

ORIGINAL

Motivational profiles of nursing students in Morocco: a descriptive study

Perfiles motivacionales de los estudiantes de enfermería en Marruecos: un estudio descriptivo

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Abstract

Purpose: Motivation is considered to be an essential component that generates the will to persevere and engage in learning activities. This study aims to identify the motivational profiles of nursing students and the associated factors.

Methods: This is a cross-sectional study conducted in 2022 at the Higher Institute of Nursing Professions and Health Technics in Ouarzazate in the south-east Morocco. The target population for this study was all students (N =242). Data were collected using an anonymous self-administered questionnaire on 3 main sections: socio-demographic data, the scale of Motivation in Education-University Studies, and reasons for choosing the nursing profession.

Findings: The response rate was 79.75%, with a female predominance of 78.8%. When examining the motivational profiles of the students, extrinsic motivation came first, followed by intrinsic motivation. The average motivation differs from semester to semester and tends to a low score around the 6th semester. Students' reasons for choosing a nursing career have been found to be related to their motivation to learn.

Conclusion: The analysis of motivation from the perspective of self-determination theory has allowed us to understand the nature of student motivation; however, further studies are needed to further investigate the issue of motivation and the factors that influence it.

Implications for nursing practice: In order to maximize professional performance, institutions and nurse educators must take into account the significance of motivation as the primary driving force behind nurse education.

Key words: Learning motivation, Nursing student, Self-determination theory, motivational profile.

Resumen

Propósito: La motivación se considera un componente esencial que genera la voluntad de perseverar y participar en actividades de aprendizaje. Este estudio tiene como objetivo identificar los perfiles motivacionales de los estudiantes de enfermería y los factores asociados.

Métodos: Este es un estudio transversal realizado en 2022 en el Instituto Superior de Profesiones de Enfermería y Técnicas de Salud en Ouarzazate, en el sureste de Marruecos. La población objetivo para este estudio fueron todos los estudiantes (n=242). Los datos se recopilaron mediante un cuestionario anónimo autoadministrado que constaba de tres secciones principales: datos sociodemográficos, la escala de Motivación en Educación-Estudios Universitarios y las razones para elegir la profesión de enfermería.

Hallazgos: La tasa de respuesta fue del 79.75%, con una predominancia de mujeres del 78.8%. Al examinar los perfiles motivacionales de los estudiantes, la motivación extrínseca fue la primera, seguida de la motivación intrínseca. La motivación promedio difiere de un semestre a otro y tiende a un puntaje bajo alrededor del sexto semestre. Se encontró que las razones de los estudiantes para elegir una carrera en enfermería están relacionadas con su motivación para aprender.

Conclusión: El análisis de la motivación desde la perspectiva de la teoría de la autodeterminación nos ha permitido comprender la naturaleza de la motivación de los estudiantes; sin embargo, se necesitan más estudios para investigar más a fondo el tema de la motivación y los factores que la influyen.

Implicaciones para la práctica de enfermería: Para maximizar el rendimiento profesional, las instituciones y los educadores de enfermería deben tener en cuenta la importancia de la motivación como la principal fuerza impulsora detrás de la educación en enfermería.

Palabras clave: Motivación para el aprendizaje, Estudiante de enfermería, Teoría de la autodeterminación, Perfil motivacional.

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Introduction

The issue of motivation for achievement in the classroom is a critical issue in today's society, not only for young people in school, but also for adults who need to improve their skills throughout their lives, as well as for educators, parents and employers^{1,2}. According to educational psychology, learning processes can be mapped out along three dimensions: cognitive (what to learn), affective or motivational (why to learn), and metacognitive (how to learn)³. While there are many aspects that influence students' learning experiences, motivation has emerged as a key predictor of students performance and wellbeing⁴.

A motivated person develops a sense of pride and belonging to his or her field and tries to add value to it. Motivation is not only about happiness and pleasure at work, it is also about productivity and wealth creation⁵. On the other hand, when an individual is unmotivated, he does not act, or he acts without intention and in a passive way, he just follows the movement. Amotivation is the sensation that one cannot accomplish their goals because they believe they lack the required abilities or do not value the activity or the outcome of it⁶.

Many universities, including those that train people for careers in healthcare, are concerned about the serious issue of students' lack of motivation for higher education⁷. Due to their involvement in a very specific training program that prioritizes human life, nursing students need to be motivated⁸. When properly prepared in a motivating and well-organized learning environment, a student in the healthcare sector can demonstrate appropriate ethical and professional behaviors⁹⁻¹¹.

