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Original Article

The Relationship between Motivational Persistence and Achievement Goal Orientations of Vocational School of Health Services Students

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Abstract

Introduction: One of the factors determining the quality of health service delivery is well-trained and qualified health personnel. In addition to receiving a quality education to train qualified health personnel, the importance of the learner being ready and motivated to learn is obvious. The purpose of this study is to examine the relationship between motivational persistence and achievement goal orientations of Vocational School of Health Services students. **Materials and Methods:** In this research, which is structured in relational comparison type besides its descriptive feature, we studied with 278 students studying at Health Services Vocational School. The data were obtained with "Motivational Persistency" and "Achievement Goal Orientation" scales. In the analysis of the data, correlation and path analysis were used as well as descriptive statistics. **Results:** When achievement goal orientation and motivational persistency are examined with all subdimensions, the motivation to follow long-term goals was positively significant with the learning approach. The motivation to follow the current goals was positively significant with the motivation to learning approach achievement and to follow long-term goals while was negative with motivation to approach the performance. The motivation to repeat unattainable goals has been found to be positively significant with the motivation to learn approach, learn avoidance achievement orientations and long-term goals, and to follow existing goals. **Conclusion:** The results of the research showed that students' achievement learning approach and motivational persistency were prone to iteration subdimensions of unattainable goals. Although the study parallels with the literature, it is important to provide a better understanding of how the achievement goal orientation of the students of the Vocational School of Health Services affects the processes of motivational persistency.

Keywords: Achievement goal orientation, health education, motivational persistence

Introduction

Many disciplines work together in health service delivery. Health technicians working in the delivery of health-care services are defined as trained health personnel with higher technical knowledge and professional skills than intermediate or auxiliary personnel in other professional groups. Qualified workforce defines well-educated and trained people in line with their skills, interests, and desires, and it is known that the quality of this power is much more important than its numerical amount.[1] Quality of service in health-care delivery is one of the most important indicators of the development levels of countries, and the knowledge, attitude, and skills of trained/qualified health personnel are among the most determining structures of service quality.

Vocational Schools of Health Services: they train qualified workforce, which constitutes the most important building block of this service, which has a direct impact on human life, and they meet a great workload in the field of health throughout the country. Vocational Schools in the Law of the Council of Higher Education are defined as "higher education institutions

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aiming to train qualified workforce for certain professions, providing 2-year education and training for two or three terms a year, giving associate degree (2-year degree)." As in many countries of the world, as a result of the diversity of health-care services that have become widespread in our country, rapidly changing medical technology and information systems, "new health professions" (medical laboratory technician, first and emergency aid, audiometry, medical imaging technician, etc.) have emerged and job and job descriptions have been made that determine their work.[2]

One of the most effective factors in increasing the quality of health-care service delivery is the quality of education received by health-care professionals who will work in different disciplines in health-care delivery. Many philosophers see education as the most effective tool that plays an important role in the realization of the correct and good society order they desire.[3] With a comprehensive education-learning design, it becomes more possible for people to be effective and productive. The international harmony of educational design can be made a comprehensive design by being in content that maintains the expectations of the sector and professional qualification and provides national standards. Students, who are educated in vocational schools of health services and will form the most important building block of this service, which has a direct impact on human life upon graduation, are expected to meet a large workload in the field of health across the country.

When it comes to an effective learning environment, the conditions in which students are more active and participatory in the education program applied are mentioned.[4] Students who are in active learning are considered to be students who have the ability to question, interpret, participate and know how to share.[5] In this respect, the motivation and achievement goal orientation of the trainees will affect learning positively.

Motivation has been much discussed and theorized in educational psychology. Motivation is one of the most important prerequisites for learning, and motivational persistence is the key to success. According to educational psychologists, motivational persistence is seen as a prerequisite for learning to take place.[6,7] It is defined as an indicator of an individual's ability to reach a certain goal or a level that can be considered successful.[8,9] This concept is determined by the intensity of a particular requirement in coordination with any physiological and emotional needs.[10] The intensity and order of importance of these requirements are relative. If these requirements are not met, an imbalanced situation occurs in the individual. The individual tries to reach a state of balance again by meeting these requirements with the help of motivational persistence, in other words, her/his perseverance. Therefore, motivational persistence can be considered as a self-regulation mechanism.[11]

Achievement goal orientations, on the other hand, do not only include the aim of pursuing the achievement tasks of the individual but also reflect a certain standard that people take as a criterion when evaluating their success in achieving a goal.[12] In the studies conducted, sub-dimensions of achievement goal orientations were defined as learning and performance orientation.[13,14] The orientation of learning is characterized as the internalization of knowledge by the individual and is based on a personal demand for gaining the dominance of knowledge. Performance orientation, however, is based on the purpose of fulfilling an individual's performance expectations or relatively exceeding their peers.[13,15] The theory of achievement goal orientations explains the goals of achievement by operationally determining the mechanism of a competency fiction, the learner's own performance standard. These standards can be precise (based on the task's own requirements), internal (based on one's past attainment or maximum potential attainment), or normative (based on the performance of others).[13,16]

