

# Self-efficacy among Nursing students at RAK Medical and Health Sciences University, United Arab Emirates.

Dr. Sneha Pitre PhD<sup>1</sup>, Dr. Victoria Funmilayo Hanson PhD<sup>2\*</sup>, Dr. Vijaya Kumardhas PhD<sup>3</sup>

<sup>1</sup>RAK Medical and Health Sciences University, RAK College of Nursing. Ras Al Khaimah, United Arab Emirates  
Email: sneha@rakmhsu.ac.ae

<sup>2</sup>RAK Medical and Health Sciences University, RAK College of Nursing. Ras Al Khaimah, United Arab Emirates  
Email: victoria@rakmhsu.ac.ae

<sup>3</sup>RAK Medical and Health Sciences University, RAK College of Nursing. Ras Al Khaimah, United Arab Emirates  
Email: vijaya@rakmhsu.ac.ae

\*Corresponding Author: Dr. Victoria Funmilayo Hanson

## Abstract:

Background Development of Self-efficacy is an important component of nursing education, determining how successful nursing students will be as health care professionals. Nurse educators thus play a significant role in assessment of the self-efficacy and creating conducive environment that support its development. Aim: to assess the self-efficacy among nursing students. Methods: Cross sectional survey was conducted among 214 undergraduate nursing students from RAKMHSU. All nursing students who gave informed consent participated in the study. Generalized Self-Efficacy scale developed by Schwarzer, R., & Jerusalem, M. (1995) was used for assessing self-efficacy among nursing students. Data was analyzed by using SPSS 25 version. Results: Majority of the participants were females (82.7%), unmarried (91.6%) and between age group of 18-22 years. High level of self-efficacy was observed among 56% students followed by moderate in 35.51% and low among 8.41%. One way ANOVA did not reveal significant association among nursing students as per their level of education. However, significant difference in self-efficacy score was observed between first and fourth year nursing students. No significant association between level of self-efficacy and age, gender, and birth order was observed. These results indicates that high level of self-efficacy is possessed by substantial number of students (56%), however still there is need to pay attention to the students having moderate to low level of self-efficacy.

Conclusion: Assessment of general self-efficacy among nursing students reflects effectiveness of nursing curricula in building future nursing force. Hence it should be made as an integral part of summative evaluation. Perceived self-efficacy may be influenced by the direct exposure to vicarious experience or verbal persuasion. Individuals with high levels of self-efficacy demonstrate the defining attributes of confidence, perceived capability, and perseverance.

**Keywords:** Self-efficacy, General self-efficacy, nursing students perceived capability

## Introduction

Nursing profession is always sensitive to the needs of society. Thus, advancements in health care technology, complexity of human behavior, and natural calamities have placed a greater emphasis on competency-based nursing education, embracing knowledge, skill, and most importantly ability, allowing future nurses to become proficient professionals. This need has been intensified by the findings of the study where Performance-Based Development System assessments was done among more than 5000 newly graduated nurses. Only 23 % of the nurses demonstrate entry-level competencies and practice readiness (Kavanagh, 2017). One of the reason could be inadequate development of self-efficacy which has been observed as an indicator in predicting nursing student's performance in clinical practice (Zengin et al., 2014).

Self-efficacy refers to a person's belief in his or her ability to meet the challenges and complete the task successfully (Akhtar, 2008). Individuals with high level of self-efficacy can accomplish the expected goals, face challenges by taking efforts in mastering the required skills. In case of failure they accept it positively and attribute it to inadequate efforts. Hence these individuals face lower level of stress as compared to those with low self-efficacy (Shorey & Lopez, 2021).<sup>4</sup> Nursing students are exposed to many challenges while accomplishing learning outcomes in form of exposure to new environment, completing assignments, personal responsibilities, meeting deadlines, fear of doing mistakes, etc. which can induce stress (Aljohani et al., 2021).<sup>5</sup> If it persists can lead to burnout as observed in the study by Lopes & Nihei, (2020). Where among 284 nursing students high burnout level (6.0%), feeling of emotional exhaustion (36.3%), depersonalization (37.7%) and low personal

accomplishment (28.2%) was observed. Negative correlation between self-efficacy and emotional exhaustion and positive correlation between personal accomplishment empathy and self-efficacy was observed (Lopes. & Nihei, 2020). Developing competency in patient centered communication is vital for the outcome of care. It was evident from an cross sectional survey among 242 nursing professionals, statistically significant ( $p < 0.01$ ) correlation was observed between communication skill and general efficacy. Findings also suggest that nurses with high self-efficacy are confident ,fosters good interpersonal relationship with patient ,family members and heath care team (Leal-Costa et al.,2020) . Critical thinking is crucial in nursing education and practice. It is a process where individual can analyze, synthesize and evaluate the information he or she has collected through various sources like observations, experience, reasoning, communication and feedback from supervisor. An empirical model emerged that showed how flexibility in learning objectives could describe critical thinking development in relation to how much space is left for students to take charge of their own learning. It was concluded that the idea of focused dialogue between teachers and students, and in particular among teachers themselves, in order to organize curriculum experiences for critical thinking (Ning, Wang & Lim. 2021).

