (41.9%). Students aged group 18-22 years were high in numbers (61.7%), followed by aged group 23-28 years (29.6%) and age 29 and above (8.7%). The students of 4 years BSN were in majority (70.6%), followed by lady health visitors (LHV) (16.8%), while the number of 2 years Post-Rn was (7.5%) and MSN students were only 5% (Table 1).

Table 1: Demographic data of the participants (n=356)

Characteristics	Categories	Frequency	%age
Gender	Male	208	58.1%
	Female	88	41.9%
Age	18-22	221	61.7%
	23-28	106	29. %
	29 and above	31	8.7%
Status	Private	322	89.9%
	Government	36	10.1%
Program	BSN	253	70.7%
	Post-Rn	27	7.5%
	MSN	18	5.0%
	LHV	60	16.8%
Living in	Village	288	80.4%
	City	70	19.6%

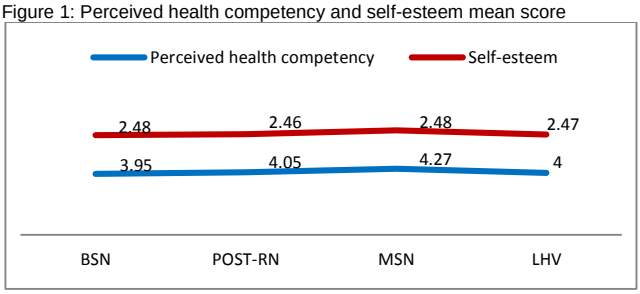
Perceived health competencies of the participants: Table 2 shows that the perceived health competencies are divided into behavior and outcome. The first four questions asked about behaviors while the remaining 4 questions are related to outcome. The 8 questions also contain 4 positive questions (i.e. 1, 3, 4, 5, 7 and 10) and 4 negative questions (2, 5, 6, 8, and 9). The responses of negative questions are reverted for appropriate results (such as 4 into 1, 3 into 2, 2 into 3 and 1 into 4). The total mean score of the behavior was (4.4±1.3), while the total mean score of outcome was (3.53±1.1), and the total mean score of the perceived health competencies were (3.98±1.3) (Table 2).

Self-Esteem score of the participants: In the total 10 questions the higher mean score (3.95±0.98) of the participants were "I feel that I have good number of qualities", followed by another response "I am able to do those thing that are performed by other peoples" having mean score of (3.39±0.61). The overall mean score of the self-esteem among all the students were (2.47±0.97) (Table 2).

Table 2: Perceived health competences and self-esteem score of the participants

	Behavior	Outcome	Overall Mean ± SD
Perceived Health behaviors	4.4 ± 1.3	3.53 ± 1.1	3.98 ± 1.3
Self-esteem			2.47 ± 0.97

Figure 1: Perceived health competency and self-esteem mean score



Correlation of perceived health competencies and self-esteem

Overall Perceived health competencies and Self-esteem: The 2 years MSN students perceived health competency mean score was the highest (4.27±1.0), followed by the mean score of 2 years Post-RN BSN (4.05±1.0), while the Lady health visitors mean

score were (4.0±1.1), and in the last the mean score of 4 years BSN were (3.95±1.3). In self-esteem the mean score of 2 years MSN and 4 years BSN were higher and equal of (2.48±0.99), while the lady health visitors means score was (2.47±0.95), and 2 years Post-RN was 2.46±0.87) (Figure 1).

Table 3 reveals that perceived behavior of health competency is strong positive correlation with self-esteem, while perceived outcome have moderate correlation with self-esteem.

Table 3: Correlation of health competencies and self-esteem

	1	*2*	*3*
1: Self-esteem		.089	.039
2: Perceived behavior			.464**
3: Perceived Outcome			-
**. Correlation is significant at the 0.01 level (2-tailed).			

DISCUSSION

The study aimed to evaluate the perceived health competency of nursing students and its correlation with self-esteem. In the current study, the number of male participants was higher (58.1%) compared to female participants (41.9%). The findings are in line with a study that reveals that the number of male participants were in majority (58%)[14]. While the results are different from a study that shows that the female student's participants (71.8%) were in majority compared to male participants (28.2%)[15], similarly another study also contradicted our findings that include the maximum number of female participants (93.5%)[16].

