Academic self-efficacy and vocational maturity in college students

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Abstract

During the beginning of the pandemic, many university students in the nursing profession faced various uncertainties, among them doubting whether to continue studying a professional career that would demand risks to their health, but despite this there is a noble vocational feeling of patient care, which kept them determined to continue studying and achieve their goals. In addition to the whole context in which the health system and the population found themselves, these two constructs became determinants for persistence and continuity of studies. Academic self-efficacy is understood as students' perception of their own abilities to initiate, solve, and successfully complete assigned tasks. Vocational maturity is the association of skills that people must face in vocational tasks. The present research studies these two variables in university students at a private university in Lima, Peru. The objectives were a) to identify the association between self-efficacy and vocational maturity and b) to establish the differences between self-efficacy and vocational maturity in first and fifth year nursing students. Methods: Quantitative approach, comparative descriptive level, basic, substantive, correlational and non-experimental des ign. We worked with a sample of 190 nursing students, of which 90 participants belong to the first year of studies and 100 participants belong to the fifth year of studies. The instruments used to collect the information were: the vocational maturity questionnaire (Rodriguez, 2015) and the Self-Efficacy scale (Bueno et al., 2018). The results of the study showed

that self-efficacy presents a moderate significant relationship with vocational maturity, concluding that the greater the vocational maturity, the greater the feeling of self-efficacy. Likewise, students in their fifth year of studies have higher levels of self-efficacy and vocational maturity than first-year students.

Keywords: Vocational maturity; Academic self-efficacy; College dropout, nursing vocation

Introduction

Currently, university studies are facing great barriers and problems. Due to all these changes, it is necessary to perform an analysis on personal and professional interests, in addition to promoting the competencies demanded by the current working world. [1] explains that, in the United States, dropout in universities reaches a rate of 35%; in Spain, a rate that exceeds 20%; and, in Italy, dropout to careers reaches an average of 60%. This is basically due to an inadequate selection of careers. [2]describe that there is a greater increase of students enrolled in Latin American universities, but only half of these manage to conclude the professional career.

However, they report that, in Peru, 80% of young people choose to study at a university and that, of the total number of students entering, 35.5% drop out in their first year of studies. According to [3], 27% of young Peruvians who join a university leave their studies during the first two cycles of their career. He also points out four main factors that cause university dropout: poor academic performance, economic imbalances, vocational uncertainty, low motivation, and emotional problems in students. A factor that adds to these necessary elements for the successful continuation of studies is self-efficacy.

Bandura [4] argues that self-efficacy is integrated by a system of perceptions that the individual has about his or her own capabilities. These operate as influential factors in behavior, in the thinking process and in emotional reactions to adverse events, which subsequently determine the person's psychosocial behavior. Based on this fact, the study of self-efficacy could constitute a valuable contribution to the understanding of vocational maturity in students. This is since the greater the self-perception of possessing the abilities to face uncertain situations such as the characteristics of the profession and the educational context, the greater will be the continuous evolutionary process of maturity and strengthening of their vocation. The Program for International Student Assessment reported that, among the 23 countries analyzed, Spain presented a higher index of self-efficacy compared to OCDE countries, as students in Mexico and Turkey were found to have a higher level of self-efficacy and, on the contrary, students in Japan presented lower level of self-efficacy. Consequently, it is observed that many students who present fear of academic failure have a weak perception of self-efficacy, and inability to cope with student activities and goals OCDE.

Several authors have developed research on self-efficacy and vocational maturity, mentioning: [5] who conducted a study in Brazil where they measured the sense of efficacy in a sample of 264 students coming from two higher education centers in Sao Paulo concluding that self-efficacy assumes an important role throughout the student's academic life. [6] developed quantitative descriptive correlational descriptive research on academic self-efficacy in 479 students, of which, 128 belonged to the first and second year of the nursing area of a traditional Chilean university. The authors found a remarkable diversity in the degree of self-efficacy in the sample of students belonging to the group of students from the medical sciences; being the medical students those who scored the highest, followed by nursing students and, at a much lower level, those from the area of Medical Technology.

[7], studied self-efficacy in nursing students and academic performance during formative internships. The methodology was cross-sectional analytical with a sample of 217 students placed in clinical practice placements at the University of Cartagena.