Achievement orientation model has recently been considered as a 2 × 2 framework that includes the dimensions of learning approach, learning avoidance, performance approach, and performance avoidance.[16] Learning orientations can be expressed in both approach and avoidance dimensions. Learning-oriented goals point to all the elements of a positive orientation toward learning, while learning-avoidant goals point to some negative qualities. Performance-approach goals are seen as positive because interest in performance development is emerged. Performance-avoidance orientation has a negative connotation due to the presence of effective fear elements such as exam anxiety and the focus on avoiding inadequace compared to others.[13,16]

In addition to motivation and the aim of pursuing their duties, which are seen as a prerequisite for the realization of learning, achievement orientations, which reflect a certain standard that individuals take as a criterion when evaluating their success in achieving a goal, can be considered. In the Vocational School of Health Services programs that train qualified workforce for health services that have a direct impact on human life, studies were considered to be needed to determine the relationship between motivational persistency and achievement orientations of students. The aim of this research is to determine the motivational persistence levels and achievement goal orientations of the students of the Vocational School of Health Services, which trains health professionals in different disciplines, and to examine the relationships between them.

Materials and Methods

Participants

Research data were obtained from the program students of the First and Emergency Aid, Anesthesia, Electroneurophysiology, Medical Laboratory Techniques, and Medical Imaging Techniques of Çanakkale Onsekiz Mart University with the permission of the Vocational School of Health Services Directorate, dated February 18, 2020, and numbered 13073797-100-E.2000031353. Since participation in the research was carried out on the principle of volunteerism, data could not be obtained from all students of the vocational school. Data were obtained from 278 students who were

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studying at the school in the 2019–2020 academic year and volunteered to participate in the study. In this context, the sample of the research can be considered as a purposeful sample. Purposeful sampling is created on the basis of working with a part of the population, not all.[17] The distribution of the students participating in the study according to the programs and semesters is given in Table 1.

Data collection tools

In the study, data were obtained through two different measurement tools. These are:

Motivational Persistence Scale

The scale was developed by Constantin, Holman, and Hojbota and adapted into Turkish by Saricam *et al*.[11] The scale was developed for university students. The scale is a scale measuring 13 items under three dimensions (factors) (following long-term goals, following current goals, and repeating unachievable goals). Confirming factor analysis fit indexes of the scale, root-mean-square error of approximation (RMSEA) =0.058, comparative fit index (CFI) =0.85, goodness-of-fit index (GFI) =0.95, adjusted GFI = 0.92, and standardized root mean square (SRMR) =0.057. The Cronbach's alpha internal consistency coefficients of the scale were determined as 0.69 for the whole scale, 0.72, 0.70, and 0.71 for the subscales.

2 × 2 Achievement Goal Orientation Scale

The scale was developed to determine the achievement goal orientation of university students.[18] The scale is a tool that measures under four subdimensions of 26 items (learning approach, learning avoidance, performance approach, and performance avoidance). The Cronbach's alpha internal consistency coefficients of the scale are between 0.92 and 0.97.

Data analysis

The data were analyzed with IBM SPSS (İnternational Business machines statistical package of Social science), IBM Amos (İnternational Business machines Analysis of moment structures). The Central Limit Theorem suggests that if the sample is large enough (n = 30+), the sampling distribution of the means will be normally distributed regardless of the distribution of the variables, and the normal distribution violation will not cause a major problem.[19,20] In large samples, skewness does not deviate significantly from normal. Positive kurtosis begins to disappear in a sample size of more than 100 and negative kurtosis in a sample larger than 200.[20] In line with this information, it was decided to perform the analysis with parametric statistical techniques. The impact of students' achievement orientations on academic achievement and the impact of students' achievement orientations on academic achievement through motivational persistency tool variable were determined by path (path) analysis.

Table 1: Distribution of students participating in the study by programs and semesters

Program	Frequency, *n* (%)		
	1. Class	2. Class	Total
EMS	58 (35.4)	32 (28.1)	90 (32.4)
ENF	22 (13.4)	9 (7.9)	31 (11.2)
MLT	29 (17.7)	33 (28.9)	62 (22.3)
MIT	25 (15.2)	26 (22.8)	51 (18.3)
ANS	30 (18.3)	14 (12.3)	44 (15.8)
Total	164 (100)	114 (100)	278 (100)

EMS: First and emergency aid program, ENF: Electroneurophysiology program, MLT: Medical laboratory techniques program, MIT: Medical ımaging techniques program, ANS: Anesthesia program

Results

According to the programs and classes, 90 students from the first and emergency aid program, 31 from the electroneurophysiology program, 62 from the medical laboratory techniques program, 51 from the medical imaging techniques program, and 44 students from the anesthesia program responded to the scales applied for the purpose of examining the achievement goal orientation of the students. According to the responses of a total of 278 students, the achievement orientation of the students studying in different periods is given in Table 2 and their motivational persistency is given in Table 3.