Nursing education predominates clinical practice where students are expected to develop competency in providing evidence based care. In this aspect, also students with a high level of self-efficacy demonstrated a greater ability to provide evidence-based care (Herliani et al. 2018). This review illustrates significance of self-efficacy among nursing students, which is a basic requirement to be a successful professional. Moreover recently Nursing education in the United Arab Emirates (UAE) has witnessed a revolutionary change. It has been revised and is at par with international standards which demands the nursing students to be competent , confident which further emphasizes the need to have professionals who believe in their abilities and are willing to utilize it for achieving excellence in professional life . There have been numerous studies related to the self-efficacy and its significance in nursing education. Researchers, however, couldn't find a database that explored nursing students' self-efficacy in the UAE. The findings of the study will provide educators with valuable information about the self-efficacy of nursing students, enabling them to further plan strategies to promote this competency.

**Material & Methods:**

**Aim of the study:** To assess the self-efficacy among the Nursing students.

**Research design:** Descriptive cross sectional survey design was used in the study.

**Sampling method:** Data was collected from 214 undergraduate nursing students by using consecutive method of sampling.

**Instrument:** Generalized Self-Efficacy scale developed by Schwarzer & Jerusalem (1995) was used for assessing self-efficacy among nursing students. It is a four point Likert scale, which contains ten items. Score between 10 -20 was considered as low, 21- 30 moderate and 31-40 as high. Internal reliability for the tool is .76.

**Data collection procedure:** After receiving permission from ethical committee of the university (RAKMHSU-REC-094-2021/22-F-N), all the nursing students were approached .Purpose of the study was explained and data was collected by using self-report technique from those who gave informed consent.

**Data analysis:** SPSS version 25 was used for the analysis of the data.

**Table 1** Demographic characteristics of participants (n =214)

Characteristics	Category	frequency	Percentage
Gender	Male	37	17.3
	Female	177	82.7
Age	18-22 Years old	157	73.4
	23-27 Years old	49	22.9
	>=28 Years old	8	3.7
Year of education (BSN)	BSN Year-I	62	29.0
	BSN Year-II	56	26.2
	BSN Year-III	56	26.2
	BSN Year-IV	40	18.7
Marital Status	Married	18	8.4
	Unmarried	196	91.6
Birth order	1-3	105	49.1
	4-6	70	32.8
	≥ 7	39	18.1

As per the data presented in Table- 1 majority of participants (73.4%) are between 18-22 years, unmarried (91.6%) and are females.

**Table 2:** Level of Self efficacy among nursing students

Category	f	Low		Moderate		High	
		f	%	f	%	f	%
BSN program	214	18	8.41	76	35.51	120	56.07
BSN 1 <sup>st</sup> year	62	8	12.90	26	41.93	28	45.16
BSN 2 <sup>nd</sup> year	56	3	5.36	18	32.14	35	62.50
BSN 3 <sup>rd</sup> year	56	4	7.14	19	33.92	33	58.92
BSN 4 <sup>th</sup> year	40	3	7.5	13	32.5	24	60

Data presented in Table 2 indicates that overall 56.07 % has high level of self-efficacy whereas substantial number of students (35.51%) has

moderate and 8.14 % has low level of self-efficacy. It also suggests that low level of self-efficacy is more in first year nursing students ( 12.90%) as compare to students belonging to second, third and fourth year of BSN program. Percentage of high level of self-efficacy is also observed more in senior students than first year.

**Table 3** One Way analysis Of Variance related to self-efficacy among nursing students

Source	SS	df	MS	F value	P value
Between-groups	38.8726	3	12.9575	$F = 0.29543$	.828
Within Groups	9210.7209	210	43.8606		
	9249.5935	213			

Mean scores related to self-efficacy among four groups of nursing students as per year of education indicates that there is no significant difference as f value is not significant at .05 level of significance.