The researchers concluded that 73.7% of nursing students presented a high level of self-efficacy and that the two study variables presented a statistically positive relationship.

[8], investigated academic self-efficacy in a Peruvian university, with a sample of 413 students of the first cycle of nursing, finding in his results a medium level of self-efficacy in female students and a low level in males. It also showed a positive correlation between self-efficacy and learning.

[9], conducted research on vocational maturity and motivation to learn, at the Uiversity of Extremadura, Spain. This study was descriptive with a cluster sampling type, made up of 1540 students aged between 15 and 19 years from 27 educational institutions. In the consolidation of its final evidence, it is mentioned that there is a positive association between the variable vocational maturity and academic motivation. Likewise, it determined that there are no significant differences when comparing students in the 4th year of E.S.O. with students in the 1st year of High school. [10] conducted a study on vocational maturity in university students in Lima, with the aim of evaluating the level of vocational maturity in 83 nursing students who were studying between the seventh and tenth cycle, who were surveyed using the Busot inventory. The results of the study were that 58% of the students were found to be vocationally mature, and the remaining 42% were in the process of vocational maturity. Likewise, it was observed that in the ninth and seventh cycles, there is a higher degree of vocational maturity, while in the eighth and tenth cycles, there is a high rate of students in the process of vocational maturity.

Consequently, educational goals, self-efficacy, self-concept, achievement motivation, family relationships, parental expectations, behavior, social reinforcement, educational strategies, curriculum complexity, educational resources, among others, influence academic motivation [11]. In view of the present situation, the need to know the real state of the students' vocational maturity and its relationship with their sense of self-efficacy is evident. In this way, starting from these strengths, it is possible to effectively direct their decision and consolidate their vocational maturity and their feeling of security to face academic tasks. In this sense, it should be considered that it is the responsibility of university teachers to ensure the comprehensive education of young people.

The research questions that were formulated for the study are:

- Is there a relationship between academic self-efficacy and vocational maturity in nursing students at a private university in Lima?
- Are there differences in academic self-efficacy and vocational maturity in first year and fifth year nursing students at a private university in Lima?

Next, the theoretical foundations of self-efficacy and vocational maturity will be presented. Secondly, the methodological framework of the study will be presented, and the results and interpretation of the data will be shown. Finally, the discussion of the findings will be developed to culminate in conclusions and recommendations

Theoretical Framework

Definitions of academic self-efficacy

The definition of self-efficacy emerges from the Social Theory of Bandura, who defines this concept as that discernment that each person has about his or her own capabilities, and it is on this foundation that the individual plans, organizes and executes actions that will lead him or her to obtain the desired performance. According to the concepts expressed, it is of vital importance to assess the feeling of self-efficacy, since it is this full security that the student possesses that will determine behavior and conduct, to a greater extent than the simple fact of knowing the academic activity.

Self-efficacy has been studied in various aspects of the educational field, such as

those abilities and experiences that influence vocational decision-making [12]. Vocational self-efficacy is defined as the subjective assessment that a person has of his or her abilities and potentialities to study a profession; that is, a feeling of achievement directed to the professional field.

Current research, such as that of [9], demonstrated in their study that 73.7% of nursing students in clinical practice period presented a high level of self-efficacy; [6] found a remarkable diversity in the degree of self-efficacy in the sample of students belonging to the group of students of medical sciences. Ribeiro et al. (2020) explains that self-efficacy assumes an important role throughout the student's academic life.

Academic self-efficacy is understood as the perceptions that people have of their abilities to initiate, solve, and successfully complete their tasks and assignments. This perception of self-efficacy is constructed from experiences. [13] describes the sources of self-efficacy: Previous experience, vicarious experience, verbal persuasion and feedback, physiological and affective states

In summary, self-efficacy comes from sources such as previous experiences that accumulate and are configured as positive or negative experiences. However, there are also the achievements of other people that mean a lot in life and have an indelible value. In addition to this, verbal reinforcers also have an influence, and even more so if they are given on a continuous basis.

Definitions of vocational maturity

Donald Super [14] refers that vocational maturity is the association of skills that a person possesses to face vocational tasks in comparison with other individuals going through the same situation.