In all programs, the least agreed items by students are as follows: "If necessary, I copy in order to get a good grade," "The most important reason I do my school work is not to fall into an embarrassing situation," "One of my most important goals is to look smarter than others," "It is very important for me to look more successful than my friends," and "It is very important to me to look more knowledgeable than my friends." The most common items are as follows: "Opportunities that help to develop my abilities and skills are very important to me," "I try to work more when I'm failing," "I believe mistakes are a natural part of learning," "I aim to continuously improve myself in terms of knowledge and skills," and "I try to do my learning activities as best as possible."

In the motivational determination scale, the item that 1st-grade students participated the least in all programs was "I often think about the jobs I gave up from working before," while the most common item was "I wouldn't think of breaking away from an important project just because others wanted it." The item that the 2nd-grade students agreed the least was "Even though the job is very difficult, I will continue to pursue the work that others have given up." The most they participated in was "I have enough strength to focus on daily work."

When achievement orientation and motivational persistency are examined with all subdimensions, learning-approach achievement orientation was positively significant with learning avoidance, pursuing long-term goals, pursuing current goals, and repeating unachievable goals. Learning-avoidance achievement orientation was positively significant with all subdimensions except pursuit of current goals. Performance-approach learning orientation was positively significant with learning avoidance and performance avoidance. Performance-avoidance learning orientation is

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Table 2: Student's success orientations according to the program and classes

