



click for updates

Self-esteem challenges of nursing students: an integrative review

Leila Valizadeh¹, Vahid Zamanzadeh², Rahim Badri Gargari³, Akram Ghahramanian², Farnak Jabbarzadeh Tabrizi^{2*}, Brian Keogh⁴

¹Department of Pediatric Nursing, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran

²Department of Medical Surgical Nursing, Faculty of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran

³Department of Psychology, University of Tabriz, Tabriz, Iran

⁴School of Nursing & Midwifery, Trinity College Dublin, Dublin, Australia

Article info

Article Type:
Review

Article History:

Received: 18 Jan. 2016
Accepted: 1 March 2016
published: 30 June 2016

Keywords:

Nursing
Self-esteem
Nursing student
Challenge

Abstract

Introduction: Self-esteem among nursing students is important in providing high-quality service to clients, yet each study in this field has described only a portion of existing relevant knowledge. Integrative review studies are the best practice for identification of existing nursing knowledge. The purpose of this study was to determine self-esteem challenges among nursing students.

Methods: An integrative review was conducted in this study. The databases ProQuest, Medline on PubMed, Science Direct, Google Scholar and IranMedex were used for the review. The articles were retrieved in three steps, including searching by search terms, reviewing the proceedings based on inclusion criteria and final retrieval and assessment of the available full texts. We used a list of keywords, including nursing, self-esteem and challenges and mixed them with "AND" and "OR" as a search strategy. Papers were included and eligible if they were associated with problems related to nursing students' self-esteem. Those studies that focused only on the self-esteem of registered nurses or patients were excluded. Search results were limited to the years 1960-2014.

Results: Our findings showed three major challenges, including challenges associated with inconsistency in determining the level of students' self-esteem, self-esteem associated challenges in professionalism of students, and the psychosocial challenges pertaining to the consequences of low self-esteem.

Conclusion: The findings suggest there is a need for more qualitative research to explore the factors that contribute to self-esteem in nursing students with a particular focus on the factors that increase or decrease self-esteem. In addition, strategies to maintain and increase self-esteem need to be designed, implemented and evaluated.

Please cite this article as: Valizadeh L, Zamanzadeh V, Badri Gargari R, Ghahramanian A, Jabbarzadeh Tabrizi F, Keogh B. Self-esteem challenges of nursing students: an integrative review. Res Dev Med Educ 2016;5(1):5-11. doi: 10.15171/rdme.2016.003.

Introduction

Self-esteem can be defined as an individual's perception of feeling worthy and satisfaction with themselves. In other words, it means how close the real self is to the ideal self.¹ People's self-views play an important role in how they think, behave and feel.² Self-esteem is one of the most important factors affecting mental health.³ It is a developmental phenomenon because it is formed and will vary over time and a dynamic phenomenon because although it has stability but is open to change.⁴ Thus, Rosenberg⁵ considers self-esteem as a stable characteristic of adults, while contemporary researchers believe that it is a developmental process that is affected by new situations.⁵

The nature of nursing demands that nursing students face various stressful situations,⁶ and the relationship between self-esteem and the quality of nursing care is undeniable.³ In nursing, it is suggested that self-esteem is one of the most influential factors on occupational behaviors of nursing students.⁷ Accordingly, there is no doubt in the significance of self-esteem among nursing students.⁸ According to our review of the literature, it seems that the majority of studies on nursing students' self-esteem have focused on determining the level of self-esteem⁹⁻¹³ or strategies to improve it.¹⁴⁻¹⁷ No review studies that comprehensively show the existing schema (knowledge or what is known and what is unknown about this topic) on stu-

*Corresponding author: Farnak Jabbarzadeh Tabrizi, Email: jabbarzadehf@tbzmed.ac.ir



© 2016 The Authors. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, as long as the original authors and source are cited. No permission is required from the authors or the publishers.

dents' self-esteem were found. Therefore, it is necessary to conduct studies to show the existing schema, determine challenges and to recommend what researchers, instructors and nursing managers should focus on to deal with possible challenges. An integrative review of research is one of the best methods to determine the current knowledge in a particular area.¹⁸ To this end, we used an integrative literature review as a research methodology. This study was designed based on this method, and aimed at illustrating the existing knowledge and discovering the self-esteem related challenges among nursing students. Results from this study can establish the context for researchers in determination of qualitative and quantitative research priorities in the field of self-esteem among nursing students.