These abilities in the adolescent are strengthened as he/she develops other determinants such as personality, emotional state, character, behavior, social skills, among others. [15] conceives the adult person as a passive being in society and not so active. Thus, if a person exercises his profession in accordance with his vocational interest, then he is congruent with his behavior, and his performance will lead to well-being and triumph in his subsequent activities. However, if the person is frustrated by some circumstance, it will cause distress to the individual and collective criticism. Therefore, possibly, the individual will present limitations in the future to develop tasks in each subsequent stage of development. This fulfillment of the tasks that the career brings with it is influenced by intrinsic and extrinsic motivators.

[16] define vocational maturity as a capacity that integrates relevant criteria, such as occupation information, the lifestyles that each profession possesses, socioeconomic aspects, the rise of self-knowledge, the capacity to make decisions, etc. In contrast to this, ignorance of these criteria can trigger disjunctions in the individual, which will distort the vision of his or her vocation. However, [17] states that vocational maturity is not a construct that depends exclusively on intrapersonal factors of the individual, but that there is a greater influence of the type of experience and service that the school provides to the person. Universities play an essential role in the optimal strengthening of vocation, since, if they offer a quality educational service, the student will find satisfaction and will remain studying.

According to [18], vocational maturity is perceived as that ability of the person to face the basic functions for the profession throughout his or her life. This is valued by comparing it with that of other people going through a similar situation with the same responsibilities in the same period of life. For the present research, the concepts, and contributions of Donald Super, who conceives vocational maturity as the capacity of the person to face the tasks of development according to his own integral biological, psychological, social, and spiritual development, are considered. Donald Super's contributions are being valued today and have great influence on the conception of human development, since the evolution of man is sequential, ordered in gradual cycles. This, like the biological anatomical dimension, changes as time goes by. In the same way, the formation of capacities develops evolutionarily, thus achieving greater

maturity day by day. The career maturity model describes five components: planning, exploration, information, decision making and realistic orientation.

Planning: This is the individual's ability to self-analyze and project his or her vision towards the future, based on past events, experiences and experiences, as well as the performance of an occupation that he or she has been developing in the present. The characteristics of this dimension are the capacity to accept, with responsibility, self-confidence, self-efficacy, self-esteem, and full confidence that he/she will successfully develop the career or profession he/she has chosen.

Exploration: This is the individual's capacity to observe himself, to self-explore and self-knowledge, to reflect and ask himself what he wants in life, what is the profession he would like to develop, what is his vocational and personal interest, and if he has the necessary resources to achieve this goal.This ability helps the individual to recognize his/her potential, strengths, virtues, successes, but also his/her weaknesses, fears, and phobias.

Information: Related to the cognitive aspect, it incorporates all the knowledge about the career and the world of work, the epistemic foundations, the mission, and vision of the profession in society, the curriculum, the duration of the career, the purchasing remuneration, the graduate's profile, the areas of professional performance, the future of the discipline, the social need, requirements, and policies, among others. This is all the occupational information you will need to make the right decisions. *Decision making:* Process through which the individual knows the range of knowledge related to the aspect of careers, evaluates them, and compares them with the objective of choosing the most adequate alternative that offers success. Likewise, he/she analyzes possible solutions in case what was planned does not work out, so he/she must foresee and elaborate strategies for the eventuality. This capacity includes the behaviors and fundamentals that guide the decisive choice and the ability to execute them in the face of professional choice dilemmas.

Realistic orientation: It is the most complex capacity that consists of the individual must add to his decisions the criterion of feasibility and project his future goals. He must be aware of whether there is feasibility and viability in relation to the future with everything he has planned to develop his profession. This capacity integrates the set of diverse capacities such as self-knowledge, the strength of vocational interests, the consolidation of self-concept, projects, and the determination of functions in life. The orientation should be as real as possible, in such a way that it is guided by contents coherent with the current context. This should be so, even when the profession appreciated by the student is framed in dilemmas of reality, as is the case of the health professions that are facing great challenges due to the threat of new epidemics. This pandemic can become a threat for those students whose vocation has not yet been decided and consolidated. However, it can also be an opportunity and a challenge that energizes the competitive and motivational spirit of young people. Even when they know that they are risking their lives, they should understand that nursing is a social, humanistic, and highly vocational science and this is an inherent part of the profession they have chosen.

