

# An Investigation into Self-efficacy, Clinical Decision-making and the Level of Relationship between them among Nurses in Guilan Province

Alizadeh I(Ph.D)<sup>1,3</sup> - Salari A(MD)<sup>2</sup>- Ahmadnia Z(MA)<sup>3</sup>- \*Moaddab F(Ph.D Stu)<sup>3</sup>

\*Corresponding Email Address: Department of Nursing, Cardiovascular Diseases Research Center, Heshmat Hospital, Rasht, Iran

Email: f.moaddab89@gmail.com/Gums.icrc@gmail.com.

Received: 26/Nov/2019 Revised: 16/Apr/2020 Accepted: 10/May/2020

## Abstract

**Introduction:** Different studies have investigated the effects of various factors on self-efficacy and clinical decision-making among nurses and other professionals in the fields of health and treatment. There is, however, little research investigating self-efficacy, clinical decision-making, and the level of relationship between them with regard to the environment and culture of organizations.

**Objective:** This study was conducted with the aim of investigating self-efficacy and clinical decision-making among nurses in terms of individual and social variables and discovering the level of relationship between self-efficacy and 'clinical decision-making among nurses in Guilan Province in 2017-2018.

**Materials and Methods:** This is a descriptive cross-sectional study and 222 nurses working at different units of teaching and treatment centers in the city of Rasht were recruited after obtaining formal written consent from them. The data collection instruments were a demographic questionnaire, a self-efficacy questionnaire and a decision-making questionnaire. To analyze the data, SPSS/ 21 was used.

**Results:** The results showed no significant difference between nurses' clinical decision-making scores and the demographic variables of age ( $p=0.4$ ), education level ( $p=0.27$ ), Bachelor's degree in nursing ( $p=0.198$ ), work experience ( $p=0.39$ ) and work shift ( $p=0.9$ ). There was, however, a significant correlation between self-efficacy score and the age ( $p=0.001$ ) and work experience at the hospital ( $p=0.002$ ). The logistic regression analysis indicated that self-efficacy has a significant effect on decision making after controlling for the predictor effects in such a way that by adding one point to the self-efficacy score the score of clinical decision making increased by 0.39 points.

**Conclusions:** Understanding the relationship between self-efficacy and clinical decision-making of nurses can be indicative of the need for various training courses to improve the self-efficacy level of nurses so that this working class can create better clinical decisions.

**Key words:** Clinical Decision-Making / Nurses / Self-Efficacy

Journal of Guilan University of Medical Sciences \ Volume 29, Issue 2, (No 114), Pages:38-49

**Please cite this article as:** Alizadeh I, Salari A, Ahmadnia Z, Moaddab F. An Investigation into Self-efficacy, Clinical Decision-making and the Level of Relationship between them among Nurses in Guilan Province. J of Guilan University of Med Sciences, 2020; 29(2):38-49.

1. Department of English Language, Faculty of Nursing Midwifery Langrood, Guilan University of Medical Sciences, Rasht, Iran

2. Cardiovascular Diseases Research Center, Department of Cardiology, Heshmat Hospital, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran

3. Department of Nursing, Cardiovascular Diseases Research Center, Guilan University of Medical Sciences, Rasht, Iran

## Extended Abstract

**Introduction:** Nurses comprise one of the largest groups of health providers and perform a key part in the management of clinical issues in hospitals as well as other health centers(1). Nurses' responsibility and the necessity of making accurate decisions in nursing services require that they be able to make accurate judgments in critical clinical situations to save patients' lives(2). Different studies have investigated the effects of various factors on self-efficacy and clinical decision-making among nurses and other professionals(3,4,5). There has been, however, little research investigating self-efficacy, clinical decision-making, and the level of relationship between them with regard to the environment and culture of organizations.

**Objective:** With regard to the large role of nursing in the provision of health services, this study aimed to investigate self-efficacy and clinical decision-making among nurses in Guilan Province in 2017-2018 in terms of individual and social variables and discover the level of the relationship between self-efficacy and clinical decision-making among them.

**Materials and Methods:** This is a descriptive cross-sectional study and 222 nurses working at different units of teaching and treatment centers in the city of Rasht were recruited using the census sampling method. Formal written consent was obtained from all participants in the study and ethical considerations were observed in all phases of the research. The participants were informed that participation in the study is voluntary and their information will remain confidential. Arrangements were also made with the nursing office to carry out the study.

The data collection instruments were a demographic questionnaire, a self-efficacy questionnaire, and a decision-making questionnaire. The demographic questionnaire contained items on the participants' age, education, job experiences, and work shift. The self-efficacy questionnaire consisted of 37 items in the four areas of assessing patients' health, nursing diagnosis, planning care program, implementing care program, and evaluating care program. The questionnaire was developed based on a five-point Likert scale of strongly disagree, disagree, no idea, partially agree, and agree. The score of each item on it ranged from zero to 100 points and the overall score of the questionnaire from zero to 100. An average score in the range from zero to 44 shows low self-efficacy in clinical performance, an average score from 45 to 65 indicates a moderate self-efficacy in clinical performance, and an average score of above 65 shows

an acceptable level of self-efficacy in clinical performance. The reliability of the questionnaire was estimated at %94(6). The decision-making questionnaire consisted of 24 items and developed based on a five-point Likert scale of always, often, sometimes, hardly, and never. The score of each item on it ranged from one to five points and the overall score of the questionnaire from 24 to 120. The reliability of the questionnaire was estimated at %85(7). To analyze the data, SPSS/ 21 was used.

**Results:** The results showed that the age range of the participants was between 20 to 59, %95.5 of the participants had a bachelor's degree in nursing, and 29.9% of them had a job experience of 1 to 5 years. The results showed that there was no significant difference between the nurses' clinical decision-making score and the demographic variables of age ( $p=0.4$ ), an education level ( $p=0.27$ ), Bachelor's degree in nursing ( $p=0.198$ ), work experience ( $p=0.39$ ) and work shift ( $p=0.9$ ). There was, however, a significant correlation between the self-efficacy score, the age ( $p=0.001$ ) and work experience ( $p=0.002$ ). It was shown that night shift nurses with an age range of 40-49, a master's degree and work experience of 6 to 10 years had a better average score of decision making. It was also indicated that participants with a work experience of over 20 years had a better average score of self-efficacy, compared to the less experienced counterparts.

Despite no significant statistical relationship between the education level and work shift with the nurses' self-efficacy, the nurses with a master's degree and morning shift had a better self-efficacy score.

The logistic regression analysis indicated that self-efficacy has a significant effect on decision making after controlling for the predictor effects in such a way that by adding one point to the self-efficacy score the score of clinical decision making increased by 0.39 points.

**Conclusion:** The promotion of nurses' self-efficacy can improve the quality of health care services in hospitals across the country. Based on the results of the present study, it is suggested that nursing authorities in education, research and management pay special attention to the work environment of the patients. Understanding the relationship between self-efficacy and clinical decision-making of nurses can be improved by holding various training courses so that they can make better clinical decisions.

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