Achievement Orientation Scale ıtems	Class	EMS		ENF		MLT		MIT		ANS	
		n	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)
I try to learn the subjects I will learn in the lessons in a wide and comprehensive way	1	58	4.22 (0.7)	22	3.86 (0.9)	29	3.62 (0.7)	25	3.76 (0.8)	30	3.73 (0.9)
	2	32	4 (0.8)	9	3.56 (1.1)	33	4.06 (1.0)	26	3.65 (0.8)	14	4.07 (0.7)
I try to work more when I'm failing	1	58	4.05 (0.9)	22	4.05 (1.0)	29	3.72 (0.7)	25	3.76 (0.9)	30	4.13 (0.9)
	2	32	4.19 (0.8)	9	4.22 (0.4)	33	3.91 (1.0)	26	3.73 (0.9)	14	4.43 (0.5)
The thought of forgetting what I've learned over time worries me	1	58	3.40 (1.2)	22	3.05 (1.3)	29	3.66 (1.3)	25	2.96 (1.1)	30	3.10 (1.3)
	2	32	3.69 (1.1)	9	3.89 (1.3)	33	3.73 (1.2)	26	3.04 (1.4)	14	3.71 (1.4)
Getting a high score in a test where others have low grades is an indicator of success	1	58	3.41 (1.8)	22	3.00 (1.2)	29	3.31 (1.1)	25	3.60 (1.2)	30	3.60 (1.1)
	2	32	3.44 (1.1)	9	2.56 (1.2)	33	3.42 (1.3)	26	3.38 (1.3)	14	3.07 (1.3)
I believe mistakes are a natural part of learning	1	58	4.26 (0.9)	22	4.50 (0.8)	29	4.41 (0.9)	25	4.24 (0.8)	30	4.40 (0.9)
	2	32	4.22 (0.6)	9	4.22 (0.8)	33	4.21 (0.9)	26	4.23 (1.1)	14	4.50 (1.1)
I think lessons that require less work are better	1	58	1.93 (0.9)	22	2.45 (1.1)	29	2.55 (1.1)	25	2.52 (1.2)	29	2.38 (1.0)
	2	32	2.38 (1.1)	9	2.56 (1.0)	33	2.24 (1.1)	26	2.42 (0.9)	14	1.86 (0.9)
Opportunities that help to develop my abilities and skills are very important to me	1	58	4.50 (0.6)	22	4.73 (0.5)	29	4.59 (0.7)	25	4.52 (0.8)	30	4.37 (0.8)
	2	32	4.44 (0.9)	9	5.00 (0.0)	33	4.48 (0.7)	26	4.27 (1.0)	14	4.21 (1.1)
The most important reason I do my school work is not to fall into an embarrassing situation	1	58	1.76 (0.9)	22	1.68 (1.0)	28	2.21 (1.4)	25	1.84 (0.9)	30	2.30 (1.4)
	2	32	2.25 (1.1)	9	1.22 (0.4)	33	2.12 (1.2)	26	1.69 (1.0)	14	1.79 (1.3)
When I answer a question in class, I worry about being funny	1	58	2.40 (1.2)	22	1.86 (1.2)	29	2.69 (1.3)	25	2.04 (1.1)	30	2.03 (1.0)
	2	32	2.06 (1.1)	9	2.00 (1.7)	32	2.56 (1.3)	26	2.15 (1.1)	14	1.79 (1.1)
I avoid not being able to do my learning activities correctly	1	58	3.29 (1.3)	22	3.27 (1.4)	29	3.34 (1.3)	25	3.60 (1.0)	30	3.17 (1.4)
	2	32	2.88 (1.3)	9	3.67 (1.4)	31	3.42 (1.1)	26	3.54 (1.4)	14	3.29 (1.5)
I aim to constantly improve myself in terms of knowledge and skills	1	58	4.10 (0.9)	22	4.05 (0.8)	29	4.07 (0.9)	25	3.96 (0.7)	30	4.13 (0.8)
	2	32	3.94 (0.9)	9	4.44 (1.0)	32	4.06 (0.9)	26	4.04 (0.9)	14	4.71 (0.5)
I try to do my learning activities as best as possible	1	58	4.31 (0.7)	22	4.32 (0.6)	29	4.31 (0.7)	25	4.08 (0.9)	30	4.20 (0.9)
	2	32	4.16 (0.8)	9	4.22 (1.2)	32	4.38 (0.8)	26	4.04 (1.0)	14	4.57 (0.6)
One of my most important goals is to look smarter than others	1	58	1.60 (0.8)	22	1.55 (0.7)	29	1.55 (0.8)	25	1.92 (1.0)	30	1.53 (0.8)
	2	32	1.69 (1.0)	9	1.78 (1.3)	32	1.94 (1.2)	26	1.50 (0.9)	14	2.14 (1.2)
Getting a high grade from the exam is the most important indicator of success	1	58	2.69 (1.2)	22	2.73 (1.3)	29	2.86 (1.3)	25	2.72 (1.2)	30	2.70 (1.4)
	2	32	2.72 (1.3)	9	1.78 (1.1)	31	3.16 (1.2)	26	2.50 (1.3)	14	2.57 (1.3)
The possibility of learning things wrong that I am going to learn worries me	1	58	3.67 (1.1)	22	3.27 (0.9)	29	3.34 (1.2)	25	3.12 (1.2)	30	3.17 (1.1)
	2	32	3.63 (1)	9	3.89 (1.5)	31	3.45 (1.2)	26	2.92 (1.3)	14	3.57 (1.2)
I avoid participating in learning activities that I think I will not be successful	1	58	2.50 (1.1)	22	2.59 (1.3)	29	2.66 (1.3)	25	2.60 (1.4)	30	2.47 (1.0)
	2	32	2.28 (1.0)	9	3.44 (1.4)	32	2.22 (1.2)	26	2.62 (1.3)	14	2.71 (1.5)
I believe I learned something even when I failed	1	58	3.60 (1.2)	22	3.41 (1.0)	29	3.52 (1.3)	25	3.44 (1.1)	30	3.87 (1.0)
	2	32	3.94 (0.9)	9	3.89 (1.2)	32	3.84 (1.1)	26	3.62 (1.2)	14	4.07 (0.9)
It is very important for me to look more successful than my friends	1	58	1.95 (1.2)	22	1.59 (0.7)	29	2.24 (1.3)	25	1.84 (1.0)	30	1.77 (1.0)
	2	32	1.97 (1.1)	9	2.11 (1.4)	32	1.88 (1.2)	26	1.58 (1.0)	14	2.36 (1.3)
I'm worried about the possibility of getting poor grades in class	1	58	2.79 (1.4)	22	2.27 (1.4)	29	3.07 (1.5)	25	2.24 (1.2)	30	2.23 (1.3)
	2	32	2.38 (1.2)	9	1.89 (1.3)	31	2.84 (1.4)	26	2.12 (1.2)	14	2.21 (1.6)
I take extreme care not to make mistakes in my learning activities	1	58	4.12 (0.7)	22	3.91 (0.9)	29	3.76 (1)	25	3.92 (0.9)	30	3.70 (1.0)
	2	32	3.75 (1.0)	9	4.11 (0.9)	32	4.13 (0.9)	26	3.65 (1.2)	14	4.29 (0.7)
It is important to me that other students in the class think I am successful	1	58	2.12 (1.1)	22	2.00 (1.1)	28	2.25 (1.2)	25	2.00 (1.2)	30	2.37 (1.3)
	2	32	2.13 (1.3)	9	2.11 (1.7)	31	2.65 (1.4)	26	1.73 (1.0)	14	2.64 (1.5)
I know very well what I have to do in order to be successful	1	58	3.74 (0.8)	22	3.73 (0.9)	27	3.19 (0.7)	25	3.44 (0.9)	30	3.77 (0.9)
	2	32	3.81 (0.7)	9	4.11 (0.6)	31	3.71 (0.9)	26	3.77 (1.0)	14	3.93 (1.1)
I am afraid of not learning the lessons properly	1	58	3.24 (1.2)	22	2.32 (1.0)	28	3.14 (1.1)	25	2.64 (1.1)	30	2.73 (1.3)
	2	32	2.97 (1.1)	9	3.56 (1.4)	31	3.13 (1.1)	26	2.38 (1.2)	14	2.93 (1.3)
If necessary, I copy in order to get a good grade	1	58	1.48 (0.6)	22	1.41 (0.8)	28	1.32 (0.5)	25	1.68 (0.7)	30	1.53 (0.9)
	2	32	1.53 (0.7)	9	1.56 (0.5)	32	1.28 (0.5)	26	1.50 (0.5)	14	1.29 (0.6)
I try to avoid appearing unsuccessful or incompetent to other students	1	58	2.55 (1.1)	22	2.05 (1.0)	28	2.86 (1.5)	25	2.32 (1.2)	30	2.20 (1.1)
	2	32	2.59 (1.2)	9	3.00 (1.1)	32	2.94 (1.3)	26	2.19 (1.3)	14	2.86 (1.6)
It is very important to me to look more knowledgeable than my friends	1	58	1.74 (1.0)	22	1.55 (0.9)	28	1.89 (1)	25	2.04 (1.2)	30	1.77 (1.0)
	2	32	1.81 (1.1)	7	2.29 (1.9)	31	1.94 (1.2)	26	1.62 (1.1)	14	2.07 (1.0)

