Educación XX1
ISSN: 1139-613X · e-ISSN: 2174-5374

The development of resilient behaviours in the fight against university academic dropout

El desarrollo de conductas resilientes en la lucha contra el abandono académico universitario

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How to reference this article:

López-Aguilar, D., Álvarez-Pérez, P.R., González-Ramos, J.A., & Garcés-Delgado, Y. (2023). The development of resilient behaviours in the fight against university academic dropout. *Educación XX1*, *26*.(2), 91-116. https://doi.org/10.5944/educxx1.35891

Date received: 15/10/2022
Date accepted: 03/03/2023
Published online: 13/06/2023

ABSTRACT

The events that the health pandemic has brought with in recent times have accentuated the importance of personal and emotional factors in the training trajectories of students. For this reason, the study of resilience has become an important topic in the context of higher education, given the importance of this ability to cope with adversity and academic stress. In relation to this topic, the objective of this research was aimed at verifying whether students with greater resilience capacities had lower intentions of abandoning university education. The initial hypothesis was that those students with a low level of academic resilience had a higher risk of failing and abandoning the studies they had started. Following an ex-post-facto quantitative research approach, a questionnaire was applied to a sample of (n=412) students from all undergraduate degrees at the Faculty of Education of the University of La Laguna. The results showed that students with higher

levels of resilience show a higher intention to drop out and vice versa (less resilience, higher intention to drop out). At the same time, it was shown that a high percentage of students with low resilience expressed their intention to drop out, which highlights the predictive value of resilience in relation to academic performance. These results can help to have an understanding of the importance of this factor in the training trajectories of students, developing training and guidance actions that improve said competence and prevent situations of failure and academic dropout.

Keywords: higher education, resilience, student adjustment, dropout

RESUMEN

Los acontecimientos que en los últimos tiempos ha traído consigo la pandemia sanitaria, han acentuado la importancia que tienen los factores de carácter personal y emocional en las trayectorias formativas del alumnado. Por este motivo, el estudio de la resiliencia se ha convertido en un tema importante en el contexto de la educación superior, dada la importancia que tiene esta capacidad para hacer frente a las adversidades y al estrés académico. En relación a esta temática, el objetivo de esta investigación se orientó a comprobar si los estudiantes con mayores capacidades de resiliencia, tenían menores intenciones de abandonar la formación universitaria. La hipótesis de partida fue que aquellos estudiantes con un nivel bajo de resiliencia académica tenían mayor riesgo de fracasar y abandonar los estudios que habían iniciado. Siguiendo un enfoque de investigación de corte cuantitativo ex-post-facto, se aplicó un cuestionario a una muestra de 412 estudiantes de todas las titulaciones de grado de la Facultad de Educación de la Universidad de La Laguna. Los resultados evidenciaron que el alumnado que tiene mayores niveles de resiliencia, muestra una menor intención de abandono, y viceversa (menor resiliencia mayor intención de abandono). Al mismo tiempo, se demostró que un alto porcentaje de estudiantes con baja resiliencia manifestaron su intención de abandonar los estudios, lo cual resalta el valor predictivo de la resiliencia en relación al rendimiento académico. Estos resultados pueden ayudar a tener un conocimiento de la importancia que tiene este factor en las trayectorias formativas del alumnado, desarrollando acciones formativas y orientadoras que mejoren dicha competencia y permitan prevenir situaciones de fracaso y abandono académico.

Palabras clave: educación superior, resiliencia, adaptación del estudiante, abandono de los estudios

INTRODUCTION

In addition to the changes of various kinds that have been taking place in society as a whole, in recent times the population worldwide has been affected by a health crisis, which has altered many of the rules of how society functions and has forced it to adapt to a series of other changes resulting from the pandemic for which many were not prepared. Thus, in recent decades, terms such as dissatisfaction, stress, depression, anxiety, burnout, negative thinking, suicide, etc. have begun to be used frequently, which highlights the importance of many negative situations and realities in which people find themselves involved and the need to respond to these problems.

With regard to the management of this type of negative circumstances, the resilience approach has emerged, which aims to influence the understanding of and coping with these psychopathologies (Sibalde et al., 2020). Research on resilience began to show that many young people, despite the adverse situations that affected them, were invulnerable (Uriarte, 2006); in other words, they were resilient in the face of adverse situations and adapted to unfavourable realities. Thus, Luthar and Cushing (1999) defined resilience as a valid competence to cope positively and affectively with risk or adversity.