Materials and Methods

This study aimed to identify and classify the existing challenges to self-esteem among nursing students according to relevant specialized studies. Integrative reviews are the broadest type of research review method, allowing for simultaneous inclusion of experimental and non-experimental research in order to more fully understand a phenomenon of concern.¹⁹ These reviews are conducted to identify, analyze and synthesize the results from independent studies to determine what is known and unknown in a particular area.¹⁸ An integrative review progresses through three stages: literature search, data evaluation and data analysis.²⁰

Literature search (search strategy for identification of studies)

The databases ProQuest, Medline on PubMed, Science Direct, Google Scholar and IranMedex were used to review and analyze the relevant studies. Search terms were combined in various ways according to database structure (using and, or, etc).

Search terms

The following search were used for databases: nursing, self-esteem, nursing student and challenge.

Hand searching

The reference list of included studies was searched.

Study Selection

Titles and abstracts were screened by the two reviewers to identify articles to retrieve in full.

Full articles were reviewed by the two reviewers against the inclusion criteria. Reasons for exclusion were recorded. For example, in the Science Direct database, the search began using the advanced search section. In the "search for" section, the words "self-esteem" and "nursing" were used by selecting the icons "title" and "and." In the "refine your search" section, the icon "nursing and health profession" was selected. The years of study were also selected from 1960 to 2014. Accordingly, 12 articles were found in the search results. The articles were investigated in terms of the inclusion and exclusion criteria. The same process was also repeated for the aforementioned database using

the "keywords" icon.

Data extraction

The articles were retrieved in three steps, including searching by search terms, reviewing the proceedings based on inclusion criteria and final retrieval and assessment of the available full texts.

During the article data extraction process, journal name, author's name and publication date were deleted to reduce search engine bias. To this end, a number was assigned to each article.

We explored 165 published papers on nursing students' self-esteem, fulfilling eligible criteria by searching in databases. Our research was restricted to English language studies published after 1960 and Persian language studies published between 1990 and 2014. The underlying reason for selecting the year 1960 as the reference for the review study was that the majority of self-esteem theories were advanced after this time.

Data evaluation

The literature review and selection of relevant articles was carried out in three steps (Figure 1). In the first step, 165 articles were collected using the keywords. In the second step, all articles, one by one, were screened through surveying the abstract and through inclusion and exclusion criteria as well. Then, 38 articles were chosen to be surveyed. Researchers chose only the articles which included the desired conditions and had full texts accessible from the website of Tabriz University of Medical Science were. Finally, 25 articles were reviewed (Table 1).

Inclusion criteria

Papers were included and eligible if they were associated with problems related to nursing students' self-esteem, if they were original or review articles and we had access to the full text of the articles (English or Persian).

Exclusion criteria

Those studies that focused only on the self-esteem of registered nurses or patients were excluded from this review.

Data analysis (data synthesis)

The primary goals of data analysis are to achieve a comprehensive interpretation of primary sources followed by an innovative synthesis of the findings.¹⁹ This is accomplished through the ordering, categorization and summarization of all eligible articles retrieved.²¹ Selected articles were completely studied and investigated and required information (purpose, methodology of the studies and also the specific instrument) was extracted and summarized using the designed extraction table (Table 1).