EMS: First and emergency aid program, ENF: Electroneurophysiology program, MLT: Medical laboratory techniques program, MIT: Medical ımaging techniques program, ANS: Anesthesia program, SD: Standard deviation

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Table 3: Motivational persistency of the students according to their programs and classes

Motivational Persistency Scale items	Class	EMS		ENF		MLT		MIT		ANS	
		n	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)	*n*	Ort. (SD)
I often come up with new ideas on old problems or projects	1	58	3.02 (0.8)	22	3.41 (0.8)	27	3.41 (0.9)	25	2.96 (0.9)	30	3.03 (0.9)
	2	32	3.44 (1.0)	9	3.67 (1.1)	32	3.47 (0.8)	26	3.19 (1.2)	14	3.07 (1.1)
I stay motivated even during months of activities	1	58	3.48 (0.9)	22	3.32 (1.0)	27	3.41 (1.1)	25	3.00 (0.6)	30	3.47 (1.0)
	2	32	3.38 (1.0)	9	4.44 (0.7)	32	3.16 (1.1)	26	3.35 (1.1)	14	3.57 (0.9)
I have enough strength to focus on daily work	1	58	4.22 (0.9)	22	4.09 (0.9)	27	4.22 (0.6)	25	4.08 (0.6)	30	3.93 (0.8)
	2	32	4.09 (0.7)	9	4.56 (0.7)	32	3.84 (1.0)	26	4.15 (0.9)	14	4.29 (0.8)
From time to time I think of various ways to take advantage of the possibilities that I give up	1	58	3.66 (0.8)	22	3.91 (0.8)	27	3.81 (0.8)	25	3.48 (0.7)	30	3.70 (0.8)
	2	32	3.81 (0.6)	9	4.22 (0.4)	32	3.63 (0.9)	26	3.85 (0.7)	14	4.00 (0.8)
Long-term goals motivate me to overcome everyday challenges	1	58	4.16 (0.8)	22	4.18 (0.8)	28	3.93 (0.9)	25	4.08 (0.6)	30	4.00 (0.7)
	2	32	3.94 (1.0)	9	4.33 (0.9)	31	3.87 (0.8)	26	4.12 (1.0)	14	4.50 (0.8)
Once I decide to do something, I won't give up until I reach the goal like a bulldog	1	58	4.10 (0.8)	22	4.18 (0.8)	28	4.14 (0.8)	25	4.20 (1.0)	30	4.03 (0.9)
	2	32	3.88 (1.0)	9	4.11 (0.6)	32	4.13 (0.8)	26	4.27 (0.6)	14	4.29 (0.9)
I think about my goals that I had to give up, even though it doesn't matter anymore	1	58	3.43 (1.0)	22	3.50 (1.0)	28	3.43 (1.0)	25	3.16 (1.0)	30	3.37 (1.1)
	2	32	3.50 (1.0)	9	3.89 (0.9)	32	3.44 (1.0)	26	3.08 (1.1)	14	3.07 (1.5)
I seriously follow whether my important projects are successful or not	1	58	4.00 (0.8)	22	4.18 (0.8)	26	4.19 (0.7)	25	4.12 (0.7)	30	4.00 (0.7)
	2	32	4.03 (0.8)	9	4.11 (0.6)	32	4.13 (0.8)	26	4.04 (0.9)	14	4.64 (0.5)
Even though the job is very difficult, I will continue to pursue the work that others have given up	1	58	3.93 (0.8)	22	3.95 (1.0)	27	3.67 (1.0)	25	3.76 (0.9)	30	3.83 (0.8)
	2	32	3.72 (0.8)	9	3.56 (0.9)	32	3.84 (0.9)	25	3.76 (0.9)	14	4.29 (0.8)
I often think about the jobs I've given up working before	1	58	2.81 (0.9)	22	2.68 (0.9)	27	3.04 (1.0)	25	2.76 (1.0)	30	3.07 (0.9)
	2	32	3.25 (1.0)	9	3.67 (1.3)	32	3.03 (1.1)	26	2.88 (0.9)	14	2.64 (1.1)
I spend time and effort on ideas and projects that require years of work and patience	1	58	3.55 (0.8)	22	3.59 (1.0)	27	3.41 (0.8)	25	3.08 (0.9)	30	3.60 (1.0)
	2	32	3.44 (1.0)	9	3.44 (1.3)	32	3.47 (1.2)	26	3.58 (1.2)	14	4.14 (0.8)
The harder the task, the more determined I will be to finish it	1	58	4.07 (0.9)	22	4.09 (0.8)	28	3.93 (0.9)	25	3.88 (0.9)	30	3.97 (0.8)
	2	32	3.78 (0.9)	9	4.00 (0.7)	32	3.81 (1.0)	26	3.92 (0.9)	14	4.57 (0.8)
I wouldn't think of breaking away from an important project just because others wanted it	1	57	4.23 (0.8)	22	4.68 (0.7)	27	4.15 (0.9)	25	4.24 (0.8)	30	4.33 (0.8)
	2	32	4.34 (0.7)	9	4.56 (0.5)	32	4.19 (1.0)	26	3.88 (1.4)	14	4.29 (0.7)