People who act resiliently strive to cope with the adversities they face, showing a clear spirit of self-improvement. According to this perspective, resilience is embedded in a particular social, cultural and family context and occurs at particular times in a person's life.

These findings led to an in-depth exploration of this resilience construct and proposals for its development. The capacity to adapt to new realities, coping positively with complex situations, the confidence with which decisions are faced and the active and protagonist role that each person assumes in the management of their life processes are characteristics of resilient behaviours, which favour progress in the course of each person's life, at each moment of maturity. Resilience is therefore a construct of an evolutionary nature, to be activated in dynamic situations or processes, in order to overcome complex situations or activities. But not all people are naturally resilient, so this competence must be promoted through training in the different scenarios and contexts in which each person grows, copes and develops. And one of the contexts in which the importance and usefulness of resilience has been seen is in academia. In general terms, educational resilience can be understood as the capacity of students to perform well, even when social, economic or family circumstances are not the most favourable. Martín (2013) refers to academic resilience as the ability of students to overcome adverse situations that threaten the possibilities of an adequate educational development.

It is therefore an ability to overcome adverse situations and move forward in the achievement of academic goals. The assumption of resilience as a capacity to cope on one's own with complex situations in school contexts undoubtedly has enormous potential in the education field, especially if it is contextualised in the current higher education training model. The focus in educational processes at the university is now on the students, who have to be autonomous and active, with the capacity to manage the search for information and construct their own learning (Student-Centred Teaching Model). Acknowledging this approach, resilience is a key factor to consider, as students with resilient skills will be less likely to fail or drop out of education.

The adaptation of students to university education is a very complex process, as reflected in the dropout rates reported every year. The change of stage, the application of new learning methodologies, the relationship with new people, facing new content, the pressure of assessment, having to manage tasks from different subjects, etc. means that for many students, their time at university is short-lived. For these reasons, academic dropout is nowadays one of the serious problems facing the university institution (Bethencourt et., 2008). Although a wide range of measures are being implemented, dropout rates are very high and exceed global expectations year after year (Álvarez and Cabrera, 2020).

It is especially during the first year of university studies that students assess their problems and ask themselves whether they will be able to continue their studies, in many cases dropping out because they cannot cope with the situation, which turns university faculties into revolving doors through which students pass in a fleeting manner (Bernardo et al., 2020). For various reasons, many students do not feel able to meet the challenge of university studies and feel demotivated and excluded and fail to complete their adaptation process. This lack of social and academic integration, the isolation that invades them, the lack of motivation due to their inability to keep up with the learning process, etc. leads them to the decision to give up the training they have started. Especially for students who do not have the resilience to cope with these adverse situations, the chances of coping are reduced and dropping out is experienced as a relief from the stress of the situation.

University students face many challenges related to their educational process and, as has been shown, these have a considerable impact on psychological, behavioural, health, academic and other aspects. In this sense, the study by Zárate-Depraect et al. (2018) showed how lack of study habits leads to high academic stress. Likewise, the work by Cara et al. (2021) evinced that poor lifestyle habits of university students (shortage of time, number of class hours, internships, etc.) give rise to academic stress that has a negative influence on study performance. It is therefore important that resilience is considered as a predictor of academic

adaptation and performance. The studies that have been carried out have revealed that those students with good resilience capacity and management not only avoid situations of academic failure or dropout, but also achieve good learning results, controlling all those factors such as anxiety, low self-esteem, stress or lack of social skills that in many cases determine dropout. Students who deal constructively with the challenges of the learning process and are not overcome by negative academic experiences tend to turn the situation around and achieve good learning outcomes. In this line, Gimeno-Tena and Esteve-Clavero (2021) consider that healthy habits help to achieve good academic results.

Students with low resilience tend to present low self-esteem, lack confidence in their abilities and have anxiety about academic activities, etc. All of this will influence their academic performance, as there is a direct relationship between learning and resilience, in some cases leading to dropping out of education. This justifies the need to propose measures throughout the education system and life that contribute to the acquisition and strengthening of resilient competences, which help learners to cope with these difficulties (Kuperminc et al., 2020). If resilience is worked upon as a component of the maturation process of students, as a cross-cutting content of teaching, a better emotional balance and integral development can be achieved.

