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Self-Directed Learning Readiness among Nursing Students at King Khalid University, Kingdom of Saudi Arabia

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Abstract

Introduction: In nursing education, students are emboldened to identify their own learning needs in their journey of studying the course, evaluate self-motivation in acquiring new information, and process learning outcomes. This study determines the SDLR in terms of self-management, desire for learning, and self-control domains among nursing students at King Khalid University (KKU) Saudi Arabia. It includes female students enrolled in lower years. ***Materials and Methods***: Descriptive-correlational methods were used to investigate the research. Frequencies, percentages, mean, and standard deviation were employed to measure and examine values using IBM SPSS statistics version 25. Fisher's exact test (FET) was utilized to explore the probability of associations between the participants' demographics and SDLR scales. The Spearman rho (rs) correlation coefficient was applied to analyze the strength of association between variables. The Cronbach's alpha (α) reliability coefficient for the translated tool was .829. ***Results***: The respondents strongly agree they can be trusted to pursue their learning, being confident in their ability to search out information, and being disciplined. Wanting to learn new and enjoy and learn from their mistakes predominates their responses. In self-control, the respondents strongly agree they can find information, make their own decisions, and are responsible for their own decisions/actions. Age in years is statistically significant to the self-directed learning readiness scale. The variable on self-management vs. self-control shows a very high positive correlation. ***Conclusion***: The self-directed learning readiness scale of students unequivocally places them to respond positively and develop more knowledge and skills embedded in the institution.

Keywords: Self-Directed Learning, Female Nursing Students, Learning Readiness.

INTRODUCTION

Self-directed learning readiness (SDLR) is the capability of an individual to engage in the learning process. Simply, it is an individual's readiness to learn by taking the initiative to improve the level of knowledge, comprehension, and development of psychomotor skills. In nursing education, students are emboldened to identify their own learning needs in their journey of studying the course, evaluate self-motivation in acquiring new information, and process learning outcomes.

The conduct of this study underlies the principle of andragogy that focuses on the teaching and training of adults as postulated by Malcolm S. Knowles. The premise of andragogy outlined different assumptions that focus on the learner's need to know, the individual's self-concept, experience, learner's readiness to learn, orientation to learning, and student's motivation [1]. Knowles' principle of andragogy influenced the development of nursing education's teaching methods and overall assessment of nursing students. The teacher's ability to understand learners is a component of quality

teaching. Nurse educators must consider factors that affect the learning process and outcomes [2].

Self-directed learning is one of the many issues highlighted in nursing education. It is one of the elements in nursing education for clinical experiences and to assess their readiness to enter the nursing practice after graduation. Readiness to learn is a distinctive characteristic of any individual wanting to succeed in their chosen field of career. There have been a considerable number of studies related to self-directed learning readiness. In 2017, a scoping review on the factors of self-directed learning readiness of students in health professional programs concluded that the demographics of age, year level, and previous educational level influenced the level of SDLR among the participants [3]. A systematic review presented that factor on environmental influence, personal characteristics, and individual attributes are perceived indicators of developing self-directed learning [4]. The authors emphasized independent learning and small group discussion as vital components of personal attributes.

Moreover, a study of nursing students in Pakistan discloses that self-directed learning depends on the year attainment of students. The finding revealed that senior students demonstrated a top level of readiness compared to those nursing students in their early and junior years [5]. In China, senior nursing students have higher scores for SDLR than students in junior years. The authors stressed that the level of maturation of nursing students is crucial to SDLR improvement [6]. A different factor was analyzed using a cross-sectional design on environmental influence and SDLR, revealing that students' perception of learning and atmosphere, as academics and social perceptions, affect self-learning directed ability among Chinese nursing students [7]. In Turkey, the SDLR of undergraduate midwives and nursing students was explored and showed a high readiness skill. The level of SDLR is statistically different concerning gender and department group [8]. A study about the relationship between SDLR and time management skills was conducted among Turkish undergraduate nursing students and indicated that effective time management has a pivotal role in the improvement of self-directed learning readiness of students [9]. In addition, a study was carried out among Thai nursing students' SDLR and found that broad-mindedness, demonstration of effective leadership, learning initiatives, accountability for individual learning, and analyzing complex problems are remarkably higher than other aspects [10].