**Table 4:** Comparison of self-efficacy score between First and Forth year nursing students

Year of education	N	Mean	Variance	df	t value	sign
First	62	28.5	41.86	100	1.69	.047
Forth	40	30.8	50.63			

As per the information presented in Table 4 there is a significant difference in mean score of self-efficacy among first and fourth year nursing students (t - 1.68541) at  $p < .05$

**Table 5:** Association between the level of self-efficacy and selected demographic variables among nursing students.

Variable	Category	Low	Moderate	High	Chi square value	P - value
		f	f	f		
Age: Years	18-22 23 - 27 ≥ 28	12 6 0	58 15 3	88 28 4	2.086	.719
Gender	Male Female	3 15	13 63	22 98	.0640	.968
Marital status	Married Unmarried	0 18	10 66	8 112	4.349	.113
BSN Year of study	1st 2nd 3rd 4th	8 3 4 3	26 18 19 13	28 35 33 24	5.216	.516
Birth order	1-3 4-6 ≥ 7	11 4 3	35 29 12	59 38 23	2.287	.683

As per the data presented in Table – 5 no significant association have been observed between levels of self-efficacy and selected demographical variables.

**Discussion:**

214 nursing students participated in the present study. With respect to demographical

characteristics majority were female (82.7%), between age group of 18-22 (73.5%) years and unmarried ( 91.6% ). This observation indicates that female dominance still exists in this profession. Similar findings was observed by ( Zhang et al .2015).

Self-efficacy refers to the individual’s belief in their own abilities that plays a significant role in the life of nursing students. It determines how they are going to face the challenges and take efforts in achieving their goal of becoming an effective health care professional. Present study revealed the level of self-efficacy among undergraduate nursing students. 56 % had high level, 35.51% moderate where as 8.41 % belonged to low level of self-efficacy. Similar findings are observed in a study by (Iwona Bodys-Cupak et al., 2021).

Findings of the study indicates that more than 50% students with high level of self-efficacy are capable of utilizing their cognitive skills in making appropriate decisions and facing challenges positively( Shorey & Lopez, 2021). Several factors such as environment, nursing colleagues, and clinical educators could influence the creation of clinical self-efficacy in nursing students (Abdal et al. 2015).It helps them to be a highly effective and efficient health care professional.

In the present study one way ANOVA did not revealed significant difference ( $p - .828$ ) in mean scores among four levels of students. However, the percentage of students exhibiting a high level of self-efficacy was low (45.26%) among first year students as compared with second-year (62.50%), fourth-year (60%) and third-year (58.92%) students.

It indicates that students are receiving appropriate opportunities and guidance to boost their confidence and belief in their own abilities as they progress through their course of the study. Yet another finding of the present study support this opinion as when difference in mean score among first and final year students was assessed it revealed significant difference at  $p < .05$  . These findings are consistent with the study done by (Iwona Bodys-Cupak .2021).

Present study findings also revealed that 35.51 % students had moderate whereas 8.41 % were having low level of self-efficacy. Individuals with low self-efficacy are observed to have fear of taking risk, uncertainty, feelings of failure and impression management. Fear of risk and failure prevents them to take new challenges, perform new procedures as they feel that they are not going to succeed. With reference to uncertainty, these individuals like to participate in the activities which they feel they will be able to perform successfully. An impression management strategy involves controlling and

regulating information in social interactions with the goal of influencing the perceptions of others about a person, object, or event. Individuals with these characteristics try to give excuses, provides explanations to avoid disapproval and try to control perception about them by others (Sanaria, 2016). All these characteristics affects the development of self-efficacy which may not allow them to utilize their full potential and result in spoiling their own career. This study also discusses the role of self-efficacy in nursing interventions by providing examples of studies conducted in health promotion in patients and academic performance of nursing students<sup>4</sup>.

Having low self-efficacy further develops avoidance behavior where students are hesitant to try on new skills or seek help which may result in frustration and anxiety. It is quiet harmful for progress of the students as well as nursing profession as they may not be prepared to provide quality care to the clients in diverse health care setting. These findings suggests that nurse educators must find out the basic reasons and implement appropriate strategies to built on their strength , overcome the weaknesses and achieve success ( Shorey & Lopez, 2021).