The study of motivational profiles is based on the widely held belief that individuals' motivational types matter more than their level of motivation. Deci and Ryan (1985) introduced the self-determination theory, a significant motivational framework widely applied today. This theory of motivation, in contrast to the common view of motivation as a unitary concept that varies only in amount, postulates qualitatively diverse types of motivation that have varying effects on educational outcomes. The theory suggests that behavior can be classified into three categories: intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic motivation refers to participating in an activity purely for the pleasure and satisfaction it brings (Deci & Ryan, 1985). Conversely, extrinsic motivation is prompted by external factors, where engagement is driven by outside rewards. Amotivation (AM) indicates a lack of intent in pursuing an activity, indicating a lack of interest or consideration for its significance or outcome (Deci & Ryan, 1985). Self-determination theory has gained particular attention among theories of motivation and has produced

evidence in many domains, including psychology, education, and health¹²⁻¹⁵. This approach suggests that behavior can be viewed as intrinsically motivated, externally motivated, or amotivated. This theoretical position has been the subject of much research in recent years and appears to be very relevant to the education sector¹⁶.

In the Moroccan context, the working conditions, the inadequacy of legal protection for the nursing profession, and many other factors, may make this profession less attractive to many prospective students. In the classroom, a number of behaviours occur among nursing students, such as absenteeism, a lack of engagement in various theoretical, practical, and clinical learning activities, and dropout by some students. These behaviours can be explained, among other things, by the low motivation of students towards learning, which affects their performance and their attachment to this profession. The consequences of a sustained lack of motivation among nursing professionals can be far-reaching. Gradually, we may witness a significant exodus of talent from the nursing field. This migration of skilled individuals may stem from the frustration of working in an environment that doesn't nurture their passion or support their professional growth. As these dedicated professionals seek more conducive work environments, it's not uncommon for them to explore opportunities in other countries. This trend could have profound implications for healthcare systems worldwide, potentially leading to shortages of experienced and qualified nursing staff in regions grappling with their own healthcare challenges.

Understanding motivation in nursing students is crucial for tailoring education and support to their specific needs and aspirations. This knowledge empowers educators to employ teaching strategies that resonate with students' motivational orientations, ultimately leading to improved learning outcomes and higher retention rates. Additionally, recognizing diverse motivational profiles allows for personalized interventions, fostering a more inclusive and supportive learning environment. By aligning curriculum design and resources with students' motivations, educational institutions can optimize program development and resource allocation, ultimately contributing to a more engaged, satisfied, and successful nursing student body poised for a thriving professional career.

In this context, the purpose of this study is to determine the motivational profiles of nursing students and examine the associations between motivation profile and gender, year of study, and reason for nursing career selection.

Methods

Study design

This is a descriptive cross-sectional study conducted at the higher institute of nursing professions and health techniques, in the southeast of Morocco. Data was collected from April to May 2022.

Participants

Our study was conducted among nursing students at the higher institute of nursing professions and health techniques, which is one of the higher education institutions not affiliated with the university. The institute provides preparation and awarding of national diplomas organized into three study cycles in the fields of Nursing Professions and Health Techniques (Bachelor's Degree Cycle, Master's Degree Cycle, and Doctorate Cycle). We employed a census sampling technique based on the selection of all students enrolled in the professional bachelor's degree cycle's second, fourth, and sixth semesters that were open during the study period (N = 242).

Measurement

Data was collected by means of a self-administered questionnaire composed of three main sections. The first section includes sociodemographic information such as gender, age, and year of study. The second section is the Scale of Motivation in Education-University Studies (EME-U28), developed and validated by Vallerand et al. in 1989¹⁷, based on self-determination motivation theory. The instrument allows for the differentiation of the various motivational types based on 28 items grouped into seven subscales that correspond to the seven motivational categories: amotivation, extrinsic motivation by external regulation, introjected extrinsic motivation, extrinsic motivation by identification, intrinsic motivation to know, intrinsic motivation to accomplish, and intrinsic motivation to experience stimulation. For each of the 28 items on the instrument, the student was asked to indicate, on a 7-point Likert scale, the extent to which the proposed statement corresponds to a reason for pursuing his studies at the nursing institute, ranging from 1 (does not match at all) to 7 (matches very strongly). A student's average score on one of the seven types of

motivation is the average of the four items that make up the subscale. The scale's general reliability was high (Cronbach α = .96). The sub-scale evaluating extrinsic motivation by external regulation provided the lowest reliability for the scale in this study (Cronbach α = .75); whereas the highest value of Cronbach's alpha was recorded on the sub-scale measuring extrinsic motivation by identification and introjected extrinsic motivation (Cronbach α = .89). **Table I** shows values of Cronbach's alpha for all subscales. The third section of the questionnaire is based on literature reviews and asks respondents to give their reasons for choosing the nursing profession^{18,19}.