There are numerous research concerning SDLR in Saudi Arabia have been conducted. A descriptive-correlational study from three Saudi universities administered an SDLR survey to nursing students. Results indicated that the respondents' self-directed learning readiness varies between the average and above the average scale. Further, the study pointed out that the self-efficacy scale is an element of a student's level of self-directed learning readiness [11]. Another SDLR study in a university in central Riyadh found that the domain in self-control is generally higher than other subscales and pointed to the significance of engaging in active learning and relevant educational methods [12]. The findings of SDLR research reported that the subscale for self-control is high compared with other domains and highlighted student learning styles as a remarkable factor for the development of self-directed learning readiness [13]. In another study, nursing students' SDLRs were high, and there were no notable differences between respondent's profiles and SDLR scores across domains [14]. A consistent finding of the SDLR study affirms the relevance of the learning environment and domains of self-directed learning readiness scales. The authors consider significant teaching strategies and assessment methods essential for student's learning improvement [15]. However, the level of readiness skills among nursing students taking bridging courses and traditional nursing programs was low [16].

The self-directed learning readiness (SDLR) scale attained much attention in evaluating student's readiness to acquire fundamental knowledge and skills both in the classroom and during clinical-related learning experiences. In nursing education, the adult learning principles guide teachers for an effective learning experience [1]. Asking questions and clarifying knowledge is a main determinant of learning. Readiness to learn develops when the learner demonstrates receptiveness, willingness, and participation in the learning process. To assess students' level of readiness, the educator must emphasize his or her learning objectives and teaching domains to assess individual needs [17].

This study aimed to measure the self-directed learning readiness scale among selected undergraduate female nursing students at King Khalid University (KKU), Saudi Arabia. The study describes the association of participants' demographic profiles and self-directed learning readiness (SDLR) scales and determines the correlation between the three SDLR subscales.

MATERIALS AND METHODS

This study utilizes a descriptive-correlational design to determine the self-directed learning readiness in terms of self-management, desire for learning, and self-control domains among nursing students at King Khalid University (KKU), Khamis Mushait, Asir region, Saudi Arabia.

The participants of this study consisted of female students enrolled in lower years of nursing courses for academic year levels 4 and 5, with total respondents of 34 and 23, respectively. The sample size was fifty-seven (57) for this study out of seventy-eight

(78) nursing students using purposive sampling. The response rate was 73%. The collection of data was from January to March 2021.

Data Collection

A permission letter was addressed and granted by the vice dean of the College of Nursing. The questionnaire was given to the respondent after consented to participate in the study. The study utilized a research survey questionnaire in a paper-and-pen format.

Research Instrument

The instrument used in the study is a standardized forty (40) items on self-directed learning readiness (SDLR) scale developed by Fisher, Tague, and King (2001) [19, 20], it has three (3) dimensions: self-management, desire for learning, and self-control, with 13, 12, and 15 items, respectively. The questionnaire uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha (α) reliability coefficient for the translated tool was .829, interpreted as good and acceptable.

Ethical Considerations

Ethical clearance (ECM#2019-99) (HAPO-06-B-001) was obtained from the ethics committee at King Khalid University. The names of the respondents remained unidentified to maintain the privacy and confidentiality of data. The study does not involve videotaping, audio-taping, or any film procedure.

Data Analysis

Frequencies, percentages, mean, and standard deviation were employed to measure and examine values using IBM SPSS statistics version 25. Fisher's exact test (FET) was utilized to explore the probability of associations between the participants' demographics and SDLR scales. Furthermore, the Spearman rho (rs) correlation coefficient was applied to analyze the strength of association between variables. The interpretation of correlation coefficient was: very high positive/negative correlation (.90 to 1.00/-.90 to -1.00), high positive/negative correlation (.70 to .90/-.70 to -.90), moderate positive/negative correlation (.50 to .70/-.50 to -.70), low positive/negative correlation (.30 to .50/-.30 to -.50), and negligible correlation (.00 to .30/.00 to -.30) [18]. The significance level is set at a p-value of <0.05 to validate the hypothetical assumptions of the study.