EMS: First and emergency aid program, ENF: Electroneurophysiology program, MLT: Medical laboratory techniques program, MIT: Medical ımaging techniques program, ANS: Anesthesia program, SD: Standard deviation

positive with learning avoidance and performance approach; it was negatively significant with pursuing long-term goals and pursuing current goals. The subdimension of motivational persistency of following long-term goals was positively significant with learning approach, learning avoidance, following existing goals, and iteration of unattainable goals, while it was negative with the performance avoidance. The subdimension of the motivational persistency of following existing goals was positively significant with learning approach, pursuing long-term goals, and repeating unachievable goals, while it was negative with performance avoidance. The subdimension of motivational persistency of repeating unachievable goals was positively significant with learning avoidance, learning approach, pursuing long-term goals, and following current goals ($P < 0.05$).

The relationships between the achievement orientation and motivational persistency levels of the students studying at the Vocational School of Health Services are summarized in Table 4.

In order to examine the effects of achievement orientation and motivational persistency level on academic success, the general grade point averages (GPAs) of the students were used and the answers to the following questions were sought. Does their achievement orientation have a significant impact on students' academic achievements? When the motivational persistency tool is taken as variable on students' academic achievements, does achievement orientation have a significant impact on students' academic achievements? Path analysis has been applied to find answers to these questions. The diagram of the path analysis performed was shown in Figure 1.

The fix indexes for path analysis seen in Figure 1 are as follows: SRMR = 0.058, CFI = 0.750, Tucker–Lewis Index = −0.836, X^2/sd = 22,39, and RMSEA = 0.386. Path analysis results are interpreted according to fit-indexes criteria. The fit-indexes criteria to be obtained have been suggested in the literature. The fit-indexes obtained as a result of the applied path analysis could not reach the criteria suggested by the literature.[21-24] Since the model cannot be validated, it is meaningless to interpret the indirect effects of the mediator variable. However, variables that were significant predictors of direct effects and had significant effects were identified in the model. Regression estimates for the direct effects of the model are shown in Table 5.

Achievement orientation of learning approach is a significant positive predictor of motivation to pursue long-term goals ($P < 0.05$). Achievement orientation of learning

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Table 4: Relationships between achievement orientation and motivational persistency levels of Vocational School of Health Services students

Subdimensions of the Scale	1	2	3	4	5	6	7
Learning approach	1						
Learning avoidance	0.290**	1					
Performance approach	0.096	0.217**	1				
Performance avoidance	−0.116	0.449**	0.503**	1			
Following long-term goals	0.666**	0.272**	0.024	−0.124*	1		
Following current goals	0.586**	0.086	−0.026	−0.211**	0.702**	1	
Repeating unachievable goals	0.441**	0.286**	−0.018	0.015	0.523**	0.339**	1