Methods

Research Design

The study belongs to the quantitative route. Based on the concepts and definitions of [4], this route follows a structured pattern, guided by a design and whose purpose is to describe and explain those phenomena investigated by seeking causal relationships between variables, testing hypotheses, and demonstrating theories. The research corresponds to the descriptive level, according to [19], it is categorized as descriptive in the sense that it provides a series of data from the observation of a phenomenon or situation in each context, using techniques to obtain information and, from this, to be able to explain it.

It is substantive research, because it is oriented to the description and explanation of the reality of a problem such as vocational maturity in university students, with which it is intended to provide some theoretical foundations that direct its approach from an educational point of view. It is correlational since it is oriented to find the level of correspondence between the two study variables: self-efficacy and vocational maturity. Finally, it is transactional since the collection of information is carried out in a specific time frame. As for the design, it is a model followed by the researcher to precept a greater control of the variables under study.

Population and sample

The population is finite and consisted of 190 nursing students. The type of sampling used was non-probabilistic and intentional. The type of sampling used was non-probabilistic and intentional.

For the descriptive comparative study of the variables, the sample used was 190 nursing students, where 90 participants belong to the first year of studies (I and II cycle) and 100 participants belong to the fifth year of studies (IX and X cycle) of the University under study. Among the Inclusion criteria, it was considered that the students were enrolled in the nursing career and that they were currently studying the nursing career. The exclusion criteria included: students with irregular attendance, students in free student status and students who did not agree to participate in the research.

Data collection techniques and instruments

The first instrument used was the Self-Efficacy Scale by [20], composed of 10 items, with Likert-type response formats in 4 ranges: 1 = Never, 2 = Seldom, 3 = Many times, 4 = Always. After adding up the scores, the highest value will reflect the highest level of self-efficacy and the lowest score will demonstrate a low level of self-efficacy. The maximum value that can be obtained is 40 points, while the minimum score corresponds to 10 points.

The choice of this instrument is based on its application in student populations from different contexts, as has been demonstrated in multiple investigations, whose objectives were aimed at assessing the level of self-efficacy perceived by young people where accurate results have been obtained that have led to generate intervention proposals. [21, 22] demonstrated criterion validity, in research whose sample was 430 students of diversified studies at the University of Berlin. There they obtained a satisfactory reliability by means of Cronbach's Alpha of 0.84, and for validity they obtained a negative correlation between self-efficacy and depression (r= -.42) and anxiety (r= -.43). as for the positive correlation between self-efficacy and optimism (r=.57). These facts reinforce once again the self-concept theory given by Albert Bandura.

Likewise, [23] investigated the psychometric characteristics of the general self-efficacy instrument in a sample of students and determined, as a result, that the items can be explained in relation to a single factor, in which the factor loadings exceed the determined limit (≥ .3) and in the reliability by internal consistency a 0.75, there is reliability, using the Alpha coefficient. Thus, several investigations that have addressed the self-efficacy construct use the scale, making evident the adaptability and contextualization in young students [2, 15, 16, 19, 23].

The results showed excellent internal consistency, good discrimination indexes for each of the items, high factor loadings and convergent and discriminant validity with respect to the variable of well-being and negative emotions. They then concluded that the data fit the theoretical model and, thus, obtained a useful instrument for health professionals. Consequently, the self-efficacy scale has proven validity and reliability for use in research.

The Vocational Maturity instrument belonged to the original author [11], initially such instrument had sixty items organized in five dimensions: Planning, Exploration,

Information, Decision Making and Realistic Orientation. The choice of this questionnaire is coherent with the characteristics of the sample, whose contextualization is like the Peruvian reality demonstrated by multiple investigations, oriented to know the Vocational Maturity of young people. These presented results that propitiated an accurate decision making in the choice of their professions; for example, Research such as [5, 10, 14, 24-26], among others.

Subsequently, [2, 3], a university teacher, adapted the questionnaire to evaluate nursing students and demonstrated the validation by expert judgment consistent with the specialty and expertise in the science of education and reliability through the Cronbach's alpha statistic, as she obtained as a result a value of 0.864. Thus, it indicated that the instrument is reliable, which was established with 30 items on a Likert scale. The instrument presents five response scales and three levels of measurement: high level [141-150 points], medium level: [120-140 points] and low level of Vocational Maturity: [30-119 points]. It has Aiken's V as coefficient to evaluate the pertinence, relevance, and clarity of the items with respect to a content domain based on the assessments of several judges or experts. Cronbach's Alpha coefficient is an internal consistency model where the highest theoretical value of Alpha is 1, and the value resulting from the research pilot corresponds to 0.915, from which it is interpreted that the instrument is highly reliable. Therefore, the instrument used has the necessary validity and reliability for the research.