RESULTS

Figure 1 shows the participants' age profile. The data shows that most of the students who participated in this study ranged from 19 years old to 22 years old. Around 40.4% of students who responded to this study are at least 21 years old. Nearly all (93%) participants were married, as depicted in Figure 2. In terms of living type, almost (98.2%) of them live with their family, as shown in Figure 3. The number of hours of studying per week, as displayed in Figure 4, shows that the majority (72%) studied for more than ten hours per week.

As reflected in Table 1, more than half of respondents strongly agree they can be trusted to pursue their learning, being confident in their ability to search out information, and being disciplined, with percentage rates of 59.6%, 57.9%, and 56.1%, respectively. In addition, the respondents' trust to pursue their learning obtained the highest mean average (4.47±.78) for the self-management subscale.

Table 2 presented that 64.9% of respondents strongly agree on wanting to learn new information. 63.2% of respondents strongly agree on wanting to enjoy information and learn from their mistakes. With regards to the desire for learning subscales, learning new information shows the highest mean average (4.50±.75).

The self-control subscale in Table 3 reveals that respondents strongly agree they can find information, make their own decisions, and are responsible for their own decisions/actions, with a response of 71.9%, 70.2%, and 68.4%, respectively. Also, finding information for themselves showed the highest mean score (4.66±.57) for the self-control subscale.

The probability analysis, as reflected in Table 4, age in years is statistically significant (FET=42.352, $p=.036$) to the self-directed learning readiness scale in terms of the self-control dimension. On the other hand, the result shows that age in years is insignificant to self-management and desire for learning subscales. There is no significant relationship between marital status and hours of studying for the three subscales of the self-directed learning readiness scale.

Table 5 demonstrates the bivariate analysis of SDLR subscales. The variable on self-management vs. self-control shows a very high positive correlation (rs=1). A negative negligible correlation (rs=-.242) was revealed for self-management vs. desire for learning subscales. Similarly, the variable on desire for learning vs. self-control (rs=-.070) showed a negative negligible correlation.