Results

Focus of the studies

The focus of the studies can be classified into 4 categories. Some studies (4 of them) were conducted merely to measure the level of self-esteem during a certain period

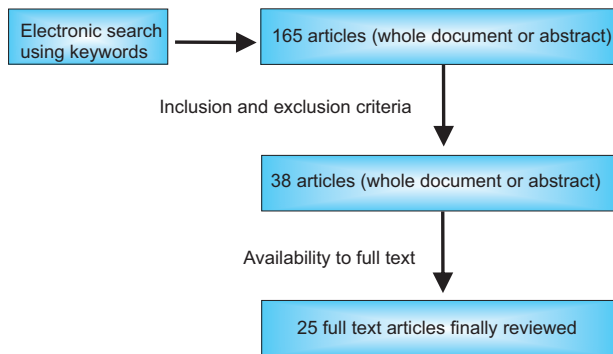


Figure 1. Search and selection strategy.

of time.^{9,11-13,22} Among these, some of studies not only measured the level of self-esteem, they also compared the levels of self-esteem in different academic years. The second group of studies addressed the relationship between self-esteem and some cognitive factors (such as critical thinking) or behavioral ones (such as academic failure) or demographic ones (such as gender).^{10,23-32} The third group of studies concentrated on the strategies by which the self-esteem of nursing students could be improved.^{6,14-17,33-35} Finally, a review study investigated the consequences of decreased self-esteem among students (Table 1).⁸

Instrument

The tool used in the majority of them was the Rosenberg Self-esteem Scale^{6,12-16,24-30,33,34} (Table 1).

Extracted challenges

The challenges extracted from previous studies are as follows:

- 1- Challenges associated with inconsistency in determining the level of students' self-esteem: Findings of the evaluated studies, showed that the self-esteem of the majority of nursing students was at medium or low levels^{10,15,24,25,28} or their level of self-esteem showed a declining trend from entrance until graduation.¹⁶ But it seems that these results are different and sometimes contradictive. A number of studies reported that nursing students' self-esteem was within the normal range^{22,31} or it was ascending.^{12,13}
- 2-Self-esteem associated challenges in professionalism of students: In findings of a review study, it was discovered that nursing students with low self-esteem were less able to engage in interactive communication with their classmates and clients. Furthermore, their efficacy and empathy were low in comparison with students with high self-esteem.⁸ In addition, self-esteem was identified as an important factor in student professionalism.²⁶ In another study, the role of self-esteem was emphasized in the development of critical thinking of students.²⁴
- 3- The psychosocial challenges pertaining to the consequences of low self-esteem: In the studies which were reviewed, depression was identified as an important consequence of decreased self-esteem among students.²⁵ It was also clarified that decreased self-esteem was directly relat-

ed to the dropout rate of nursing students.^{10,27}

Discussion

Challenge means something that needs determination to deal with or achieve.³⁶ In the present study, 3 major challenges associated with the self-esteem of nursing students were identified.

Challenges associated with inconsistency in determining the level of students' self-esteem

Regarding challenges related to levels of self-esteem, most of the studies reported medium or low self-esteem.^{10,15,24,25,28} Low levels of self-esteem among nursing students is still considered one of the most important challenges to the nursing profession.⁸ However, the level of self-esteem of students was reportedly normal in some of the other studies reviewed.^{22,31} In domestic studies, these results were different and sometimes contradictive. For example, in a study conducted in Iran, 56.1% of nursing students had low self-esteem.²⁵ However, almost 91% of students had high self-esteem in another study conducted in 2000.³¹ In yet another study in 2009, the majority of students (73%) had medium self-esteem.²⁴ In one study, students' self-esteem had an increasing trend as academic years increased,¹² while in another study there was a decreasing trend.¹¹ Now the issue of concern is which factors influence the reported changes in self-esteem among nursing students?

In some of the evaluated studies, students' low self-esteem was thought to be associated with educational systems.⁸ Some of them employ either different teaching methods or training methods based on behavior change models to improve self-esteem.^{6,35} Now the question is, what are other factors involved in students' low self-esteem? For example, how can students' personality traits such as their self-confidence influence their self-esteem? Which factors play a greater role in changing students' self-esteem? In other words, "Which conditions reduce the self-esteem of students or stabilize it at normal ranges?" In the review of the literature, no study of this nature was located. Studies with a mixed method or purely qualitative methodology are recommended.