A limitation of the research, regarding the collection of the data was that it was carried out virtually and with technological support, due to the situation we were going through due to the Covid-19 Pandemic. However, it was previously coordinated with the School Principal and with the students and this was not an obstacle.

Results

Descriptive results

Table 1 shows that the asymmetry coefficient (AS) in the realistic orientation of vocational maturity variable is greater than 0. The data present a positive asymmetry and there is more concentration of its values to the left of the mean. On the other hand, the value is lower than 0 in the vocational maturity variables, in its dimensions and in the self-efficacy variable. This fact means that most of the data found are not uniformly distributed according to the mean but are dispersed. Likewise, it is observed that the kurtosis coefficient (KU) is less than 0 in all the components of the variables under study except in the realistic orientation dimension, showing a platykurtic distribution.

Table 1

Descriptive analysis of variables and their dimensions

Variable	mean	median	mode	DS	AS	KU
Vocational maturity	129,81	137,00	143,00	13,89	-0,25	-1,64
planning	25,19	25,00	28,00	2,71	-0,18	-0,99
exploration	26,14	27,00	24,00	2,71	-0,12	-1,37
information	25,53	26,00	29,00	3,70	-0,34	-1,21
decision making	26,26	27,00	30,00	3,09	-0,31	-1,13
realistic orientation	26,68	28,00	30,00	3,72	1,33	9,83
Self-efficacy	30,15	36,00	40,00	9,49	-0,20	-1,77

Source: Database

Inferential statistical analysis

Following, according to the sequence of the formulation of the hypotheses, we show first the correlational results of the variables self-efficacy and vocational maturity

and then the comparative results. For which the Kolmogorov-Smirnov (K-S) test was used, proceeding to the normality analysis.

Table 2 shows that since the values are p<0.05, the data do not have a normal distribution, except for academic motivation in the 1-year group (p>0.05), which does have a normal distribution.

Table 2

Kolmogórov-Smirnov normality test of variables and their dimensions

Variable		Total	Primer año	Quinto año
		p	p	p
Vocational maturity		0,000	0,000	0,001
planning		0,000	0,001	0,000
exploration		0,000	0,000	0,000
information		0,000	0,003	0,000
decision making		0,000	0,000	0,000
realistic orientation		0,000	0,000	0,000
Self-efficacy		0,000	0,002	0,000

Source: Database

Correlational analysis

Table 3 shows the moderate positive correlation between vocational maturity and self-efficacy.

As p<0.05 (p=0.000), H0 is rejected. Therefore, there is a moderate positive correlation (r=0.719) between self-efficacy and vocational maturity in nursing students at a private university in Lima. Similarly, there is a moderate positive correlation between academic self-efficacy and the components of vocational maturity: academic self-efficacy and the planning factor (r=0.650), self-efficacy and the exploration factor (r=0.747), between self-efficacy and the information factor (r=0.718), between self-efficacy and the decision-making factor (r=0.712), and between self-efficacy and the realistic orientation factor (r=0.710).

Table 3

Spearman correlation between self-efficacy and vocational maturity; and self-efficacy and vocational maturity dimensions.

Self-efficacy	Vocational maturity	planning	exploration	information	decision making	realistic orientation
Correlation coefficient	,719	,650	,747	,718	,712	,710
Sig. (bilateral)	,000	,000	,000	,000	,000	,000
N	190	190	190	190	190	190

Source: Database

Comparative analysis

Table 4 shows the statistically significant differences in self-efficacy in first year and fifth-year nursing students.

As p<0.05 (p=0.000), H0 is rejected. Therefore, there are statistically significant differences in self-efficacy in first year and fifth-year nursing students

Table 4

Comparisons of self-efficacy in first year and fifth-year nursing students at a private university in Lima.

	Average range		U	z	p*
	first-year	fifth year			
Self-efficacy	45,50	140,50	,000	-12,032	,000

*Mann Whitney U test

Source: Database

Table 5 shows the statistically significant differences in vocational maturity and its dimensions. As p<0.05 (p=0.000), H0 is rejected. Therefore, there are statistically significant differences in vocational maturity and its dimensions in first- and fifth-year nursing students.

