Characterization of student dropout associated with risk factors in a public university

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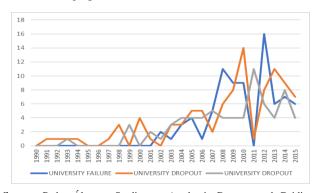teresa.ventura@unica.edu.pe

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Abstract— The study aimed to determine the risk factors in tutoring and dropout in students in a public university methodology: hypothetical deductive, type and quantitative, descriptive and cross-sectional design. The sample consisted of 105 students from the 1st to the 8th semester 2018-2019. 95% female predominance, internal tutoring risk factors are present as motivation only in 48%, self-esteem 38%, food 49%, external factors such as aggression 57%, teacher support 15%, the use of the Web without filter the 85 % they are present. The results of the research led us to conclude that internal and external risk factors are present in the tutoring and dropping out of students.

Keywords: Risk Factors, Tutoring, Dropout

I. INTRODUCTION

A global problema is the desertion of students that puts university institutions in difficulty by presenting these a multi-channel structure in which it emphasizes the contribution that from the tutoring of the teacher can make a contribution to the retention of the student; as shown in the graph below. [1]

Source: Pedro Álvarez. Studies on Academic Dropout and Guiding Prevention Measures at the University of La Laguna Spain.

The Latin American and Caribbean region needs to form rapidly qualified human capital, providing support to students who are not academically prepared should be inserted, either through compensatory programs or through other mentoring, guidance and counseling programs. [2]

The factors leading to university abandonment are vocational, administrative, lack of teacher and economic training. Work is completed by proposing measures to counter the dissertation of university students. [3]

Student dissertation in health science careers averaged 10%, the predominant origin of which was vocational and economic. The emphasis on universities is on tracking academic performance, but not on those who suffer from it. Universities forming health professionals have no plans for potential defectors. [4]

In Peru, abandonment reaches 30%, some because of lack of vocational guidance and economic problems. Justo Zaragoza projects that of 300 thousand young people who will enter different universities, 50 thousand young people will give up their studies, said that 70% of the students who solve not following their studies belong to private universities and the remaining 30% 17 to public. [5]

The tutor is the person who has experience in teaching in higher education and knows the reality of the young people who are inserted into university education.

To perform an accompanying job, you must perform four hours per month of individual tutoring (one hour per week), plus four hours of group accompaniment per month (two continuous two-hour sessions every 15 days). Here the tutoring coordinator will designate whether the individual tutors will also be group tutors. [6]

Academic tutoring is considered as one of the solutions to academic problems, and shows effective results and through it, the primary objective is to achieve a comprehensive training in the university, establishing a tutorial system making it a vital and future source of assurance of our students allowing them to be valued and respected thus forging a personal, emotional and social balance. [7]

At the institutional policy level, it is relevant to manage capacity support and student adaptation, as it will contribute to the generation of a positive balance between academic and social integration, based on the configuration of elements that will support the development of a

motivational context that will allow students to maintain their commitment to the achievement of the graduation goal. [8]

The internal factors in the desertion can be named: the temperamental differences that detached in abandoning the career that mark the contrast with the students who successfully completed, also the erroneous choice of the career, since they point out that the chosen career did not meet their expectations and therefore can be cited the lack of vocational guidance; in addition, cases of pregnancy and the accumulation of rebuked courses, or decrease from semester. It can be highlighted as a positive factor that they would like to continue their studies. There are several variables that can trigger in a career defector, and for this to improve or at least reduce the amount of university dropout it will be necessary to have support from various institutions to alleviate this situation that leads to unnecessary expenses for both the student and the state. [9]

The variables that best explain a student's dissertation are socioeconomic reasons and the college entrance score. According to the built decision tree it is concluded that the retention stands at 78.3%. The quality of the classifiers ensures that their predictions are correct, with statistical curve levels of 76%, 75% and 83% success for Bayesian network, decision tree and neural network classifiers respectively. [10]