In the majority of studies, the Rosenberg self-esteem scale was used to evaluate the self-esteem of students.^{15,24,25,28} It is one of the most widely-used inventories to measure general self-esteem.³⁷ Regarding the measurement specificity of self-esteem inventories, some researchers believe that measurement scales addressing a general evaluation of self-esteem are the best scales to measure the structure of self-esteem. However, some other researchers such as Marsh and Smith believe that the more specific the inventories are, the more superior they are to other ones.³⁷ According to some researchers, general self-esteem is more involved with affective aspects, whereas specific self-esteem encompasses both affective aspects and cognition.³⁸ As a result, the development of specific tools is required for the measurement of specific domains of self-esteem, such as self-esteem in nursing students.

Table 1. List of considered articles related to challenges of nursing student self-esteem from 1960 to 2015 in second retrieval phase

	First author (Year) context	Type of study	The main centralization	Self-esteem instrument	Summary of finding related to aim of study
1	Dimitriadou–Panteka (2014) ⁸ ■ Greece	Review of literature	Attribute lowering self-esteem nursing students	-	<ul style="list-style-type: none"> ■ Nurses with low self-esteem: A: come across with significant difficulties in communication with colleagues and patients. B: had low level of empathy and efficacy.
2	Lacobucci (2012) ²⁶ ■ USA	Descriptive correlational study	Level of self-esteem and its correlation with perceived confidence and ethical decision making	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Senior nursing students may be have high level of self-esteem.
3	Ni (2012) ¹⁴ ■ China	Cross-sectional survey	Coping strategies	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Teaching strategies that promote the self-esteem may be useful for helping students develop coping strategies.
4	Peterson-Graziose (2013) ²⁷ ■ USA	Descriptive correlational	Attrition as a in nursing students	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Self-esteem significantly correlated with student attrition rate.
5	Sasat (2002) ⁹ ■ UK and Thai	Descriptive comparative	Level of student self-esteem	■ Culture-Free Self-Esteem Inventory	<ul style="list-style-type: none"> ■ There were no indication of differences in levels of self-esteem for UK and Thai students
6	Megahed (2014) ¹⁵ ■ Saudi Arabia	Quasi-experimental	Effect of teaching strategies (cooperative learning) on self-esteem	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Low self-esteem was founded between nursing students.
7	Furegato (2008) ¹⁰ ■Brazil	Descriptive correlational	Presence of depression among nursing students in relation to their self-esteem	■ Janis & Field Self-esteem Scale	<ul style="list-style-type: none"> ■ 63.4% presented medium levels of personal esteem. ■ Having depression implies associated medium levels of self-esteem
8	Randle (2003) ¹¹ ■ UK	Cohort	Measures of professional and global self-esteem during 3 years program	<ul style="list-style-type: none"> ■ Professional self-concept nursing inventory ■ Tennessee Self Concept Scale 	<ul style="list-style-type: none"> ■ Although the majority of students starts their nurse training with normal self-esteem, they leave the course with below average self-esteem
9	Begley (2003) ¹² ■ Ireland	Descriptive comparative	Level of students perceived self-esteem during 3 years	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Level of students self-esteem rose as they neared the end of their course.
10	Lim (2010) ¹⁶ ■ Korea	Quasi-experimental	Effect of teaching strategies (cognitive-behavioral therapy) on self-esteem	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Cognitive-behavioral therapy have a positive effect for increasing self-esteem of students.
11	Lo (2002) ¹³ ■ Australia	Case study	Perception and source of stress regarding coping and self-esteem	■ Rosenberg Self-esteem Scale	<ul style="list-style-type: none"> ■ Students in year 3 had more positive self-esteem than year 2.
12	Cha (2013) ²² ■ Korea	Descriptive cross sectional study	Degree expression patterns and its correlation with self-esteem	Self-linking/self-competence scale-revised version	<ul style="list-style-type: none"> ■ The degree of students self-esteem revealed a higher than the medium value.