Table 5

Comparisons of vocational maturity and its dimensions in first year and fifth-year nursing students.

	Average range		U	z	p*
	first-year	fifth year			
Vocational maturity	46,54	139,56	94,000	-11,661	,000
planning	51,76	134,87	563,500	-10,465	,000
exploration	46,13	139,94	56,500	-11,849	,000
information	47,20	138,97	153,000	-11,564	,000
decision making	47,71	138,51	199,000	-11,497	,000
realistic orientation	48,98	137,37	313,500	-11,276	,000

*Prueba de U Mann Whitney

Source: Database

As can be seen in the tables, the comparative and correlational descriptive results are educational variables that allow for a more complex view of the problematic reality. The following is a discussion of the results described.

Discussion

In this study, it has been possible to determine that there is a moderate positive relationship between academic self-efficacy and vocational maturity in the study sample. This coincides with the studies of [12, 25, 27]. These authors corroborate that, while students perceive a greater sense of self-efficacy, understood as an individual's ability to succeed in specific situations, their level of vocational maturity also increases. Similarly, in the case of the relationships between self-efficacy and the factors of vocational maturity (planning, exploration, information, decision making and realistic orientation), it is evident that there is a moderate positive relationship between the variable self-efficacy and the five dimensions of vocational maturity in nursing students. This means that, if a student is more self-efficient, he/she will also be more

predisposed to planning, to explore new alternatives in such a way that he/she knows how to make decisions and knows how to orient him/herself to the diverse situations that may arise. In this way, their vocational maturity will be demonstrated [12, 25, 27, 28].

In this sense, it is relevant when various authors point out that self-efficacy in students is considered a main mediator and associate that the perception of self-efficacy is more important and decisive than one's own interests. This fact is put when individuals make decisions when choosing their profession [1, 6, 29, 30]. In this regard, Bandura's basic theory is significant in that it supports the idea that self-efficacy is conceived as an integration of perceptions that a person has about his or her own capabilities, which makes him or her feel confident and induces him or her to strive to achieve his or her goals. In this way, the person will intervene positively in strengthening his or her vocation, seeking strategies, developing new activities, and giving him or her greater drive and will ([28, 29, 31].

When comparing the level of self-efficacy in first- and fifth-year nursing students at a private university in Lima, the descriptive comparative analysis shows the existence of statistically significant differences in self-efficacy between the samples referred to. This fact shows that students in the first year present less confidence in their abilities oriented to academic tasks compared to students studying in the fifth year, who demonstrate a higher level of self-efficacy. To understand this result, the following studies are analyzed: According to [6, 16], in the early stages of study, students are more sensitive to fluctuations in affective states and attention. Students are aware of their successes or failures and may underestimate their level of efficacy and feel frustrated at the slightest error. However, as time goes by, previous experiences, vicarious experiences, feedback, among other mechanisms, give them a greater sense of security in their actions [18].

Likewise, the results are comparable with the studies of [24], who found an average level of self-efficacy in first cycle nursing students; and thus, agrees that self-efficacy is the belief that the student has when he/she feels capable of facing the challenges that the nursing career brings with it. However, this does not determine that there is insecurity on the part of these subjects at the beginning of the training process.

[5] concluded that there is a preponderance of moderate to high self-efficacy, being moderate in the first years and high in the last years. These results are like those of the present research. This fact shows, once again, the importance of self-efficacy both in the individuality of the young university student and during his or her professional career.

The results of [32] also count, who, in their doctoral study on perceived self-efficacy in 217 nursing students in final clinical practice period, presented a high level of self-efficacy, which is very similar to what was found in the present study. This, again, reiterates that the longer the stay in the professional academic life, the greater the sense of self-efficacy. Likewise, [33] obtained a high level of self-efficacy in university students in the last cycles of nursing studies. This result is relevant considering that students would have presented a significant level of stress associated with their responsibilities in the last year. These responsibilities are usually of greater rigor because they are assigned hospital functions of direct patient care. This would be implying a level of insecurity and insecurity in the performance of their duties.

