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Research Article

Diagnosis of Vocational Guidance in the Medical Imaging and Radiophysics Career

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Abstract

Introduction: Pre-university and junior high school students must face one of the most important decisions in life, the choice of their professional career, on which their academic training depends. Objective: Diagnose vocational orientation in high school students to opt for a career in Imaging and Medical Radiophysics in the Province of Sancti Spiritus. Method: A cross-sectional descriptive study carried out on students who entered the Medical Imaging and Radiophysics career from September 2016 to September 2020 in the Province of Sancti Spiritus. Results: There were registrations from all the municipalities of the province, with the municipality of Yaguajay having the highest registration with 29.20% followed by the municipality of Fomento with 15.92%. Conclusions: The Vocational Guidance received by the students before their admission on the Medical Imaging and Radiophysics career was deficient.

Kew Words: vocational guidance; imaging; medical radiophysics

Introduction

As such, the term vocation is derived from the Latin word vocation. According to the Royal Spanish Academy, it is called - anis 'action of calling', that is, etymologically defined with the concept of calling. However, this calling is not easy to define or identify immediately or spontaneously for most people; On the contrary, recent research shows the latent need that professionals in Guidance have to be attentive, vigilant and proactive to the dizzying changes that develop in the scenarios where oriented people make decisions, build their life projects and add to their lives. your career development.[1].

Pre-university and junior high school students must face one of the most important decisions in life, choosing their professional career, on which the lifestyle they will lead upon completing their academic training largely depends. This decision must be made in the middle of the crisis of adolescence, when one is still immature both vocationally and in the area of one's personality, at a time when one is experiencing bodily changes, with continuous changes in interests, insecurity, desire for independence, among other factors. that complicate his decision, despite this, he hopes that his choice will allow him in the future to achieve preparation and achieve his individual satisfaction.[2]

The choice of career is not always carried out based on the vocation of the person making the decision; internal or external factors commonly intervene that can influence it. This decision can be made both consciously and unconsciously. By doing it consciously, the individual has information, recognizes the interests, attitudes and skills related to a profession because he or she considers it attractive; while by doing it unconsciously they take a little more risk in the process, without ceasing to consider that they can be successful in it.[2]

Interests revolve around the family environment, socialization patterns associated with gender differences, friendships, social trends, school, success and satisfaction, as well as the orientation of these interests.[3]

Adolescents need other individuals with more experience to guide and guide them, which entails the involvement of parents or family representatives,

teachers, counselors, among others. But close attention must be paid to the role played by these since they usually use economic solvency and the opportunities that a given profession can provide as priority criteria, conditioning a choice, which in many cases puts the interest or enthusiasm towards such a career.[4].

In its beginnings, the guidance model used was the actuarial one, where the counselor has a highly active role, based on a directed and generalized logic of vocational guidance. Then with the development and production of other theories that give rise to singularity, what we know today as the clinical model of vocational guidance begins to develop, with both approach models coexisting today. The clinical model leaves aside the previous positioning, it is opposed with regard to the places assigned to the consultants and the role of the counselor, who will be available to accompany, find and listen, but it will be the consultant who decides on his own behalf his choice.[5]

According to Navarro Bulgarelli,[6] the current world of work requires more and more effort, more self-knowledge and great self-confidence. All these characteristics that describe today's society make people suffer from anxiety and insecurity. The counseling intervention from the theory of career construction allows the oriented person to form, maintain and reconstruct a narrative of their identity, through which they build a life story that they like, in order to use it in continuous transitions and job changes that could otherwise be traumatic.

Studying human behavior and its motivations is essential because a motivated and job-satisfied employee presents better results for the benefit of the company than one who is not; [(7)] Likewise, when the employee feels positive emotions, they tend to have more exploratory behavior that allows them to increase their skills and abilities, feel comfortable with their work and increase their work commitment.[8].

Vocational training and professional guidance are activities that go hand in hand in the process of recruiting future professionals. Adapting the vocation to the needs of the country today constitutes a challenge for Higher Education in Cuba.[9]

The constant training of teachers in health technology careers regarding educational orientation acquires great significance, taking into account that they educate a professional who will have the responsibility of providing quality health services to the population. In this sense, teachers must be prepared to project and develop educational actions that guarantee adequate guidance throughout the students' educational process.[10]

Despite the work carried out by the different organizational levels of the process, efficient results have not yet been achieved in the training work of the pedagogical group. Therefore, this research has the **general objective** of diagnosing vocational orientation in high school students to opt for a career in Imaging and Medical Radiophysics in the Province of Sancti Spiritus.