To evaluate the comprehensibility and clarity of the questionnaire, we conducted a pre-test among 34 students from another nursing institute. The content validity of the tool was assessed by giving it to three experts from the field of nursing.

Statistical methods

Following the data collection via the questionnaire, a data base was created using an Excel table, which was then subjected to a statistical analysis using the program SPSS version 22. Quantitative variables were expressed as mean \pm standard deviation. Qualitative variables are expressed as frequencies and percentages. For the correlation between variables, the ANOVA test was applied. The statistical significance level was set at $P < 0.05$.

Ethics statement

Prior to conducting the study, it was approved by the higher institute of nursing professions and health techniques, and the administrative permission was obtained. Before gathering data, the following ethical guidelines were respected and disclosed to the respondents: (a) explaining the study's purpose to the students who took part in the survey; (b) maintaining participants' anonymity; (c) obtaining their consent, and (d) guaranteeing the confidentiality of the data.

Table I: Cronbach's alpha values for EMS-U28 subscales.

	Number of items	Cronbach's alpha	General Cronbach's alpha of the scale
Intrinsic Motivation to know	4	0,87	0,96
Intrinsic Motivation to accomplish	4	0,85	
Intrinsic Motivation to experience Stimulation	4	0,85	
Extrinsic motivation by identification	4	0,89	
Introjected extrinsic motivation	4	0,89	
Extrinsic motivation by external Regulation	4	0,75	
Amotivation	4	0,80	

Results

Out of 242 targeted students, 193 responded to the survey, making the response rate 79.75%. The average participant age was 19.79 +/- 1.33 years, and 78.8% of the participants were female. 133 students are pursuing training to become general nurses, 29% study to become nurses in anesthesia and intensive care, and 39% to become emergency and intensive care nurses. In terms of study level, there are 70 (36,30%) students in the first year., 72 (37,30%) in the second year, and 51 (26,40%) students in the third year. **Table II.**

The purpose of the present study is to identify the motivational profiles of nursing students and examine if students with various motivational profiles show variations according to their sociodemographic characteristics and their reason for choosing nursing careers. Average scores for the various types of motivation are shown in **figure 1.**

Figure 1: Average scores for the various types of motivation.

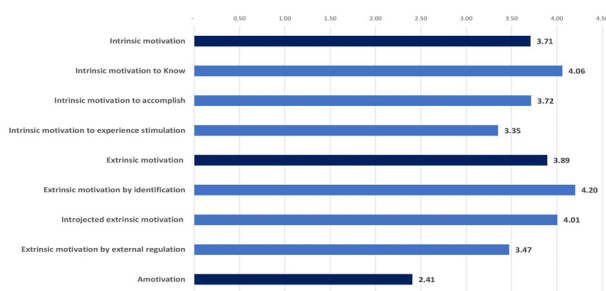
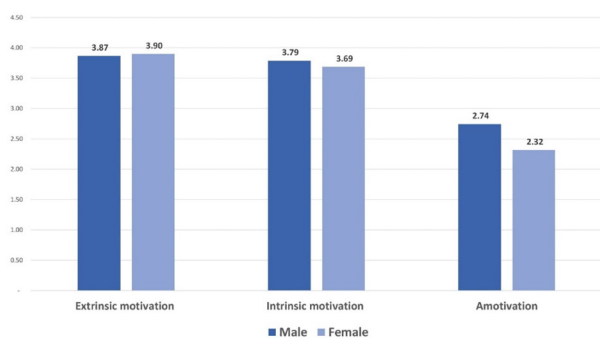


Figure 2: Types of motivation among students according to gender.



The assessment of motivation using the motivation scale revealed a predominance of extrinsic motivation (3.89), of which the subtype “Extrinsic motivation by identification” had the highest mean (4.20), followed by intrinsic motivation with a mean score of (3.71), with the component “intrinsic motivation to know” having the highest mean score (4.06).