Many models have been proposed to contribute to the development of resilient behaviours in schools. These include that of Henderson and Milstein (2005), who proposed the resilience wheel, a six-step scheme that contributes to building resilience in schools. However, it should be noted that building resilient environments through the work of teachers is not an easy task, due to the mediating effect of the context. As Belykh (2019) points out, what is really important would be for teachers to develop a proactive resilient attitude in relation to the context in which they operate. The work of educators (teachers, tutors) is very important in the configuration of scenarios that facilitate the development of resilient behaviours in students. We are talking about teachers who are clear about and play an active and motivating role in the development of resilience among their students (Segovia-Quesada et al., 2020).

METHOD

Objectives and hypothesis

The main purpose of this research was to analyse whether university students with low resilience were more likely to drop out of school. Thus, the working hypothesis underpinning this study was that students with low levels of resilience would have a greater intention to drop out.

Participants

The target population for this study was university students studying undergraduate courses associated with the education area at the University of La Laguna (ULL): Bachelor's Degree in Early Childhood Education, Bachelor's Degree in Primary Education and Bachelor's Degree in Pedagogy. During academic year 2021/2022, the period in which the information gathering process was carried out, a total of 2341 students were enrolled in these university degrees, according to data provided by the Analysis and Planning Office (GAP) of the ULL. Thus, to achieve a confidence level of 95% and a margin of error of ±5%, the final study population should be at least 331 students. In the particular case of this study, and by means of a non-random accidental sample selection procedure, a total of 412 (n=412) students participated, which placed the calculation of the sample representativeness at 96% confidence and a ±4.6% margin of error. The general characteristics of the sample participating in the study are shown in table 1.

Table 1
Participating sample characteristics

Age	Minimum=18 Maximum=51 $\bar{x}$=20.01 SD=3.45
Gender	Men=19.2% (n=79) Women=80.8% (n=333)
Qualification	Early Childhood Education Teaching Degree=19.9% (n=82) Primary Education Teaching Degree=42.7% (n=176) Degree in Pedagogy=37.4% (n=154)
Academic year	First=176 (60.5%) Second=115 (39.5%)

Data gathering instrument

For data collection, an ad hoc instrument designated the "Resilience and University Dropout Intention Questionnaire" was designed and constructed based on the Connor-Davidson Resilience Scale (CD-RISC) of Connor-Davidson (2003). This scale includes a total of 5 factors distributed in 25 Likert-type items (table 2). The reliability and validity results obtained (internal consistency, test-retest, convergent validity and discriminant validity) and the factor analysis carried out on the original scale present values accepted by the literature for use as a tool for measuring the resilience construct, which can be consulted in the work of Connor and Davidson (2003).

Table 2
Resilience scale items and coding

Factors	Items	Cod.
1. Personal competence, effort and tenacity	I work to achieve my goals, regardless of the difficulties I may encounter	r24
	I don't give up, even though things seem to have no solution	r12
	I think I can achieve my aims, even if there are obstacles	r11
	I'm proud of my achievements	r25
	I make an effort no matter what the outcome may be	r10
	I like challenges	r23
	I consider myself a strong person when faced with life challenges	r17
	I am not easily discouraged by failure	r16
2. Self-confidence and tolerance of difficulties	When faced with problems, I sometimes act intuitively (without knowing why)	r20
	If necessary, I can make difficult decisions that could affect other people	r18
	I prefer to try to solve things myself, rather than let others decide for me	r15
	When tackling problems, I tried to see their funny side	r6
	Facing hardship can make me stronger	r7
	I am able to handle unpleasant/painful feelings (e.g. sadness, fear, anger, etc.)	r19
	I stay focused and think clearly under pressure	r14

Factors	Items	Cod.
3. Positive acceptance of change	I am able to adapt when changes arise	r1
	I can cope with anything	r4
	Past successes give me the confidence to take on new challenges	r5
	I have at least one person I can count on if I am stressed out	r2
	I can recover soon after experiencing difficulties	r8
4. Self-monitoring of life development	I feel in control of my life	r22
	I know where to seek help during times of stress	r13
	I know my purpose in life	r21
5. Influence of luck or spiritual matters	When there is no clear solution to my problems, sometimes luck can help me	r3
	Good or bad, I think most things happen for a reason	r9

The questionnaire also included other questions on socio-demographic (age, gender), academic (university degree, academic year) and dropout (intention to drop out of studies and reasons for such intention) issues. This type of information was used, on the one hand, to describe the characteristics of the participant sample and, on the other, to assess the possible impact of resilience on the intention to drop out of university studies. The type of measures used in the questionnaire applied are presented in Table 3.