Method

A cross-sectional descriptive study was carried out during the period of time between September 2016 and September 2020, which included 113 students who entered the Medical Imaging and Radiophysics career at the University of Medical Sciences of the province of Sancti Spiritus. The inclusion criteria were all students enrolled in the Medical Imaging and Radiophysics program at the University of Medical Sciences of the Province of Sancti Spiritus, in the regular daytime course (CRD), coming from upper secondary education or changes of career. The exclusion criteria were all students enrolled in the Medical Imaging and Radiophysics program at the University of Medical Sciences of the Province of Sancti Spiritus, in the meeting course for workers (CPT).

The following qualitative variables were studied to achieve the proposed objective: sex (female and male, corresponding quantity and percentage), number of students enrolled by municipality, origin of the students, affinity, vocational orientation and open doors (number of students and the corresponding percentage).

The information was obtained through a survey and an interview with each student designed by the authors during the introductory course of the degree. It was estimated to create a survey that investigated the vocational guidance received by pre-university students before their admission. to higher education, their knowledge about the career, and finally the affinity with the chosen university career. For this purpose, this instrument was structured by 11 questions, which were based on the knowledge of each student about the Imaging and Radiophysics career. Medical. The mathematical method used was descriptive, which allowed the information collected to be processed through the use of SPSS software, facilitating the interpretation of the data.The ethical aspects of the study were analyzed and approved by the Ethics Committee and the Scientific Council of the University of Medical Sciences of Sancti Spiritus. Written informed consent was obtained from each of the students, in which the objectives of the study were explained and the voluntariness of participating and abandoning the study at any time they wished was established. They were also asked for a commitment not to participate. participate in any other type of intervention.

Results

Of the total number of students surveyed, the female sex (71.68%) predominated over the male sex (28.31%) (Table 1).

Sex	No.	%
Female	81	71.68
Male	32	28.31
Total	113	100

Source: enrollment record of the general secretary department from 2016 to 2020

Table 1. Enrollment according to sex in the Medical Imaging and Radiophysics degree from September 2016 to September 2020 in the province of Sancti Spiritus

In the period studied, there were enrollments from all the municipalities in the province, with the municipality of Yaguajay having the highest enrollment with 29.20% followed by the municipality of Fomento with 15.92% (Table 2).

Municipality	No.	%
Yaguajay	33	29.20
promotion	18	15.92
Sancti Spiritus	17	15.04
Cabaiguan	17	15.04
Jatibonico	13	11.50
Taguasco	6	5.30
The Sierpe	6	5.30
Trinity	3	2.65
Total	113	100

Source: enrollment record of the general secretary department from 2016 to 2020

Table 2. Number of students enrolled by municipality in the Medical Imaging and Radiophysics program from September 2016 to September 2020 in the province of Sancti Spiritus

Of the total number of students, 88 obtained their degree from upper secondary education (Pre-University) for 77.87% and 25 came from a change of career for 22.12%. 53.09% opted for this career as the 1st option and 24.77% opted for this career as the 2nd option, for a total of 46.90% with those who came from a career change who did not think about Imaging and Medical Radiophysics as the 1st option for their professional improvement (Table 3).

Origin	No.	%	Affinity			
			1st option		2nd option	
			No.	%	No.	%
Pre-University	88	77.87	60	53.09	28	24.77
Career change	25	22.12			25	22.12
Total	113	100	60	53.09	53	46.90

Source: enrollment record of the general secretary department from 2016 to 2020

Table 3. Origin of the students and affinity for the Medical Imaging and Radiophysics career from September 2016 to September 2020 in the province of Sancti Spiritus

15.92% (18) of the students surveyed expressed that they had received vocational guidance on the career of Imaging and Medical Radiophysics, and 84.07% (95) had not received vocational guidance. 15.04% (17) came from pre-university from the Sancti Spiritus municipality participated in the open doors, while 84.95% (96) of the students from the municipalities did not participate in them (Table 4).