When it comes to the average of several types of motivation among students according to gender. The **figure 2** demonstrates the dominance of extrinsic motivation in both sexes, with females being more extrinsically and less intrinsically motivated than males. In terms of amotivation, male participants are less motivated than female participants.

By comparing the motivation of students between semesters, we notice that the more they progress in the training, the more they tend towards less intrinsic and extrinsic motivational scores, and towards higher scores of amotivation **figure 3.** The intrinsic and extrinsic motivation differences throughout the years of study are statistically significant with P=0.00 and P = 0.001 respectively.

When asked if their decision to pursue a career in nursing was a personal or not (three reasons are considered in this study), the majority of students (68.4%) have decided to enroll in this training by their personal decision. Some students chose this profession based on recommendations from family or friends (24.9%), and only 4.1% have chosen the nursing profession because

Figure 3: Student's motivation scores according to their year of study.

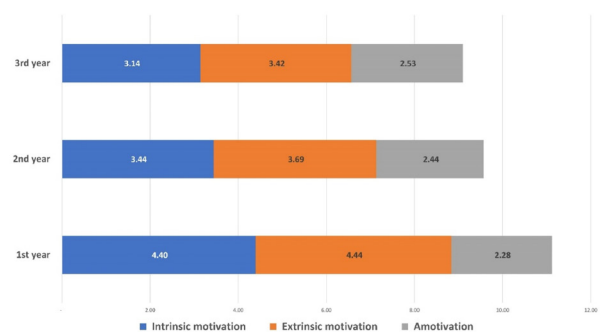


Table II: Population characteristics.

Characteristic		N	Percentage %
Gender	M	41	21,20
	F	152	78,80
Age	(mean±SD)	19.79 ± 1.33 years	
Speciality	General nurse	133	68,90
	Emergency and critical care nurse	31	16,10
	Nurse in anesthesia and intensive care	29	15,00
Year of study	First year	70	36,30
	Second year	72	37,30
	Third year	51	26,40

Table III: Distribution of student motivation types by their reasons for choosing a nursing career.

	Personal choice	Recommendations of family and friends	Having a relative working in healthcare field	F	P value
Intrinsic motivation	3.91	3.21	3.9	2,21	0.042
Extrinsic motivation	4.05	3.49	4.26	3,23	0.113
Amotivation	2.3	2.44	2.69	0,35	0.701

of having a family member working in the field. Students who chose nursing as a career out of their own free will are more intrinsically motivated and less “amotivated.” On the other hand, those who made this career choice based on the recommendations of family and friends are more extrinsically motivated. Students who chose this profession because they have a family member working in the field have the highest amotivation mean score. The difference in intrinsic motivation scores according to the students' reasons for choosing the nursing profession is statistically significant with $P = 0.042$. **Table III.**

Discussion

Our results revealed that extrinsic motivation was the most dominant type among participants ($M=3.89$), students engage in educational activities even if they do not enjoy them and they may be guided by external factors. At the extrinsic motivation level, intrinsic motivation by Identified Regulation is the component having the highest score. That is, students participate in an activity because it is important to them, even if it is not necessarily interesting. In the second place, a significant portion of students are intrinsically motivated ($M=3.71$) of which intrinsic motivation to knowledge is the most representative. An intrinsically motivated student is one who engages in an activity because of the pleasure of discovering, trying, and learning new things. According to the self-determined perspective, autonomous motivation tends to produce better psychological health and more effective performance. It also leads to greater persistence that lasts over the long term²⁰.

When examining the motivational profile of students for each semester, the levels of intrinsic and extrinsic motivation decline and amotivation scores increase as the semesters progress. This could be due to factors related to the pedagogical and organisational aspects of the training and to other factors related to the students themselves and to their perceptions that change as they progress through the training. The individual will, in fact, develop a highly self-determined motivational profile if he believes that his failures and successes are related to controllable causes. On the other hand, his perception of autonomy will be reinforced by attributing his successes and failures to internal causes²¹. In terms of reasons for choosing the nursing profession, personal choice was reported as one of the primary reasons for choosing nursing as a career among students. Intrinsic motivation was significantly related to personal choice to join the nursing profession. A personal interest in health care

seemed to be an important motivation in choosing the nursing profession. This interest might be explained by the altruistic nature that emerges in the desire to assist others and to pursue a career in the field. It should also be noted that the post-pandemic context in which this study took place might have had an influence on the students' career choices.