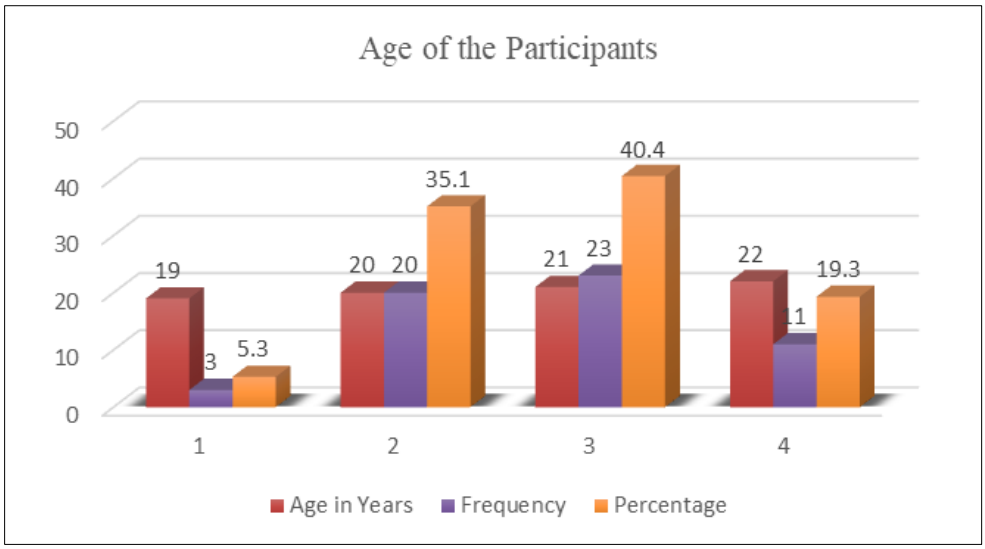

Figure 1: Frequency Distribution of Participant's Age in Years

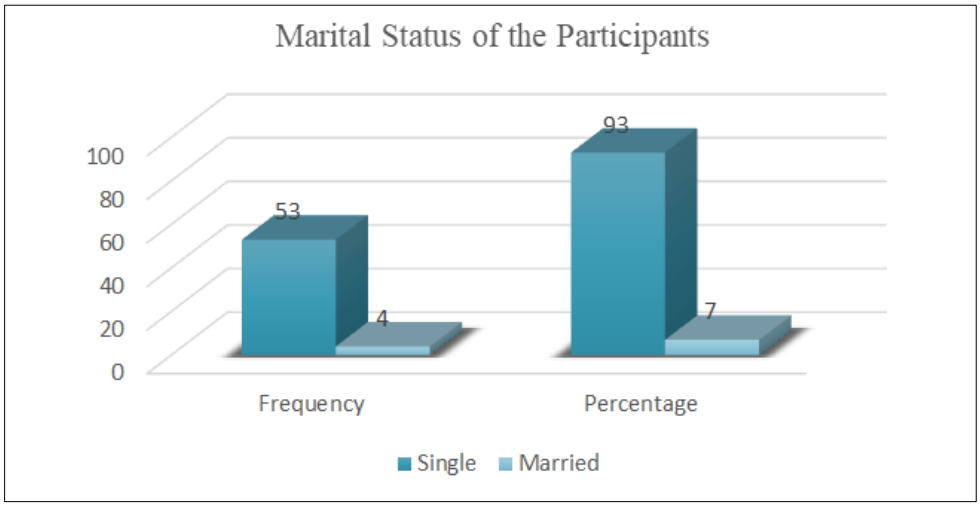

Figure 2: Frequency Distribution of Participant's Marital Status

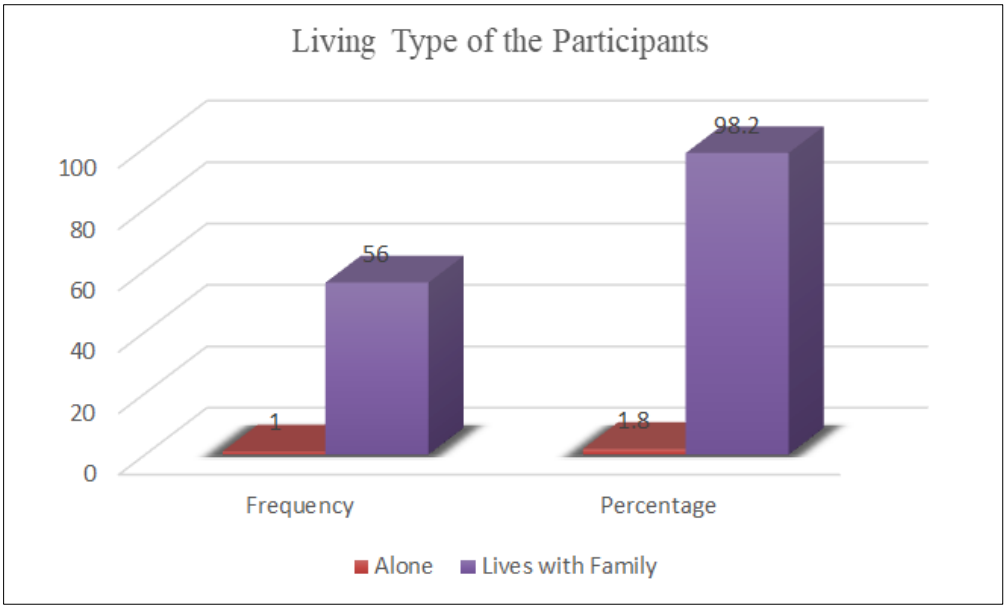

Figure 3: Frequency Distribution of Participant's Living Type

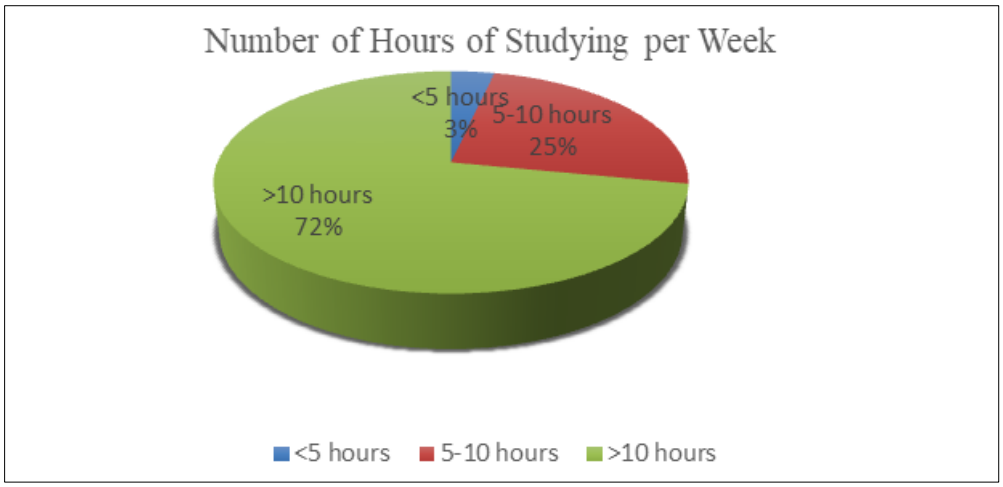

Figure 4: Frequency Distribution of Participant's Number of Hours of Studying per Week

Table 1: Distribution of Frequency, Percentage, and Weighted Average Means of Responses for Self-Management Subscale

Items	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Mean±SD
I solve problems using a plan	1 (1.8%)	4 (7%)	6 (10.5%)	25 (43.9%)	21 (36.8%)	4.07±.96
I prioritise my work	1 (1.8%)	7 (12.3%)	4 (7%)	24 (42.1%)	21 (36.8%)	4.00±1.05
I do not manage my time well	16 (28.1%)	30 (52.6%)	11 (19.3%)	0 (0%)	0 (0%)	1.91±.68
I have good management skills	1 (1.8%)	4 (7%)	8 (14%)	25 (43.9%)	19 (33.3%)	4.00±.96