Table 1. Continued

13	Suliman (2007) ²⁸ ■ Jordan	Descriptive comparative study	Critical thinking and its correlation with self-esteem	■ Rosenberg Self-esteem Scale	■ Level of students self-esteem was average. ■ Critical thinking is positively correlated with self-esteem.
14	Ni (2009) ²⁹ ■ China	Cross sectional	Mental health and its correlation with self-esteem, coping, individual factor	■ Rosenberg Self-esteem Scale	■ The mental health was related to self-esteem.
15	Taylor (2001) ³³ ■ Australia	Mixed method	The effect of complementary therapies (healing touch) on self-esteem	■ Rosenberg Self-esteem Scale	■ There were on effect on self-esteem of first year student, but there were some slight effects for the third year students
16	Azizi (2013) ²⁵ ■ Iran	Descriptive correlational	Depression and its correlation with self-esteem	■ Rosenberg Self-esteem Scale	■ Depression was related to self-esteem. ■ Most of the students had a low level of self-esteem
17	Izadi Tameh (2013) ³⁰ ■ Iran	Descriptive correlational	Attachment style and its correlation with self-esteem	■ Rosenberg Self-esteem Scale	■ Improvement of attachment style is an important factor to increase self-esteem.
18	Jannati (2012) ³¹ ■ Iran	Cross-sectional study	Emotional intelligence and its correlation with self-esteem	■ Coopersmith Self-esteem Inventory	■ 91% of students had high self-esteem. ■ Emotional intelligence has a significant correlation with self-esteem.
19	Barkhordary (2009) ²⁴ ■ Iran	Correlational study	Critical thinking and its correlation with self-esteem	■ Rosenberg Self-esteem Scale	■ There was a significant correlation between critical thinking disposition and self-esteem. ■ Most of the students had a low level of self-esteem
20	Ghaffari (2007) ¹⁷ ■ Iran	Clinical trail	The effect of a treatment method (Getting regular exercise) on self-esteem	■ Coopersmith Self-esteem Inventory	■ Getting regular exercise is an important factor to increase self-esteem
21	Peyrovi (2013) ²³ ■ Iran	Descriptive correlational	Relationship between self-esteem and demographic variable	■ Coopersmith Self-esteem Inventory	■ There was a relationship between self-esteem and gender, semester of study, school and student work experience
22	Kamali (2009) ³² ■ Iran	Descriptive correlational	Relationship between academic achievement and self-esteem variable	■ Coopersmith Self-esteem Inventory	■ There was a relationship between self-esteem and academic achievement
23	Lakdzaji (2009) ⁶ ■ Iran	Quasi-experimental study	Effect of teaching strategies (guided reciprocal peer questioning) on self-esteem	■ Rosenberg Self-esteem Scale	■ Results indicated a more positive impact of questioning method on self-esteem
24	Yoon (2011) ³⁴ ■ Korea	Quasi-experiment study	The effect of a training method (interpersonal relationship program) on self-esteem	■ Rosenberg Self-esteem Scale	■ Interpersonal relationship programs have positive effects for improving interpersonal relationships and self-esteem
25	Lin (2004) ³⁵ ■ Taiwan	Longitudinal research design	The effect of a training method (assertiveness training program) on self-esteem	■ Malley and Bacman scale	■ The assertiveness and self-esteem of the experimental group were significantly improved in nursing student after treatment

High self-esteem has an important role in achieving academic success along with the individual and social responsibility of people.^{39,40} In other words, self-esteem is a very important factor that leads to individuals feeling a sense of success and happiness. Conversely, low self-esteem or feeling inferior to others is displayed as a sense of embarrassment, shame, exaggerated arrogance, a need for showing off and an intense desire to be praised by others.⁴¹

The psychosocial challenges pertaining to the consequences of low self-esteem

Results of the present study demonstrated that some of the evaluated studies conducted on students' self-esteem have focused on the relationship between risk of depression and low self-esteem. On the other hand, according to most studies, the level of students' self-esteem was medium or low. Therefore, this question has been raised: what interventions could be conducted to prevent psychological consequences of low self-esteem such as depression? In dealing with challenges, using opportunities has been stated as one of the best possible solutions. Therefore, it is suggested to focus on what opportunities are available to nursing instructors and managers to cope with the challenges of psychological consequences resulting from low self-esteem in students and how they can use available opportunities. It is suggested to conduct specific studies in this field.