The analysis of the results is aimed at making recommendations to each of the faculties, from the determinants raised in the problem, in order to ensure timely graduation. The results show that the determinants of desertion differ by faculty and with the general trend based on socioeconomic causes. Similarly, it is concluded that it is important to articulate different dependencies to mitigate desertation in students. [11]

The problem of drop-out is undoubtedly one of the most worrying institutions of higher education today. It is a complex phenomenon, which requires in-depth analysis, as its causes are due to multiple factors. The institutional and socio-economic conditions of the country mark its particularities. [12]

One strategy that could be applied, based on the results obtained, is to be able to characterize the student based on the variables indicated and identify the groups with the possibility of obtaining a low academic performance, and therefore fail and defect. The objective would be to propose and implement intervention strategies that provide for this problem. [13]

Reflection on the responsibility of higher education institutions, focused on student graduation. The task of fulfilling this work addresses the problem of university student desertion. The abandonment of university by students negatively impacts the country's progress in the different social and scientific fields. Education is called to prevent and intervene in this problem. From this perspective, current trends in research on

university student desertion; in addition, the topic is conceptualized by briefly summarizing some relevant studies, categorizing them from the perspective, quantitative and qualitative. It reflects the complement of the two approaches, which allow knowing, analyzing, addressing and intervening the phenomenon, in order to propose strong solutions that reeded this problem of an educational and social nature. Finally, it reflects on how higher education is called to understand and mitigate the phenomenon, which promotes institutional policies that seek the permanence of students. [14]

Student drop-off is a latent problem in the various Peruvian universities, public and private, but there are mechanisms or strategies that can contribute to countering it, as has been shown in this research, that with the elaboration and design of predictive models, based on the characteristics of the students of each institution, can be detected early to young people who have the greatest risk of failing a course and that could then lead to desertion of university life. [15]

The experimentally validated desertion risk prevention strategy in students under poverty conditions has proven relevant by significantly reducing drop-out levels in the poor student at the Technical University of Manabí, managing to transform weaknesses in strengths and threats into opportunities, which has significantly impacted the efficiency of the career and the creation of optimal conditions for students' academic performance, where risk prevention is the main tool to avoid abandonment, by taking care of the student at risk of dissertation when he still has his academic situation solution. [16]

II. MATERIAL AND METHOD

The formula for calculating the desertion d' (initial license plate Drop rate - d * 100 / initial license plate in the q year for the analysis of the drop-out rate is used the following measurement scale: low: less than 20% mean: from 20% to 50% high: Greater than 50%.

$$ID = \frac{Dk \times 100}{M} \tag{1}$$

Being the rate equals: 1.15.was low

The method of research. It was DEDUCTIVE HYPOTETICO, The type and design of the research is quantitative, descriptive and cross-cutting. The population of the students was composed of 346 enrolled in the period 2018-II. The sample was 30% of the total population by doing a total of 105 surveys from the I to the VIII cycle. The Data Collection Instrument applied 29 questions in the first 13 of student characteristics and family data relating to tutoring. Other factors to identify internal and external factors of risk factors and dissertation rate. For data processing, an excel 2017 spreadsheet matrix and the SPSS V 24 statistical program were developed.

In the processing of data according to the variables and objectives of the study, an array table of general and variable data of the study was developed.

The presentation of the results was done using tables as graphs, for which a statistical program is used. The research project was presented and obtained consent at the University's nursing faculty. The period for the preparation of research work was from August 2018 to July 2019, for the collection of information was coordinated with delegates from the I to VIII cycle of the faculty. The survey lasted 20 minutes for two weeks with support from researchers who were 4.

To validate the instrument, the pilot test of 10 surveys was used for students from various semesters of the faculty then introduced for the reliability of the instrument the Combrach Alpha statistical test was applied. The confidentiality and veracity of the data obtained was applied, strictly handling the scientific character whose results were published.