Table 3
Types of measures used in the questionnaire

Item	Measurement used
Age	Open
Gender	Dichotomous
University qualification	Multiple-choice
Academic year	Multiple-choice
Intention to drop out of university	Dichotomous
Reasons for dropping out of university	Open
Resilience scale	Likert -type scale (1-7*)

* Where 1 refers to the lowest score and 7 to the highest.

Prior to administration of the final questionnaire, the translation process of the items included in the original CD-RISC scale was carried out. Once this initial step was completed, an initial version of the questionnaire was defined and submitted, following McMillan and Schumacher's approach (2005) to different procedures for the construction of data gathering tools:

- First, an expert trial was held to assess, item by item, the comprehension, relevance and appropriateness of the questions included in the questionnaire. To this end, 3 people specialised in the field under study collaborated in the study (n=3).
- Second, 2 people linked to the educational research methodology area (n=2) carried out a form test analysing aspects such as the suitability of the questions to the objectives of the work, whether the items were properly defined for the analyses that were to be carried out., etc.

For both tests (expert and form), evaluators were provided with an instrument in which they rated the relevance, clarity and appropriateness of each item on a 7-level Likert scale (1 as the lowest rating and 7 as the highest). In addition, a comments section was included so that experts and specialists could provide their qualitative assessments of the proposed questionnaire.

The information from these tests served as a reference to incorporate modifications in the instrument that was finally applied. With regard to the reliability of the questionnaire used, the values of Cronbach's alpha coefficient (α) and McDonald's omega (ω) are shown in the results section of this paper.

Data gathering procedure

Once the final data collection instrument had been defined, the questionnaire designed for this purpose was applied. We decided to administer the questionnaire remotely in order to facilitate the data gathering procedure. To this end, the Google Forms tool was used, as the target population was ULL students who used Google for Education as their digital working ecosystem and were therefore familiar with this tool. To provide students with the link containing the data collection instrument, the teachers who taught them were contacted by e-mail to request their collaboration in administering the defined test, so that, in a short space of time (approximately 15 minutes), students could complete the questionnaire during class sessions. In this communication with the teaching staff, the aims of the work being carried out were explained and a document with the informed consent to be distributed to the students was attached. After this initial contact and during the months of March, April and May 2022, the process of administering the questionnaire was carried out.

Ethical questions and methodological rigour

Special attention was paid to ethical issues and methodological rigour in this study. To this end, different strategies were articulated. One of them was the drafting of a confidentiality document signed by the researchers in order to preserve the information derived from the study. Another was the construction of an informed consent form which was given to the students at the time of the test administration and which contained the objectives of the work, the summary of the study, the researchers responsible, the processing of the data obtained, and the results of the study, etc. In this consent form, the study's target population was also informed that the work was voluntary and anonymous. Finally, it should be noted that, at all times, the data derived from the work were submitted and processed in accordance with the provisions of Organic Law 3/2018, of 5 December, on the protection of personal data.

Analysis and interpretation of the results

Once the administration and data collection process was completed through the questionnaire, we proceeded to download the database automatically generated by the Google Forms application in CSV (comma separated values) format. Processing of the data and the statistical tests performed to meet the objectives of this study were carried out using R-Studio software (version 2022.07.1 build 554) and Microsoft Excel (Office 365 version), both for Microsoft Windows

10 operating environment. Specifically, these methodological support applications were used to perform calculations of central tendency and frequencies, assess the data distribution (kurtosis, skewness, Shapiro Wilk and Kolmogorov-Smirnov [K-S]), perform contrast analysis using non-parametric tests (Mann-Whitney U) and run tests to measure the reliability of the resilience scale used (Cronbach's alpha coefficient [α] and MacDonald's omega [ω]).To complete the contrast analyses carried out, the effect size was quantified using the probability of superiority test (PSest), using the following mathematical expression (Erceg-Hurn and Mirosevich, 2008):

$$Ps_{est} = \frac{U}{m.n}$$

The α value for the analyses performed in this paper was .05. On the other hand, for the open-ended question included in the survey, a content analysis was carried out and the answers were coded with the acronym pN (where p refers to the word participant and N to the number of the study subject).