Self-esteem associated challenges in professionalism of students

Findings of a review study indicated that nursing students with low self-esteem were less able to engage in interactive communications with classmates and clients. In addition, the levels of efficacy and empathy were also lower among them⁸ and in another study, self-esteem was identified as an important factor in student professionalism.

Professionalism includes special attributes, one dimension of which is associated with behavioral traits.⁴² According to the results of evaluated studies, since the majority of students indicated mediocre or low levels of self-esteem, it appears that other attributes of professionalism such as becoming an expert or developing skills and knowledge may be influenced by student's levels of self-esteem. Given what was mentioned, the following questions can be discussed. First, what attributes does the definition of self-esteem include in relation to the nursing students? On the other hand, how are such attributes related to professionalism among students? Are the students with high self-esteem more inclined to acquire the knowledge and skill required for the nursing profession? It is recommended that exclusive qualitative studies be conducted on this area.

Conclusion

Accordingly, the need for performing specific research, especially of the qualitative type, into increasing and decreasing factors of self-esteem among nursing students, defining professional self-esteem specific to nursing students and developing instruments specific to students'

self-esteem seems essential. In addition, conducting studies, especially of the qualitative type, for controlling and improving self-esteem outcomes in nursing students is recommended. The design and psychometrics of specific inventories are recommended for the evaluation of self-esteem among students.

Regarding the role of self-esteem in professionalization of nursing students and its relationship with psychological consequences, it seems that nursing educators should pay more attention to issues of self-esteem in nursing students. In the current study, the papers that were freely accessible through Tabriz University of Medical Sciences were used. Further studies should be conducted on this field.

Ethical approval

This research was part of a Ph.D. dissertation that was approved by the Ethics Committee of Tabriz University of Medical Sciences. Ethical aspects were considered in all steps of the study and texts belonging to other authors that have been used in any part of this study have been fully referenced.

Competing interests

There is no conflict of interest.

Acknowledgments

This article was part of a Ph.D. dissertation approved by the research deputy of Tabriz University of Medical Sciences with the ethics code 5/4/7617. Our sincere appreciation goes to the research deputy for their financial support. We should like to thank Professor Catherine Turner for critical review of this article.

References

1. Mohtashemi J, Noghani F, Madadi AA. Individual and social psychology. 1st ed. Tehran: Jameenegar; 2008. [In Persian].
2. DeMarree KG, Rios K. Understanding the relationship between self-esteem and self-clarity: the role of desired self-esteem. *J Exp Soc Psychol* 2014;50:202-209. doi: 10.1016/j.jesp.2013.10.003.
3. Trzesniewski KH, Donnellan MB, Robins RW. Stability of self-esteem across the life span. *J Pers Soc Psychol* 2003;84(1):205-220. doi: 10.1037/0022-3514.84.1.205.
4. Wilson TD, Dunn EW. Self-knowledge: Its limits, value, and potential for improvement. *Annu Rev Psychol* 2004;55:493-518. doi: 10.1146/annurev.psych.55.090902.141954.
5. Rosenberg M. *Conceiving the Self*. Florida: RE Krieger; 1986.
6. Lakdzaji S, Abdollahzadeh F, Hassankhanh H, Kalantari M. Impact of guided reciprocal peer questioning on nursing students' self-esteem and learning. *Iran J Nurs Midwifery Res* 2013;18(4):285-289. doi: 10.5812/thrita.8716.
7. Randle J. Bullying in the nursing profession. *J Adv Nurs* 2003;43(4):395-401. doi:10.1046/j.1365-2648.2003.02728.x
8. Dimitriadou-Panteka A, Koukourikos K, Pizirtzidou E. The Concept of Self-Esteem in Nursing Education and its Impact on Professional Behavior. *International Journal of Caring Sciences* 2014;7(1):6.
9. Sasat S, Burnard P, Edwards D, Naiyapatana W, Hebden U, Boonrod W, Arayathanitkul B, Wongmak W. Self-esteem and student nurses: a cross-cultural study of nursing students in Thailand and the UK. *Nurs Health Sci* 2002;4(1-2):9-14. doi: 10.1046/j.1442-2018.2002.00095.x.
10. Furegato AR, Santos JL, Silva EC. Depression among nursing students associated to their self-esteem, health perception and interest in mental health. *Rev Lat Am Enfermagem*