I set strict time frames	2 (3.5%)	9 (15.8%)	13 (22.8%)	14 (24.6%)	19 (33.3%)	3.68±1.19
I prefer to plan my own learning	0 (0%)	3 (5.3%)	6 (10.5%)	18 (31.6%)	30 (52.6%)	4.31±.86
I am systematic in my learning	0 (0%)	3 (5.3%)	9 (15.8%)	18 (31.6%)	27 (47.4%)	4.21±.90
I am confident in my ability to search out information	0 (0%)	4 (7%)	6 (10.5%)	14 (24.6%)	33 (57.9%)	4.33±.93
I set specific times for my study	0 (0%)	1 (1.8%)	11 (19.3%)	22 (38.6%)	23 (40.4%)	4.17±.80
I am self-disciplined	0 (0%)	3 (5.3%)	7 (12.3%)	15 (26.3%)	32 (56.1%)	4.33±.89
I am disorganized	28 (49.1%)	21 (36.8%)	8 (14%)	0 (0%)	0 (0%)	1.64±.71
I am methodical	0 (0%)	0 (0%)	18 (31.6%)	18 (31.6%)	21 (36.8%)	4.05±.83
I can be trusted to pursue my own learning	1 (1.8%)	0 (0%)	4 (7%)	18 (31.6%)	34 (59.6%)	4.47±.78

Table 2: Distribution of Frequency, Percentage, and Weighted Average Means of Responses for Desire for Learning Subscale