*P<0.05, **P<0.01, n=274

Table 5: Estimations in the path analysis model

Variables	Coefficient (estimation)	SE	*Z*	*P*
Learning approach → pursuing long-term goals	0.37	0.03	12.21	0.0001
Learning avoidance → pursuing long-term goals	0.10	0.04	2.64	0.008
Performance approach → pursuing long-term goals	−0.01	0.03	−0.23	0.820
Performance avoidance → pursuing long-term goals	−0.07	0.04	−2.00	0.046
Learning approach → pursuing current goals	0.35	0.03	11.12	0.0001
Learning avoidance → pursuing current goals	−0.01	0.04	−0.32	0.751
Performance approach → pursuing current goals	−0.01	0.03	−0.35	0.727
Performance avoidance → pursuing current goals	−0.07	0.04	−1.73	0.084
Learning approach → repeating unachievable goals	0.28	0.04	6.87	0.0001
Learning avoidance → repeating unachievable goals	0.12	0.05	2.33	0.020
Performance approach → repeating unachievable goals	−0.07	0.04	−1.96	0.051
Performance avoidance → repeating unachievable goals	0.04	0.05	0.81	0.418
Pursuing long-term goals → grade point average	0.01	0.02	0.19	0.850
Pursuing current goals → grade point average	−0.01	0.02	−0.48	0.633
Repeating unachievable goals → grade point average	−0.01	0.01	−0.06	0.950
Learning approach → grade point average	0.02	0.01	1.74	0.082
Learning avoidance → grade point average	0.01	0.01	1.27	0.203
Performance approach → grade point average	0.01	0.01	0.85	0.395
Performance avoidance → grade point average	−0.01	0.01	−1.44	0.150

SE: Standard error

avoidance is a significant positive predictor of motivation to pursue long-term goals (P < 0.05). Achievement orientation of performance avoidance is a significant negative predictor of motivation to pursue long-term goals (P < 0.05). Achievement orientation of learning approach is a positive significant predictor of motivation to pursue current goals (P < 0.05). Achievement orientation of learning approach is a positive significant predictor of the motivation to repeat unachievable goals (P < 0.05). Achievement orientation of learning avoidance is a positive significant predictor of the motivation to repeat unachievable goals (P < 0.05). None of the other effects were found to be a significant predictor.

Chi-square test was applied to determine whether there is a relationship between categorical variables such as achievement orientations and motivational commitment subdimensions, programs, and classes. The scale obtained to evaluate the subdimensions of achievement orientations and motivational persistency scale was used by converting the raw properties to the known z and T standard scores.[25]

When the achievement orientations and the subdimensions of motivational persistency are examined at the class level, there was only a significant relationship between motivational persistency and class levels (P < 0.05). The motivational persistence of the first year students to follow the current goals and the tendency of the second year students to repeat the repeat unattainable goals were found to be statistically significant (P<0.05). Although it was observed that the students' achievement orientation was the highest (37%) in the learning approach sub-dimension, no statistical significance was found. Although it was observed that the motivational persistency of the students was the highest (40%) in the sub-dimension of Following Unachieved Goals, no statistical significance was found [Table 6].

Discussion

According to educational psychologists, motivational persistency must be formed for learning to take place.[6,7,26]

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Table 6: Achievement orientations and subdimensions of motivational commitment, programs, distribution by grade levels

Program	Class	Achievement orientation				Motivational persistency		
		Learning approach	Learning avoidance	Performance approach	Performance avoidance	Pursuing long-term goals	Pursuing current goals	Repeating unachievable goals
EMS	1	19	14	17	8	16	27	15
	2	10	8	8	6	5	7	20
ENF	1	12	2	3	5	7	8	7
	2	2	4	2	1	1	1	7
MLT	1	6	7	5	10	7	8	12
	2	10	7	8	7	5	9	18
MIT	1	4	6	10	5	4	15	6
	2	11	3	4	8	8	9	9
ANS	1	12	6	7	5	7	11	12
	2	7	4	3	0	3	7	4
Total		93	61	67	55	63	102	110
Percentage		33.7	22.1	24.3	19.9	22.9	37.1	40

EMS: First and emergency aid program, ENF: Electroneurophysiology program, MLT: Medical laboratory techniques program, MIT: Medical ımaging techniques program, ANS: Anesthesia program