- 2008;16(2):198-204. doi: 10.1590/s0104-11692008000200005
11. Randle J. Changes in self-esteem during a 3 year pre-registration diploma in higher education (nursing) programme. *Learning in Health and Social Care* 2003;2(1):51-60. doi: 10.1046/j.1473-6861.2003.00037.x.
 12. Begley CM, White P. Irish nursing students' changing self-esteem and fear of negative evaluation during their preregistration programme. *J Adv Nurs* 2003;42(4):390-401. doi: 10.1046/j.1365-2648.2003.02631.x.
 13. Lo R. A longitudinal study of perceived level of stress, coping and self-esteem of undergraduate nursing students: an Australian case study. *J Adv Nurs* 2002;39(2):119-126. doi: 10.1046/j.1365-2648.2000.02251.x.
 14. Ni C, Lo D, Liu X, Ma J, Xu S, Li L. Chinese female nursing students' coping strategies, self-esteem and related factors in different years of school. *J Nurs Educ Pract* 2012;2(4):33. doi:10.5430/jnep.v2n4p33
 15. Megahed MM, Mohammed FA. Effect of cooperative learning on undergraduate nursing students' self-esteem: A quasi-experimental study. *J Nurs Educ Pract* 2014;4(11):1. doi: 10.5430/jnep.v4n11p1.
 16. Lim JY, Kim MA, Kim SY, Kim EJ, Lee JE, Ko YK. The effects of a cognitive-behavioral therapy on career attitude maturity, decision making style, and self-esteem of nursing students in Korea. *Nurse Educ Today* 2010;30(8):731-736. doi: 10.1016/j.nedt.2010.01.014.
 17. Ghafari F, Fotoukian Z, Mazloum SR. Effects of aerobic exercise program on nursing students' self-esteem. *Journal of Babol University of Medical Sciences* 2007;9(9):52-57. [In Persian].
 18. Burns N, Grove SK. *The practice of nursing research: appraisal, synthesis, and generation of evidence*. 6th ed. Unknown: Elsevier Health Sciences; 2005.
 19. Whittemore R, Knafl K. The integrative review: updated methodology. *J Adv Nurs* 2005;52(5):546-553. doi: 10.1111/j.1365-2648.2005.03621.x.
 20. Broome ME. *Integrative literature reviews for the development of concepts. Concept development in nursing: foundations, techniques and applications*. Philadelphia: WB Saunders Company; 2000. p. 231-250.
 21. Cooper HM. *Synthesizing research: a guide for literature reviews*. Thousand Oaks, CA: Sage; 1998.
 22. Cha NH, Sok SR. Depression, self-esteem and anger expression patterns of Korean nursing students. *Int Nurs Rev* 2014;61(1):109-115. doi: 10.1111/inr.12076.
 23. Peyrovi H, Ghezlbash S, Ghorbani A, Inanloo M, Alizadeh H, Haghani H, et al. Relationship between self esteem and demographic variables among undergraduate student nurses. *Journal of Health and Care* 2012;14(4):52-61. [In Persian].
 24. Barkhordary M, Jalalmanesh S, Mahmoodi M. The relationship between critical thinking disposition and self esteem in third and fourth year bachelor nursing students. *Iranian Journal of Medical Education*. 2009;9(1):13-19. [In Persian].
 25. Azizi M, Khamseh F, Rahimi A, Barati M. The relationship between self-esteem and depression in nursing students of a selected medical university in Tehran. *Iranian Journal of Psychiatric Nursing* 2013;1(1):28-34.
 26. Iacobucci TA, Daly BJ, Lindell D, Griffin MQ. Professional values, self-esteem, and ethical confidence of baccalaureate nursing students. *Nurs Ethics* 2013;20(4):479-490. doi: 10.1177/0969733012458608.