Self-efficacy is not an innate characteristic it is acquired through learning. Hence many researchers have recommended various strategies for its improvement. Onieva-Zafra et al. (2020) in a study on Anxiety, perceived stress and coping strategies in nursing students opined that Nursing students in the study presented a moderate level of stress, in addition there was a significant correlation with anxiety. Nursing teachers and clinical preceptors/mentors should be encouraged to develop programs to help prepare nursing students to cope with the challenges they are about to face during their clinical placements Gibbons(2010) suggests, verbally validating student learning, providing positive feedback and positively supporting can increase students' self-efficacy. Whereas Bandura recommends four types of sources which can be used to increase self-efficacy among nursing students such as mastery experience, vicarious experiences ,verbal persuasion , emotional and physiological states. Mastery experience refers to personal experience of success (Bandura, 1997).Self-efficacy is strengthened by success while it is weakened by failure. Therefore, nursing students with low or moderate self-efficacy need guidance and opportunities to practice skills that they do not succeed at but are required to be effective health care professionals.

Vicarious experience refers to the learning by observing the others performing the particular

activities successfully. Usefulness of this strategy was evident from the findings of the study related to effect of interprofessional simulation based learning on self-efficacy among perioperative nursing students. Kaldheim (2021) states that observing others led to the participants reflecting on their own performance and thinking about how they would approach the challenges of simulated cases.

Persuasion through verbal means such as constructive feedback, encouraging language, and a sense of belief that every individual has the potential to succeed helps students to overcome their fears, gain greater confidence, and be more focused and energetic in improving their performance. (Baherimoghadam et al., 2021) In view of Wood and Bandura (1989) also “... *if people receive realistic encouragement, they will be more likely to exert greater effort and to become successful than if they are troubled by self-doubts.*” Emotional and physiological state during performance of any activity affects self-efficacy. Moreover it depends on the perception of stress, level of anxiety and mood of an individual. Negative correlation was observed between level of stress and self-efficacy among nursing students. Thus, nurse educators must identify stressors and promote coping strategies among students (Bodys-Cupak. 2016). Bandura has suggested role modeling as an effective strategy to improve self-efficacy of an individual. According to his theory human being learns through observation. It is quiet true in nursing. Nursing teachers are role model for the students.

Findings of the present study did not reveled significant association between Age, gender, level of education and level of self-efficacy. However, these findings are not similar with the study done by Viswam Athira (2017) where significant association was observed between these variables and self-efficacy among nursing students. With respect to birth order findings are in line with study conducted among 100 adults by (Kavanagh, 2014). There was no association between birth order and self-efficacy; however, the score of self-efficacy was higher among those without siblings and lower among the youngest.

## **Conclusion:**

Findings of this study indicates that though 56 % of the nursing students has high level of self-efficacy. still there is need to plan innovative strategies for the students who has moderate and low level of self-efficacy to prepare them to be successful in their chosen profession at global level. There is a need for continuous education

program for the faculty to guide the nursing students in the enhancement of self-efficacy.

### Implications:

Preparing competent nursing force is a need of an hour. Being one of the indicator self-efficacy could be analyzed as part of the formative evaluation process. It will help educators to have an evidence-based understanding of the efficacy of nursing curricula in preparing students to meet society's health care needs. Findings of the study also suggest the need of identifying reasons for having low and moderate self-efficacy; in view of acting appropriately to improve and sustain it among students with high score.

### ACKNOWLEDGEMENT

We would like to thank the students of the Nursing College in RAKMHSU for their active participation in the study.