RESULTS

Database debugging and prior analyses

Prior to conducting the statistical tests to meet the objectives set in this study, a process of data cleaning and preliminary analysis was carried out to determine the type of contrast tests to be performed Initially, it was verified that the information imputed in the database automatically generated from the Google Forms tool was within the expected range for each of the items in the questionnaire. The presence of possible multivariate outliers was then determined. For this purpose, the Mahalanobis distance was calculated, which, according to Muñoz and Amón (2013), yields a value from which subjects are identified as extreme because they are located considerably far from the centre of the mass. In the particular case of this study, this distance obtained a value of 58.12, which made it possible to recognise a total of 74 atypical cases, placing the definitive study sample at 338 students (n=338).

Another aspect that was reviewed in this data cleaning process was multicollinearity. This was done to assess the possible redundancy of the items included in the CD-RISC scale used. This procedure was carried out by means of a calculation of bivariate item-to-item correlations, the values of which, for the total number of cases, was ≤.≤.85. These values, following the proposals of Holgado et

al. (2019), confirmed that the items were sufficiently discriminating between each other.

Given the nature of the aims of this study, different tests were performed with the intention of analysing the data distribution, as this would determine the type of contrast analysis to be performed (parametric or non-parametric). Specifically, this process was performed using skewness and kurtosis analysis and the Shapiro Wilks and Kolmogorov-Smirnov (KS) tests, with values at p<.000. Thus, in line with George and Mallery (2011), the data obtained in the study did not follow a normal distribution.

Finally, the reliability of the resilience scale used was calculated through the Cronbach's alpha (α) and McDonald's omega coefficients. The first of these procedures should be carried out when the assumptions of tau-equivalence, unidimensionality and continuity of measurement are met (Raykov and Marcoulides, 2017). The second of the coefficients is appropriate due to its greater robustness in studies linked to the field of social sciences (Viladrich et al., 2017). For both cases, the values obtained exceeded the critical scores proposed by the literature (Taber, 2018): α=.95; ω=.96.

Table 4 presents the reliability values of the factors analysed.

Table 4

Descriptive analysis of the resilience scale

Factor	Cronbach's alpha (α)	MacDonald's omega (ω)
1	.92	.94
2	.84	.86
3	.84	.87
4	.79	.81
5	.47	.49

Dropout intention among university students

The results of the work carried out showed that 30.9% (n=104) of the students surveyed expressed their intention to drop out of university studies. The answers to the open question included in the questionnaire revealed the main reasons given by students as an explanation for their possible dropping out of university studies. The first reason was related to the excessive study workload. Some students, for example, said they felt "overwhelmed" (p3). Another of the main reasons for the intention to abandon their university studies was linked to the lack of vocation for the training they were undertaking, stating that "I like the degree, but I don't see myself working as a teacher (p119)" or "for believing that it's not really what I like" (p264). Related to this were also the students who were taking these university studies "as I could not get into my first choice" (p88). In addition, the dissatisfaction with the teaching methodology used in the degree course was notable. In this sense, one of the students stated that the classes are "monotonous, and they do not reflect the real profession of a teacher [...], with an evaluation that moves away from continuous assessment" (p337). Lastly, personal problems or circumstances that in one way or another contributed to the idea of dropping out of school were cited. In fact, students reported "family problems" (p233) and financial difficulties that "have led me to consider giving up my studies in order to work" (p198).

Levels of resilience and intention to drop out of university studies

The average level of resilience obtained was 5.15 ($\bar{x}$ =5.15; sd=.97). More specifically (table 5), it is worth noting that students indicated that they had people close to them who offered support in times of stressful situations ($\bar{x}$ =6.08; sd=1.266), were proud of their successes and academic achievements ($\bar{x}$ =5.98; sd=1.263) and solved the problems and difficulties by themselves ($\bar{x}$ =5.74; sd=1.220). In contrast, students scored lower on feeling discouraged when faced with possible situations of failure ($\bar{x}$ =4.55; sd=1.529), when taking difficult decisions affecting other people ($\bar{x}$ =4.55; sd=1.573) or believing in luck as a means of help when they did not find solutions to their problems ($\bar{x}$ =4.14; sd=1.579).

