



# Learning Styles and Their Relationship with Self-Esteem and Self-Efficacy among Nursing Students in Qazvin

Ali Razaghpour <sup>1</sup>, Peyman Namdar <sup>2</sup>, Rahman Panahi <sup>3</sup>, Leili Yekefallah <sup>4</sup>, Erfan Javanmardi <sup>5</sup> and Leila Dehghankar <sup>4,\*</sup>

<sup>1</sup>Student Research Committee, School of Nursing & Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran

<sup>2</sup>Emergency Medicine Specialist, Department of Emergency Medicine, Metabolic Disease Research Center, Qazvin University of Medical Science, Qazvin, Iran

<sup>3</sup>School of Medical Sciences, Tarbiat Modares University, Tehran, Iran

<sup>4</sup>Department of Nursing, Social Determinants of Health Research Center, Research Institute for Prevention of Non-communicable Diseases, School of Nursing & Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran

<sup>5</sup>Clinical Research Development Center, Persian Gulf Martyrs Hospital, Bushehr University of Medical Sciences, Bushehr, Iran

\*Corresponding author: Department of Nursing, Social Determinants of Health Research Center, Research Institute for Prevention of Non-communicable Diseases, School of Nursing & Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran. Email: dehghan247@gmail.com

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## Abstract

**Background:** Learning styles, as individual characteristics, form and evolve as we grow older, which in turn may improve the students' educational outcomes. Identifying factors that contribute to learning styles helps us further to better achieve this goal.

**Objectives:** The present study aimed to, firstly, determine learning styles and, secondly, investigating their relationship with self-esteem and self-efficacy.

**Methods:** In this cross-sectional study, 150 nursing students were selected through a convenience sampling method. Data were collected using VARK standard questionnaire, Rosenberg self-esteem scale, and Sherer self-efficacy scale. Data were analyzed using SPSS v22 by descriptive and analytical tests.

**Results:** The mean age of participating students was  $21.04 \pm 3.43$  years. Overall, 83.2% of them preferred one learning style. The most common preferred style was "auditory style". Mean scores of self-esteem and self-efficacy were  $21.25 \pm 5.07$  and  $62.66 \pm 7.31$ , respectively. No significant relationship was observed between students' self-esteem and self-efficacy with their learning styles ( $P > 0.05$ ).

**Conclusions:** Determining students' preferences for learning style is the first step to improve their educational outcomes.

**Keywords:** Learning, Self-Esteem, Self-Efficacy, Nursing, Education

## 1. Background

Standards of the nursing profession are constantly evolving as new evidence arise. Hence, those who teach nursing students should be at the edge of current knowledge (1). However, nursing students differ in terms of skills, abilities, experiences, levels of preparation, as well as their preferences, which these differences have brought challenges for their instructors (2). Previous studies mentioned several factors that contribute to these differences in learning, one of the most important of which is "learning styles" (3).

According to concepts and definitions of learning styles, learning has different cognitive, affective, and behavioral dimensions and is based on observation, interaction, and responsiveness (4, 5). Furthermore, individual characteristics such as age, gender, personality, race, and environmental factors also influence the learning abilities

(5). Therefore, educational researchers believe individuals use different learning styles that are fitted to their individual differences (6).

Several models of learning styles have been introduced in previous studies. One of these models is the "VARK learning styles model", first introduced by Fleming in 1995 (4, 5). He categorized students into four categories based on their learning styles as follows: 1- Visual learners who can learn information through the interpretation of graphs, charts, and images; 2- Aural learners prefer to learn information through discussion and listening; 3- Reading and writing learners focus on learning through elaborating notes, and 4- Kinesthetic learners prefer to learn through performing various (7). The advantage of this model is focusing on the performance of individuals in different situations (5, 8). Thus, the VARK model provides a good learning environment for students and encourages them to better learn