Items	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Mean±SD
I need to know why	0 (0%)	6 (10.5%)	7 (12.3%)	15 (26.3%)	29 (50.9%)	4.17±1.04
I critically evaluate new ideas	0 (0%)	4 (7%)	9 (15.8%)	17 (29.8%)	27 (47.4%)	4.17±.94
I learn from my mistakes	0 (0%)	0 (0%)	8 (14%)	13 (22.8%)	36 (63.2%)	4.49±.73
I am open to new ideas	2 (3.5%)	0 (0%)	3 (5.3%)	18 (31.6%)	34 (59.6%)	4.43±.88
When presented with a problem I cannot resolve, I will ask for assistance	0 (0%)	1 (1.8%)	9 (15.8%)	16 (28.1%)	31 (54.4%)	4.35±.81
I like to evaluate what I do	0 (0%)	0 (0%)	10 (17.5%)	14 (24.6%)	33 (57.9%)	4.40±.77
I do not enjoy studying	23 (40.4%)	18 (31.6%)	16 (28.1%)	0 (0%)	0 (0%)	1.87±.82
I have a need to learn	1 (1.8%)	3 (5.3%)	5 (8.8%)	19 (33.3%)	29 (50.9%)	4.26±.95
I enjoy a challenge	0 (0%)	5 (8.8%)	6 (10.5%)	18 (31.6%)	28 (49.1%)	4.21±.95
I want to learn new information	0 (0%)	1 (1.8%)	6 (10.5%)	13 (22.8%)	37 (64.9%)	4.50±.75
I enjoy learning new information	0 (0%)	1 (1.8%)	2 (3.5%)	16 (28.1%)	36 (63.2%)	4.45±.92
I like to gather the facts before I make a decision	2 (3.5%)	2 (3.5%)	8 (14%)	15 (26.3%)	30 (52.6%)	4.21±1.04

Table 3: Frequency and Percentage Distribution of Responses for Self-Control Subscale

Items	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Mean±SD
I am able to focus on a problem	0 (0%)	0 (0%)	6 (10.5%)	19 (33.3%)	32 (56.1%)	4.45±.68
I prefer to set my own learning goals	0 (0%)	2 (3.5%)	4 (7%)	19 (33.3%)	32 (56.1%)	4.42±.77
I am responsible	0 (0%)	0 (0%)	6 (10.5%)	16 (28.1%)	35 (61.4%)	4.50±.68
I have high personal expectations	0 (0%)	1 (1.8%)	2 (3.5%)	20 (35.1%)	34 (59.6%)	4.52±.65
I have high personal standards	0 (0%)	3 (5.3%)	5 (8.8%)	16 (28.1%)	33 (57.9%)	4.38±.86
I have high beliefs in my abilities	0 (0%)	1 (1.8%)	2 (3.5%)	18 (31.6%)	36 (63.2%)	4.56±.65
I am aware of my own limitations	0 (0%)	0 (0%)	6 (10.5%)	15 (26.3%)	36 (63.2%)	4.52±.68
I am logical	1 (1.8%)	1 (1.8%)	6 (10.5%)	20 (35.1%)	29 (50.9%)	4.31±.86
I evaluate my own performance	0 (0%)	1 (1.8%)	9 (15.8%)	19 (33.3%)	28 (49.1)	4.29±.80
I prefer to set my own criteria on which to evaluate my performance	0 (0%)	0 (0%)	6 (10.5%)	18 (31.6%)	33 (57.9%)	4.47±.68
I am responsible for my own decisions/actions	1 (1.8%)	0 (0%)	1 (1.8%)	16 (28.1%)	39 (68.4%)	4.61±.70
I can find out information for myself	0 (0%)	0 (0%)	3 (5.3%)	13 (22.8%)	41 (71.9%)	4.66±.57
I like to make decisions for myself	0 (0%)	1 (1.8%)	3 (5.3%)	13 (22.8%)	40 (70.2%)	4.61±.67
I prefer to set my own goals	0 (0%)	0 (0%)	6 (10.5%)	15 (26.3%)	36 (63.2%)	4.52±.68
I am not in control of my life	29 (50.9%)	14 (24.6%)	14 (24.6%)	0 (0%)	0 (0%)	1.73±.83

Table 4: Results of Probability Statistics using Fisher's exact test of Self-Directed Learning Readiness Scales (SDLR) according to Participants' Demographics

Dimension FET value (*p-value*) *(Interpretation)*	**Self-Management (*N=13*)**	**Desire for Learning (*N=12*)**	**Self-Control (*N=15*)**
Age in years	36.705, *(.90) (NS)*	33.683, *(.614) (NS)*	42.352 *(.036**) Significant*
Marital Status	14.380 *(.692) (NS)*	12.675 *(.667) (NS)*	14.466 *(1.00) (NS)*
Hours in Studying	24.114 *(.622) (NS)*	20.065 *(1.00) (NS)*	26.029 *(.944) (NS)*