**CONFLICT OF INTEREST:** None declared

### Reference:

- [1]. Kavanagh JM, Szweda C. A crisis in competency: The strategic and ethical imperative to assessing new graduate nurses' clinical reasoning. *Nursing Education Perspectives*. 2017 Mar 1; 38 (2):57-62.)
- [2]. Zengin N, Pinar R, Akinci AC, Yildiz H. (2014) Psychometric properties of the self-efficacy for clinical evaluation scale in Turkish nursing students. *Journal of clinical nursing*. 2014 Apr;23(7-8):976-8
- [3]. Akhtar, M. (2008). What is self-efficacy? Bandura's 4 sources of efficacy beliefs. *Positive Psychology*. Retrieved from <http://positivepsychology.org.uk/self-efficacy-definition-bandura-meaning>.
- [4]. Shorey, S., Lopez, V. (2021). Self-Efficacy in a Nursing Context. In: Haugan, G., Eriksson, M. (eds) *Health Promotion in Health Care – Vital Theories and Research*. Springer, Cham. [https://doi.org/10.1007/978-3-030-63135-2\\_12](https://doi.org/10.1007/978-3-030-63135-2_12)
- [5]. Aljohani, W., Banakhar, M., Sharif, L., Alsaggaf, F., Felemban, O., & Wright, R. (2021)
- [6]. Lopes, A. R., & Nihei, O. K. (2020). Burnout among nursing students: predictors and association with empathy and self-efficacy. *Revista brasileira de enfermagem*, 73.
- [7]. Leal-Costa, C., Tirado González, S., Ramos-Morcillo, A. J., Ruzafa-Martínez, M., Díaz Agea, J. L., & van-der Hofstadt Román, C. J. (2020). Communication Skills and Professional Practice: Does It Increase Self-Efficacy in Nurses? *Frontiers in psychology*, 11, 1169.)
- [8]. Ning Yuan Lee, Zijun Wang & Bernice Lim (2021) The development of critical thinking: what university students have to say, *Teaching in Higher Education*, DOI: 10.1080/13562517.2021.1973412
- [9]. Herliani, Y., Harun, H., Setyawati, A., & Ibrahim, K. (2018). Self-efficacy and the competency of nursing students toward the implementation of evidence-based practice. *Jurnal Ners*, 13(1), 50-56.
- [10]. Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs*, 35, 37.)
- [11]. Vancouver Zhang ZJ, Zhang CL, Zhang XG, Liu XM, Zhang H, Wang J, Liu S(2015) Relationship between self-efficacy beliefs and achievement motivation in student nurses. *Chinese Nursing Research*. 2015 Jun 1; 2 (2-3):67-70.
- [12]. Iwona Bodys-Cupak , Anna Majda, Anna Kurowska, Ewa Ziarko and Joanna Zalewska-Puchała(2021) Psycho-social components determining the strategies of coping with stress in undergraduate Polish nursing students Bodys- *BMC Nursing* (2021) 20:129 <https://doi.org/10.1186/s12912-021-00630->
- [13]. Onieva-Zafra et al. (2020) Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study *BMC Medical Education* (2020) 20:370 <https://doi.org/10.1186/s12909-020-02294-z>
- [14]. Abdal, M., Masoudi Alavi, N., & Adib-Hajbaghery, M. (2015). Clinical Self-Efficacy in Senior Nursing Students: A Mixed-Methods Study. *Nursing and midwifery studies*, 4(3), e29143. <https://doi.org/10.17795/nmsjournal29143>
- [15]. Sanaria, A. D. (2016). A conceptual framework for understanding the impression management strategies used by women in indian organizations. *South Asian Journal of Human Resources Management*, 3(1), 25-39
- [16]. Jing Liu, Yeqin Yang, Junya Chen, Yi Zhang, Yawei Zeng, Jufang Li, Stress and

- coping styles among nursing students during the initial period of the clinical practicum: A cross-section study, *International Journal of Nursing Sciences*, Volume 9, Issue 2, 2022, Pages 222-229, ISSN 2352-0132, <https://doi.org/10.1016/j.ijnss.2022.02.004>.
- [17]. Gibbons C. Stress, coping and burn-out in nursing students. *Int J Nurs Stud.* 2010; 47(10):1299–309. doi: 10.1016/j.ijnurstu.2010.02.015. [PubMed] [CrossRef] [Google Scholar]
- [18]. Bandura, A. (1997). Self-efficacy: toward a unifying theory of behavioral change. *Psychol. Rev.* 84, 191–215.
- [19]. Kaldheim, H. K. A., Fossum, M., Munday, J., Creutzfeldt, J., & Slettebø, Å. (2021). Use of interprofessional simulation-based learning to devel perioperative nursing students' self-efficacy in responding to acute situations. *International Journal of Educational Research*, 109, 101801
- [20]. Baherimoghadam, T., Hamedani, S., Mehrabi, M., Naseri, N., & Marzban, N. (2021). The effect of learning style and general self-efficacy on satisfaction of e-Learning in dental students. *BMC medical education*, 21(1), 463. <https://doi.org/10.1186/s12909-021-02903-5>
- [21]. Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of management Review*, 14(3), 361-384.
- [22]. Bodys-Cupak, I., Majda, A., Zalewska-Puchała, J., & Kamińska, A. (2016). The impact of a sense of self-efficacy on the level of stress and the ways of coping with difficult situations in Polish nursing students. *Nurse Education Today*, 45, 102-107.
- [23]. Viswam Athira, Kaviyabala, D., Sayujya, C.P., Thakur Varsh and Buvanewari, R. 2017. "Self-efficacy among nursing students *International Journal of Current Research*, 9, (08), 55 Available online at <http://www.journal> Vol. 9, Issue, 08, pp.55748-55751,
- [24]. Kavanagh, C. (2014). An investigation into the relationship between birth-order and levels of self-efficacy and motivation in emerging adulthood.