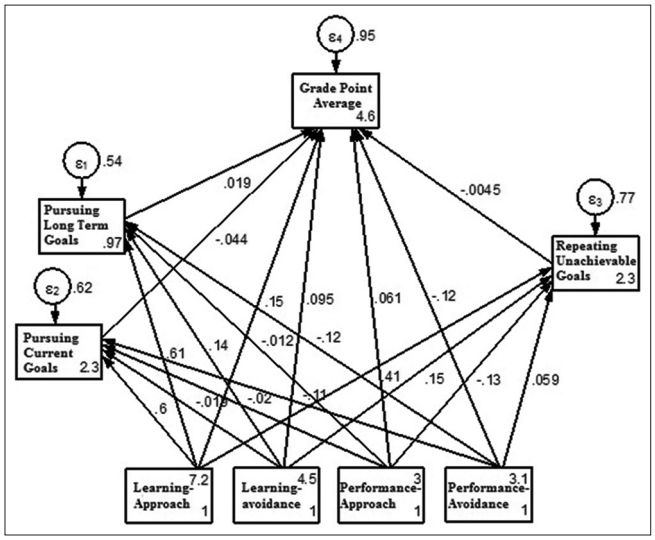

Figure 1: The diagram of the path analysis performed

In addition, it is reported that learning-oriented students gain motivational gains and that this orientation is positively associated with many compatible variables such as using efficient cognitive strategies, linking success to individual effort, and being resistant to difficult situations.[27,28]

In the literature, there are studies investigating the relationships between motivational persistency and achievement orientations with different educational and psychological variables.[29-35] In the Vocational School of Health Services programs that train qualified workforce for health services that have a direct impact on human life, studies were considered to be needed to determine the relationship between motivational persistency and achievement orientations of students. According to the findings of the research, when the success orientations of the students of the Health Services Vocational School are examined, the learning-approach orientation is mainly; when their motivational determination was examined, it was observed that they were prone to the subdimension of repeating unachievable goals.

In a study conducted with medical faculty students, a positive relationship was found between self-management and motivational persistency.[30] It has been determined that the motivational persistency of university students is a significant predictor of school burnout.[35] In the study conducted with the aim of determining the variables that predict the achievement orientation of psychological counseling and guidance students, a positive significant relationship was found between learning/approach orientation and self-perception, self-efficacy, seeking social support, and problem-focused coping, and it was also reported that self-perception, self-efficacy, and problem-focused coping were among the predictors of learning/approach orientation.[31] When we examine the subdimensions of achievement orientation and motivational persistency in health services vocational school students with the regression model and the pat path analysis, in both, it was determined that motivation to pursue long-term goals with learning-approach and learning-avoidance achievement orientation, motivation to pursue current goals with learning-avoidance achievement orientation, and motivation to repeat unachievable goals with learning-approach and learning-avoidance achievement orientation were positively correlated. Whereas, it was determined that the motivation to pursue long-term goals and the motivation to pursue current goals were found to be negatively correlated. Apart from these in the regression model, performance-avoidance learning orientation and motivation to pursue current goals with negative significance, motivation for repeating unachievable goals was found to be positively significant with learning-approach achievement orientation.

In their research conducted by Akın and Arslan with 509 university students, they questioned the relationship between achievement orientation and persistency, and found a positive relationship between learning approach

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and performance.[33] Similarly, there is a positive correlation between all subdimensions of learning approach and motivational persistency. On the other hand, if the same study found a negative relationship between learning avoidance and persistency,[33] the findings of this study found a positive relationship between learning avoidance and persistency.

In the studies conducted by Hardre and Reeve, it was found that among the two groups of students with equal opportunities and studying under the same conditions, those with high motivation exhibited higher performance than low motivated students.[29] In the study, no significant relationship was found between students' GPA and subdimensions of motivational persistency and achievement orientation. Motivational persistency of 1st-year students' following existing goals was found to be statistically significant, while the tendency of 2nd-year students' to repeat unattainable targets was found to be statistically significant ($P < 0.05$). Although it was observed that the students' achievement orientation was the highest (37%) in the learning approach sub-dimension, no statistical significance was found. Although it was observed that the motivational persistency of the students was the highest (40%) in the sub-dimension of Following Unachieved Goals, no statistical significance was found.

In addition to motivation and the aim of pursuing their duties, which are seen as a prerequisite for the realization of learning, achievement orientations, which reflect a certain standard that individuals take as a criterion when evaluating their success in achieving a goal, can be considered to be extremely important in the education of health technicians who can directly affect human life. The study can contribute to the evaluation and development of the education and learning processes of the students who are educated in health services vocational schools and who will participate in the provision of health services in the future. Some limitations should be considered while evaluating the results of the study. It is accepted as a limitation that the research is limited to the five associate programs and students who are active at Çanakkale Onsekiz Mart University, Vocational School of Health Services. In order to make a holistic evaluation, it is recommended to repeat the research on university students from different faculties.

Conclusion

In the study, it was determined that learning-approach and learning-avoidance achievement orientations were a significant positive predictor of motivation to pursue long-term goals, while performance-avoidance achievement orientation was a negative predictor of motivation to pursue long-term goals. Learning-approach achievement orientation was found to be a positive predictor of the motivation to pursue existing goals and repeat goals that were not achieved. Learning-avoidance achievement orientation was found to be a positive predictor of the motivation to repeat unachievable goals. In this respect, the study is important in terms of providing a better understanding of the motivational persistency processes of the achievement orientation of the health services vocational school students.

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Conflicts of interest

There are no conflicts of interest.

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