Municipality	Vocational Training for the Medical Imaging and Radiophysics career				Participation in open doors			
	Yeah	%	No	%	Yeah	%	No	%
Yaguajay			33	29.20			33	29.20
promotion			18	15.92			18	15.92
Sancti Spiritus	17	15.04			17	15.04		
Cabaiguan			17	15.04			17	15.04
Jatibonico			13	11.50			13	11.50
Taguasco			6	5.30			6	5.30
The Sierpe	1	0.88	5	4.42			6	5.30
Trinity			3	2.65			3	2.65
Total	18	15.92	95	84.07	17	15.04	96	84.95

Source: survey of students of the Medical Imaging and Radiophysics career from 2016 to 2020

Table 4: Vocational guidance and open doors by municipalities

Discussion

The students surveyed from the municipality of Sancti Spiritus in the research expressed that they had received vocational guidance on the career of Imaging and Medical Radiophysics and the remaining students stated that they were only told about medicine, stomatology and nursing, and that the technology careers were only I mentioned their names. Those from the pre-university of the Sancti Spiritus municipality participated in the open doors, while the rest of the students from the municipalities were told the date and time in which this activity would take place at the University, but they were not brought to the same, so they did not receive this orientation. In an interview with the students, they stated that vocational guidance should be more interactive than expository, where they would be shown videos of the activities carried out in each profession and taken to work centers to be able to see and interact with professionals in the specialty. the patients, the equipment and the techniques to be performed.

Medina et al. [11] carried out a descriptive cross-sectional study at the Faculty of Medical Sciences "Dr. Faustino Pérez Hernández", from the Higher Short Cycle Technician in Nursing. The universe and the sample were made up of 91 1st year students from the 2018-2022 school years. In the surveys carried out, the female sex (94.5%) predominated over the male sex (5.5%) of the total number of students. The majority of these chose this career as their second option (49.4%). Those who would study medicine prevailed (54.3%) if they had the opportunity. It was evident that 62.7% chose the career due to a vocation to the profession, with non-vocation being the most frequent cause of school dropout (35.2%). It should be noted that knowledge of the profession (53.8%) was what motivated them to continue studying.

Vilaboy et al., [12] implemented and evaluated the system of actions to enhance vocational guidance in 12th grade students of pre-university institutes in the province of Cienfuegos, with 523 students participating in the 2019-2020 academic year. It was proven that the expectations of the students with the guidance received were satisfied (86.4%) taking into account the vocational guidance pathways towards careers in Medical Sciences developed by health institutions, which allowed increasing the level of knowledge about the profession and strengthened links between organizations. and institutions.

Áucar and Lajes, [13]. in their vocational extension strategy aimed at the professional training of students of dentistry careers at the University of Medical Sciences of Camagüey between January 2015 and January 2020, vocational guidance, promotion and prevention activities were carried out. oral health. In the study, the female sex predominated among the schoolchildren enrolled in the Circle of Interest. At the end of the intervention, an adequate level of information (98.1%) and oral hygiene (98.1%) was evident, unlike what was initially observed. Future stomatologists and technologists recognized the personal and professional enrichment provided by the actions developed.

Prieto, Guillemí and Claro,[14] in their cross-sectional descriptive study, carried out between January and February 2018, in 408 first-year students of

Medicine, the vocational guidance intervention was recognized as insufficient (43.87%). In addition, it was evident that the main vocational guidance activities received were open doors (40.78%) to the university, which showed difficulties in this work and the need for new strategies that motivate the training of a relevant doctor.

Ascenzo,[15]. from the execution of a Vocational Guidance program, where it was possible to apply both the tests of the "I Decide my Future" program and the Primary Mental Aptitudes Test (PMA) to 100% of the students in the study allowed for the preparation of Vocational Guidance reports and the return of results to the entire population. During the interviews carried out, the students indicated that they felt supported throughout the process. It was observed that the students were active agents during this process. since their interest and constant search for information was evident, making conscious decisions according to their preferences, which allowed a large number of them to enter university before the end of the school year, or to have the decision made.

Conclusions

The results found in this research indicate that the Vocational Guidance received by the students before their admission to the Medical Imaging and Radiophysics career was deficient, which is why it did not contribute to an adequate choice, as well as the need that young people have for have educational spaces that allow them to know and develop a vision of their possible professional future, since apart from absences in knowledge, students show a lack of motivation, since they are unaware of the strengths or weaknesses that lead them to make decisions. Vocational Guidance must constitute a process that includes multiple pathways and that is developed from the earliest ages to pre-university, it must have a differentiated nature and be directed to prepare the student in the professional selection process.

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