Table 5: Bivariate Analysis of Self-Directed Learning Readiness Subscales

Variable	**r_s value**	***p*-value *(Interpretation)***	**r_s Strength of Correlation**
Self-management vs. Desire for Learning	-.242	.448 *(NS)*	Negligible correlation
Self-management vs. Self-control	1	.428 *(NS)*	Very high positive
Desire for Learning vs. Self-control	-.070	.829 *(NS)*	Negligible correlation

DISCUSSION

Nursing practice necessitates self-readiness to face new challenges in patient care across different health settings. In nursing education, students are expected to develop the competencies of nursing and practice them safely. Students' level of readiness is crucial in grasping knowledge and skills that were influenced by their cognitive ability, emotional aspect, and previous experiences in similar situations.

Being receptive, willing, and participation on the learning process demonstrates readiness to learn [17]. In this study, the level of readiness in terms of the self-management scale pointed out that students' trust in themselves in pursuing a nursing career has a profound impact on their studies. The trust they inculcated as nursing students assisted them in gaining knowledge both in theory and related learning experiences in the clinical setting. Students' confidence to do their tasks as directed by their teachers is a critical component to developing trust.

A study on trust, growth mindset, and student commitment to active learning in a college science course [21], indicated that student commitment and engagement in the learning process were influenced by students' trust in their teachers and their view of their intelligence. Findings from other studies strongly support these valuable insights and conclusions. Further surveys revealed that trust plays a significant role in developing a good teacher-student relationship and creating a good learning environment [22]. Hence, the authors would like

to emphasize that trust as a component of learning increases self-management and builds confidence.

Wanting to learn new information and learning from their mistakes predominates in the desire for learning subscale. When an educator observes a learner and asks a question, the time is prime for learning [17]. The readiness for learning is measured in terms of asking questions, clarifying information, and the art of listening skills. An exploratory study on intentional questioning to promote thinking and learning [23] explains that student's curiosity, thinking, and learning are dependent on the quality of questions teachers ask in the teaching process. Further, to facilitate effective learning, teachers' skills in the art of questioning are essential in the learning process.

The self-control subscale presented that students can manage themselves to find information, makes own decisions, and takes responsibility for their actions. One of the salient points in the learning process is students' self-control ability. Teachers must be consistent in their teaching and learning strategy to develop self-control among their students. In nursing, students are placed on various clinical environment, exposed to different cases of patients' health and medical conditions, and they are expected to analyze and display professionalism to all members in the healthcare team. The self-control subscale presented that students can manage themselves to find information, make their own decisions, and take responsibility for their actions. One of the salient points in the learning process is students' self-control ability. Teachers must be consistent in their teaching and learning strategies to develop self-control among their students. In nursing, students are placed in various clinical environments, and exposed to different cases of patients' health and medical conditions, and they are expected to analyze and display professionalism to all members of the healthcare team. An exploratory study on university students' self-control and self-regulated learning in a blended course [24], reported that student's learning outcomes correlate with self-control, self-regulated learning, and course participation. The findings of the bivariate analysis of this study indicated that the student's self-management and self-control show a positive correlation. The findings highlighted that self-management has a significant relationship with the level of self-control among the students. Certainly, self-directed learning readiness (SDLR) among students across age groups is paramount to the teaching-learning process. Both teachers and students must actively engage in a more meaningful relationship to achieve better educational outcomes.

CONCLUSION

Self-directed learning readiness (SDLR) among students in the Kingdom of Saudi Arabia (KSA) clearly shows that the nursing students equipped themselves to embrace challenges in nursing studies. The nursing students' predominant responses across the SDLR subscales unequivocally place them to respond positively, rise to every challenge, and develop more knowledge and skills embedded in the institution.

Limitation of the Study

The authors would like to emphasize that the generalizations of the findings of the study cannot be ruled out due to the number of representative samples. A larger number of respondents is warranted.

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