Previous studies conducted among students from institutions with regulated access²² and medical students²³ reported that for the extrinsic motivation level, motivation by identified regulation had the highest score ($M = 5.52$) and for the intrinsic motivation level, intrinsic motivation to knowledge registered the highest score ($M = 5.32$). However, in contrast to our results, the study conducted among Moroccan medical students revealed that intrinsic motivation (5 ± 1.07) comes first, followed by extrinsic motivation (4.9 ± 1.29).

Our findings demonstrated a slight gender-based variance in motivation, with females exhibiting higher levels of extrinsic motivation. This aligns with the findings of a study conducted by H. Wu and colleagues in 2020²⁴. However, this result contrasts with the study by Kusurkar and colleagues, which suggested that females displayed greater intrinsic motivation than males in medical educational settings²⁵. Nonetheless, our results indicate that men tend to exhibit higher levels of amotivation compared to women. This incongruity could potentially be explained by the prevailing societal norms dictating the roles of men and women within the domain of healthcare professions and education. In North African region, there is a notable cultural inclination towards guiding female students towards careers perceived as stable, reliable, and promising in terms of rewards. Among these career options, nursing emerges as a particularly favored choice (Ait Ali et al., 2022).

In line with the results of the present research, a Swedish study found that the average motivation score varied significantly as the semester progressed and tended to be low by the 5th semester. Nevertheless, another study from France indicated a statistically significant variation between nursing students' levels of motivation according to their year of study, with the third-year class having the largest proportion of motivated students ($\chi^2 = 22.9476$; $p = 0.0109$)²⁷.

Similar to our findings, a study investigating motivational factors in medical education highlighted that external motivation displayed favorable connections with certain elements. This included gender, particularly being female,

and a natural inclination towards selecting medicine as a field of study. Conversely, internal motivation was found to be linked with the perception of familial encouragement and an individual's independent choice to pursue a career in medicine²⁸.

Motivation is essential to fostering professional development in all health care disciplines. The prevalence of extrinsic motivation, particularly among students influenced by familial or peer recommendations, underscores the need for educational institutions to foster a deeper sense of personal commitment and intrinsic drive in aspiring nurses. Recognizing gender-based differences in motivation emphasizes the importance of tailoring support strategies to address unique motivational needs. Additionally, the observed shift towards higher levels of amotivation as students progress in their studies suggests a potential need for interventions to sustain motivation over the course of their education. Moreover, understanding how different motivations correlate with reasons for entering the nursing profession highlights the importance of providing diverse avenues for career exploration and guidance. Ultimately, these insights can inform the development of more effective educational approaches and support systems to nurture a motivated, engaged, and resilient nursing workforce.

Understanding motivation in nursing students is crucial for tailoring education and support to their specific needs and aspirations. This knowledge empowers educators to employ teaching strategies that resonate with students' motivational orientations, ultimately leading to improved learning outcomes and higher retention rates. Additionally, recognizing diverse motivational profiles allows for personalized interventions, fostering a more inclusive and supportive learning environment. By aligning curriculum design and resources with students' motivations, educational institutions can optimize program development and resource allocation, ultimately contributing to a more engaged, satisfied, and successful nursing student body poised for a thriving professional career.

To our knowledge, this is the first research to empirically address an investigation around the motivation of nursing students in Morocco. However, some limitations apply to this study and should be considered. The concept of motivation is a multidimensional latent variable, as

such, the choice of a specific instrument to measure the targeted motivational dimension, as well as the timing of the assessment, can impact the results obtained. The adoption of a solely quantitative approach and the monocentric nature of this survey can also be considered limitations of our study. Therefore, generalizations of the results should be made cautiously. Additional research will be required to further the investigation into the motivation issue by introducing additional factors that can affect the degree of motivation among nursing students such as autonomy level facilitated by classroom instructors. Employing a longitudinal approach would provide insights into how motivations evolve as students advance through their respective programs, addressing motivational fluctuations over time.

Conclusion

The analysis of motivation as a research variable from the perspective of self-determination theory allowed us to understand the nature of students' motivation as well as some factors affecting this motivation. Given the international and national shortage of nursing staff, the retention of nursing students is recognized as a priority. In this context, it's critical for educators to understand why students choose to pursue studies as healthcare professionals as well as the nature of their learning motivation. This allows educators to implement effective strategies to support students' intrinsic motivation, prevent academic disengagement, reduce attrition, and improve learners' academic success.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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Supplementary Materials

Supplement 1. The Scale of Motivation in Education-University Studies (EME-U28)

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