 27. Peterson-Graziose V, Bryer J, Nikolaidou M. Self-esteem and self-efficacy as predictors of attrition in associate degree nursing students. *J Nurs Educ*. 2013;52(6):351-4. doi: 10.3928/01484834-20130520-01.
 28. Suliman WA, Halabi J. Critical thinking, self-esteem, and state anxiety of nursing students. *Nurse Educ Today* 2007;27(2):162-168. doi: 10.1016/j.nedt.2006.04.008.
 29. Ni C, Liu X, Hua Q, Lv A, Wang B, Yan Y. Relationship between coping, self-esteem, individual factors and mental health among Chinese nursing students: a matched case-control study. *Nurse Educ Today* 2010;30(4):338-343. doi: 10.1016/j.nedt.2009.09.003.
 30. Izadi Tameh A, Hosseinzadeh M, Ezate Aghajari P. Relationship between attachment style, self-esteem and hopefulness in nursing students. *Journal of Zabol University of Medical Sciences and Health Services* 2014;6(1):16-25.
 31. Janati Y, Musavi SA, Âzimi Lolaty H, Fani Saberi L, Hamta A, Feyzi S, et al. Investigating Emotional intelligence and self esteem level among nursing and midwifery Students of Mazandaran University of Medical Sciences in 2010. *Journal of Mazandaran University of Medical Sciences* 2012;21(1):254-261. [In Persian].
 32. Kamali S, Jafari E, Fathi A. Correlation between academic achievement and self-esteem in students of Zanjan Faculty of Nursing and Midwifery 1388. *Journal of Medical Education Development* 2009;2(2):17-24. [In Persian].
 33. Taylor B, Lo R. The effects of healing touch on the coping ability, self esteem and general health of undergraduate nursing students. *Complement Ther Nurs Midwifery* 2001;7(1):34-42. doi: 10.1054/ctnm.2000.0518.
 34. Yoon HS, Kim G-H, Kim J. Effectiveness of an interpersonal relationship program on interpersonal relationships, self-esteem, and depression in nursing students. *J Korean Acad Nurs* 2011;41(6):805-813. doi: 10.4040/jkan.2011.41.6.805.
 35. Lin YR, Shiah IS, Chang YC, Lai TJ, Wang KY, Chou KR. Evaluation of an assertiveness training program on nursing and medical students' assertiveness, self-esteem, and interpersonal communication satisfaction. *Nurse Educ Today* 2004;24(8):656-665. doi: 10.1016/j.nedt.2004.09.004.
 36. *Medical Dictionary*. Challenge: definition and synonyms: medical dictionary [Internet]. Macmillan Publishers; 2016 [cited 2016]. Available from: http://www.macmillandictionary.com/dictionary/british/challenge_1
 37. Blascovich J, Tomaka J. Measures of self-esteem. *Measures of Personality and Social Psychological Attitudes* 1991;1:115-160. doi: 10.1016/b978-0-12-590241-0.50008-3.
 38. MacKinnon NJ. *Self Esteem and Beyond*. 1st ed. Basingstoke: Palgrave Macmillan; 2015.
 39. Naderi H, Abdullah R, Aizan HT, Sharir J, Kumar V. Self-esteem, gender and academic achievement of undergraduate students. *American Journal of Scientific Research* 2009;3:26-37.
 40. Brown JD. Self-esteem and self-evaluation: Feeling is believing. *Psychological Perspectives on the Self* 2014;4:27-58.
 41. Farhadi A, Javaheri F, Gholami Y, Farhadi P. The amount of mirthfulness and its relation with self-reliance in students of Lorestan University of Medical Sciences. *The Quarterly Journal of Fundamentals of Mental Health* 2005;7(25-26):57-62. [In Persian].
 42. Björkström ME, Athlin EE, Johansson IS. Nurses' development of professional self--from being a nursing student in a baccalaureate programme to an experienced nurse. *J Clin Nurs* 2008;17(10):1380-1391. doi: 10.1111/j.1365-2702.2007.02014.x.