III. RESULTS

The tabulation plan consisted of determining the results of the variables expected to be obtained in order to respond to the problem and objectives set out below in the corresponding tables and graphs:

TABLE I. DEMOGRAPHIC CHARACTERISTICS OF STUDENTS 2018-2019

FEATURES		FRECUENCY	
		N°	%
Sex	Male	5	5
	Feminine	100	95
Age	16-20	45	43
	21-25	32	30
	26 more	28	27
Origin	Huancavelica	5	5
	Ayacucho	20	19
	Arequipa	2	2
	Ica	78	74
Notificatión in case of Emergency	Parents	80	76
	Family	20	19
	others	5	5
Marital status	Single	95	90
	Married	6	6
	Cohabiliting	4	4
TOTAL		105	100

Demographic data show: that the predominance is female at 95%, the highest age is 16-20 years with 43%, the largest source is Ica at 74%, in case of emergency its parents will be called 76%. 90% are single, 6% married and 4% are single.

SEMESTER	Nº	%
I	15	14.3
II	12	11.4
III	14	13.3
IV	12	11.4
V	13	12.5
VI	12	11.4
VII	12	11.4
VIII	15	14.3
TOTAL	105	100

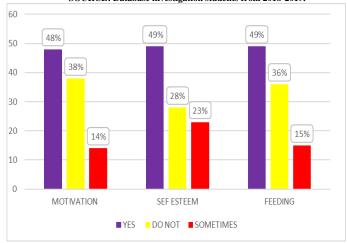SOURCE: Database investigation students from 2018-2019.

Fig. 1. **Internal Risk Factors in Tutoring**
The motivational indicator shows that 48% are motivated while 38% are not and 14% are sometimes motivated. The Self-Esteem indicator reflects that only 49% keep their self-esteem in mind 28% not and 23% sometimes. Food 49% responded to feed well, 36% poor and 15% at times.
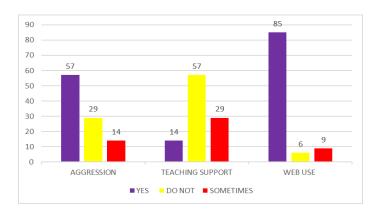

Fig.2 External Risk Factors in Tutoring
The Aggression indicator shows that 57% feel assaulted by a family member, while 29% do not and 14% sometimes. The Teacher Support indicator reflects that 14% feel support from the teacher when he struggles while 57% do not and 29% at times. on the use of the web without filter 85% revealed that if your information is therefore not as reliable, 6% are not and 9% at times.
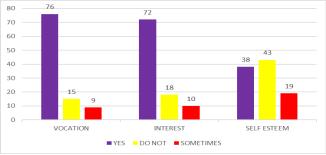
Fig.3 Internal Risk Factors for Desertion

The vocational indicator showed that 76% feel they have disposition, while 15% do not and 9% sometimes. The interest indicator reflects that 72% perform well while 18% do not and 10% at times. When I ask self-esteem 38% answered that they feel safe, 43% do not and 19% sometimes you don't feel safe.
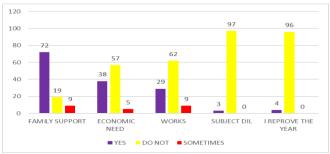

Fig.4. External Risk Factors for Desertion

The family support indicator shows 72%, while 19% do not feel supported and 9% sometimes. The economic necessity indicator reflects 38% of 57% not and 5% at times. 29% of student's work 62% does not, and 9% sometimes, 3% repeated some subject and 4% repeated the year.

IV.DISCUSSION

Table No.1. Demographics show: that the predominance is female at 95%, the highest age is 16-20 years with 43%, the largest source is Ica at 74%, in case of emergency its parents will be called 76%. 90% are single 6% married and 4% living together. These data coincide with the characteristics of nursing careers worldwide which is of female predominance and single marital status, it is worth mentioning that the deserted were female students who in their entirety got pregnant and could no longer study because of the rigid schedule of the race.

Table. No. 2. It corresponds to the semester of the student In this table we can see the proportion of students surveyed was 15% of each semester for the research being the highest 14.3% corresponding to those of lI and VIII semester, followed by the 3rd semester with 13.3%, then follows the V cycle with 12.5% and then have 11.4% with the II, IV, VI and VII semester, did not take the IX and X cycle by these were performing pre-professional practices therefore had other characteristics.