The overall mean score of self-esteem was 24.6±1.6, which is within the normal range regarding the interpretation of the scale and indicates that the participant's self-esteem is average, while another study shows that their overall self-esteem score was average (19.15±5.4) that support our study findings[17]. In line with our results, another study also reveals that the majority of their participant's self-esteem score was average (91.9%)[11]. Similarly, a study conducted in Nepal also shows that 97% of their nursing student's self-esteem was average[18]. On the other side, our findings were different from a study that shows that the overall mean score was 27.67±3.41 which indicates higher self-esteem among the study participant's findings[19].

The individual mean score of the current study was 2.47±0.97, while among the 10 items "I think that I have many good qualities" that was 3.95 ± 0.98, and the lowest mean score was the item "I wish I could have more respect for myself" that was (2.05 ± 0.69). Our findings of the lowest score were similar to a study that the overall item mean score was 2.77±0.34 and the item that scored the lowest was "I want to win more respect for myself" (1.83±0.54)[19].

Based on the qualification the current study shows that the individual mean score of the Master of Science in Nursing (MSN) and 4 years BSN score was the same and highest (2.48±0.87) and (2.48±0.9) compared to other programs. The findings are different from a study that shows that the self-esteem score of a 3 years BN (bachelor of nursing) program is highest self-esteem is 100% compared to 4 year BSN (Bachelor of Science in Nursing) program (95.3%)[18]. Higher esteem is the predictor of higher academic achievement and performance.

Perceived health competency predicts behavior and outcome because it is the scale of management for self-efficacy. In the current study, the mean score of perceived health competencies was 3.98 ± 1.3. In perceived behavior the higher mean score (4.50±1.3) of the item was "I can do things for my health as well as most other people" while in the outcome "I find efforts to change things I don't like about my health are ineffective" was the item with a maximum mean score of (3.73 ± 1.1), that shows that majority of the students perceived health competencies was higher and they were also concern regarding the health and were involve with health promoting and build a positive image of their selves, so the maximum level of perceived health competencies leads to self-confidence that became a part practice to promote health behaviors. The findings are in line with a study that shows that their perceived health competencies were higher that were associated with engagement in health activities[15]. The findings are also supported by other studies that explain that in the domain of health behaviors, they are associated with self-efficacy and have positive results[20,21].

Furthermore, many other studies draw evidence that participants who improve their perceived health competencies will not only promote their health but also improve health-promoting behaviors among health workers and patients[15].

Perceived health competency forecast behavior and outcome, so the current study reveals that behavior is strongly correlated with self-esteem (r=0.089), so improvement in health behavior with increase the level of self-esteem among nursing students, while the perceived health outcome has a moderate correlation with self-esteem (r=0.039), that elaborate that changes in health outcome will affect the self-esteem of the participants. A study conducted that Tianjin; China reveals that self-esteem is correlated with the subjective well-being of intensive care unit nurses which will help to build the perceived health behaviors of nurses. The study further elaborates that the self-esteem of ICU nurses is lower than the domestic average as they face critically ill patients and deaths[19]. Furthermore, the findings of another study show that psychological distress is reduced as a result of an increase in self-esteem due to a small direct effect (β= −0.11), while the level of job satisfaction and social support increase as a result of direct effect (β= −0.22) as it is stronger than the indirect effect, therefore it leads to increase the health competencies of nurses[16]. The findings of our study are opposed by another study that shows that novice nurses' competencies have a negative correlation with self-esteem (r= -0.417), so when the nursing competencies will increase, will decrease the level of self-esteem[17]. A study conducted in Pakistan shows that self-esteem is not associated with the academic performance of nursing students which elaborate that study performance increase or decrease without the involvement of self-esteem[11].

CONCLUSION

The current study reveals that perceived health competency behavior is positively correlated with self-esteem, so students who are concerned about their health and involved in healthy activities will increase their self-esteem. While the outcome competency is moderately correlated with self-esteem. The level of perceived health competencies of nursing students enrolled in the nursing institutes in Khyber Pakhtunkhwa was higher and they were concerned regarding their health to involve in health-promoting activities. The level of perceived competencies among a different study group of nurses, the students of Master of Science in Nursing score was higher due to their academic experience and clinical exposure. The study also discloses that the level of self-esteem among the nursing students was within the normal range, but the self-esteem of 4 years BSN and Master of nursing was increased due to strong academic background.

Limitation: The study design is correlational descriptive so over time the strong positive relationship could be changed or a moderate correlation could change into a negative or positive one that could be analyzed through longitudinal study design. The study was conducted in a single province of the country which limits the generalizability of the study findings, so a shift to multiple provinces or cross countries may change the findings.

Availability of data and materials: The datasets used or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

Funding: The author declares that no funding is received for this study.

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