Undoubtedly, as explained by [24], academic self-efficacy is a process that is built from experiences, social persuasions, physiological states, good teaching support, family, society, and extra-curricular activities. In this way, skills, abilities, and capacities that the student develops throughout the academic cycles are deployed. In summary, the results reflect that there is a high average number of students in the final cycles of the course with a high level of self-efficacy, with a small number of students who still do not acquire the necessary confidence or the perception of recognizing themselves as future nursing professionals. This is worrisome, because this profession is clearly a service profession, whose main objective is to care for the

patient as a person who requires comprehensive and specialized care. This implies the attention of their basic needs, which will be possible from a competent role that accredits and guarantees competencies and skills of the nursing professional. When comparing the components of vocational maturity in first- and fifth-year nursing students, it is observed, from the comparative descriptive analysis, that there are statistically significant differences in vocational maturity. This means that students in the first-year present less vocational abilities compared to those in the fifth year of the profession. To understand this result, the following previous work that will be described below should be analyzed.

[21, 34] explained that students in their first year of study enter with significant career concerns. This includes their assessments regarding occupational aspirations at this early stage; for this is an important developmental task during adolescence that, as it progresses in relation to academic sojourn, also matures in relation to vocation. In turn, [14]mentions that a large part of Peruvian students enters a certain university and abandon their studies during the first two cycles of their career. This would be a main factor linked to vocational uncertainty that causes university dropout.

[30]explained attrition in the nursing career in five universities in Peru, revealing two determining aspects in the results: the vocational factor and early age. These authors emphasize that students, at the beginning of the career, who have an early age, would be presenting weak decision making. These conclusions are like those of [16], who evidenced that the highest concentration of dropout is evidenced in the first cycles of studies, since it is a stage in which the adolescent is reluctant to assume a role that inserts him/her in the educational system. This result would be linked to the factors of vocational orientation and maturity.

[14] mentions that there are no significant differences in vocational maturity between students in 4th year of E.S.O of approximately 15 years of age, with students in 1st year of Bachillerato of 19 years of age. This could be explained by the fact that Spain has a comprehensive educational system with common subjects, but also electives chosen by the students. Students would be guided from a very young age by tutors to recognize their vocational aspirations and interests, which would be preparing them for the world of work and adult academic life.

Super [14] argued that individuals aged 15 to 17 are in a "tentative" stage, characterized by the satisfaction of the first needs related to a priori professional interests. However, upon reaching 18 to 21 years of age, young people enter another difficult transition stage, in which they become more coherent with reality, as they realize the function of their future profession and, in this way, the young person begins to appreciate and identify with the profession he or she has chosen. Between the ages of 22 and 24, they enter a stage of rehearsal in the professional field. These are moments in which the student has a first experiential and emotional contact with the definitive professional practices in which the possibility of strengthening his vocation may arise or he may be influenced by external demotivating factors that lead to frustration. However, it is observed in the results of this research that the longer the cycle the student studies, the greater the capacity for vocational maturation. [14, 16, 33-35]

Conclusion

The higher the level of academic self-efficacy of nursing students in a private university in Lima, the higher the vocational maturity. Thus, the ability to feel confident to perform academically presents a close positive connection that favorably boosts the student's vocational development, which shows that self-efficacy is a predictive factor in the evolution of the individual's vocation.

The components of vocational maturity: planning, exploration, information, decision making, and realistic orientation have a moderate positive relationship with academic self-efficacy in nursing students at a private university in Lima. Therefore,

the self-perception of feeling confident will contribute to an adequate maturity to appreciate the chosen profession without fear of making mistakes during studies.

Fifth-year nursing students at a private university in Lima have a higher level of self-efficacy and vocational maturity than first-year students.

It is recommended to establish pedagogical intervention programs of orientation for university students in the first cycles of studies that provide them with strategies for career planning and exploration so that they obtain a more real knowledge of the position and function of the profession in society. In addition, these programs should stimulate interest in vocational tasks; guide appropriate decision making and enable them to specify career objectives. At the same time, they should encourage the experiential learning required by the nursing career from the beginning to the last cycles of studies, aimed at strengthening the capacity for self-efficacy so that students can confidently achieve their academic and professional objectives, and this will help them to realize their life project.

Finally, it would be pertinent to generate studies that incorporate teacher accompaniment as a category of development of pedagogical intervention in the continuous strengthening of the vocational process in health science students. In this way, the university teaching factor will be dynamized as an axis resource in the motivational, self-efficacy and vocational consolidation processes, during the time required for the professional career.

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