Fig No.1 Corresponds to internal **risk factors in tutoring.** When evaluating the **motivational indicator** shows that only 48% are motivated while 38% are not, and 14% sometimes, researchers consider this indicator to be very important to take this into account to avoid deletion through tutoring and identify timely and make decisions. **The Self-Esteem** indicator reflects that only 38% are mindful of their self-esteem 28% do not, and 23% sometimes considering that this seemingly subjective indicator is extremely important because of the impact of detecting and improving overall valuation. While in feeding only 49% is adequately fed is another concern for researchers this indicator is directly related to a comprehensive education. These indicators are important in the development of student learning that only implemented through. PRONABEC of the Catholic University (2012-2013) whose program is designed for the development of its talents and skills both in academic performance and integral development from humanistic training. [6]

UNICA (2019). It has also implemented a mentoring program we hope that this problem will decrease through the educational orientation, inherent in the curriculum, that will be responsible for the affective and cognitive socio-accompaniment of students within a formative and preventive framework, from the perspective of human development. [7]

Fig.No.2. External risk factors in tutoring. The Aggression **indicator shows** that 57% feel assaulted by some familiar phenomenon that is unfortunately seen in Latin America and the Caribbean; we expect this phenomenon to decrease with the tutoring program installed at the University. The Teacher Support **indicator** reflects that only 15% feel support from the teacher through tutoring, 57% do not and 29% at times, the findings of this research will definitely be aimed at reversing the 57% who feel abandoned by the teacher. But when researching the use of the **Web 85% of** students revealed that they use "adequately", 6% poorly and 9% at times, this indicator was analyzed from the point of view of bad habits in the use of them, it is observed as a distracting factor in class by social networks researchers implemented more interactive classes and evaluations to capture attention through educational games. The personalized counseling that the student needs in the faculty is very essential; on the other hand, this study resembles the results of Franco B **2017.** Where student abandonment is due to vocational factors, lack of teacher training and economic factors. [3]

Fig No. 3. **Internal dissertation factors.** The vocational indicator got 76% to feel they have aptitude, while 15% do not and 9% sometimes. The interest indicator reflects that 72% are yielding while 18% do not and 10% were sometimes corroborated by the academic record. When the Self-Esteem indicator is 38% is released I answer that it feels safe, 43% do not and 19% sometimes do not feel safe. Unfortunately it shows low self-esteem in students that must be taken care of immediately. According to the text on:

Defection in Latin America (2009)collected suggestions from defectors such as: increased organization in the administrative area, improving confusing exams, friendly platforms, more followed tutoring of vulnerable students, reducing students by tutoring improve public and student care, improve administrative fallacy, improve tutor training... [12]

Fig. No. 4. External desertion factors. Family support **is** 72%, while 19% do not feel supported and 9% sometimes. The economic **need to** continue the race indicator reflects 38%, 57% do not and 5% at times. When asked if 29% work I answer that if, 62% do not work and 9% sometimes, 3% failed any subjects and 4% also failed the year. **Maria A (2017)** founded the need for the preventive approach to desertion and risk, establishing important concepts such as the risk of dissertation and risk factors of desertion, which constitute theoretical contributions, with a significant methodological value. [16]

On the other hand, Franco **Dueñas B l. (2017)** concluded that the factors leading to university abandonment are vocational, administrative, lack of teacher and economic training. Work is completed by proposing measures to counter the dissertation of university studies. [3]

V. CONCLUSIONS

- Internal risk factors in tutoring such as: motivation by 52%, self-esteem 52% and feeding at 51% are present, external indicators such as aggression at 57%, teaching support 86% use of the website "85%" claims to use properly are present in tutoring.

- The internal risk factor of the desertion as: vocation was considered as a positive factor since it was found at 76%, as well as interest by 72% these corroborated with the record of notes. While self-esteem reflects 63% don't feel safe.

- External risk factors of dissertation such as: family support was 76% detected as a positive indicator, with respect to the indicator economic need was found at 43% low resources, compared to the indicator works 38% works to solve their career, repeated some subject and 4% also repeated the year.

- However, this research supports the improvement of negative indicators which are being significantly reversed through **the tutoria program implemented** at the University.

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