Table 5
Descriptive analysis of the resilience scale

Factor	Item	$\bar{x}$	sd
1	r24	5.55	1.262
	r12	5.34	1.350
	r11	5.60	1.262
	r25	5.98	1.263
	r10	5.37	1.417
	r23	4.84	1.547
	r17	5.16	1.379
	r16	4.55	1.529
2	r20	4.89	1.420
	r18	4.55	1.573
	r15	5.74	1.220
	r6	4.77	1.597
	r7	5.61	1.170
	r19	4.71	1.609
	r14	4.69	1.541
3	r1	5.35	1.127
	r4	4.99	1.364
	r5	5.49	1.376
	r2	6.08	1.266
	r8	4.82	1.411
4	r22	4.69	1.596
	r13	5.29	1.498
	r21	5.10	1.609
5	r3	4.14	1.579
	r9	5.57	1.483

In general terms, the contrast analyses carried out showed that students with a higher level of resilience were those with the lowest intention to drop out (U=7634.500; R=188.23; p<.000; PS_{est}=.31). Regarding the first of the factors included in the CD-RISC scale (table 6), the group of students who suggested the possibility of giving up the studies they had started were those who stated that they least liked the educational challenges (U=9641.000; R=145.20; p=.002; PS_{est}=.39), that they were less proud of their academic achievements(U=9538.500; R=144.22; p=.001; PS_{est}=.39) and saw themselves as having less capacity to tackle life challenges (U=9387.000; R=142.76; p=.001; PS_{est}=.38).

Table 6
Factor 1 contrast analysis

Item	Dropout intention	Average range	U	p	PS_{est}
r24	No	186.00	8155.500	.000	.33
	Yes	130.92			
r12	No	186.85	7957.000	.000	.32
	Yes	129.01			
r11	No	182.53	8963.500	.000	.36
	Yes	138.69			
r25	No	180.06	9538.500	.001	.39
	Yes	144.22			
r10	No	181.57	9187.500	.000	.37
	Yes	140.84			
r23	No	179.62	9641.000	.002	.39
	Yes	145.20			
r17	No	180.71	9387.000	.001	.38
	Yes	142.76			
r16	No	184.04	8611.000	.000	.35
	Yes	135.30			

With regard to the second factor (table 7), statistically significant differences were also identified between students with and without intention to drop out of university studies. Thus, students who thought at some point about dropping out of academic training were characterised by delegating the decision of their problems to other people (U=10524.000; R=153.69; p=.045; PS_{est}=.43), by not understanding that difficulties can serve as a starting point to become stronger (U=10102.500; R=149.64; p=.013; PS_{est}=.41) and by having few coping skills to handle unpleasant feelings like sadness, anger, etc. (U=9382.000; R=142.71; p=.001; PS_{est}=.38).

Table 7
Factor 2 contrast analysis

Ítems	Dropout intention	Average range	U	p	PS_{est}
r20	No	171.77	11469.500	.423	
	Yes	162.78			
r18	No	173.69	11022.500	.178	
	Yes	158.49			
r15	No	175.83	10524.000	.045	.43
	Sí	153.69			
r6	No	177.64	10102.500	.013	.41
	Yes	149.64			
r7	No	181.13	9290.000	.000	.38
	Yes	141.83			
r19	No	180.73	9382.000	.001	.38
	Yes	142.71			
r14	No	182.10	9064.500	.000	.37
	Yes	139.66			

Another aspect measured in the applied resilience scale was positive acceptance of change (table 8). As in the previous cases, the Mann Whitney U-test confirmed the existence of statistical differences between the two groups studied. Generally, those who scored lower on this third factor were students who at some point in their educational pathway expressed the possibility of not continuing their studies. This was due, among other issues, to the fact that they were people who had greater difficulties in adapting to change (U=9580.000; R=144.62; p=.001; PS_{est}=.39) and lack of self-confidence (U=9156.000; R=140.54; p< .000 PS_{est}=.37).

Table 8
Factor 3 contrast analysis

Ítems	Dropout intention	Average range	U	p	PS_{est}
r1	No	179.88	9580.000	.001	.39
	Yes	144.62			
r4	No	182.59	8950.500	.000	.36
	Yes	138.56			
r5	No	181.70	9156.000	.000	.37
	Yes	140.54			
r2	No	178.65	9868.000	.003	.40
	Yes	147.38			
r8	No	184.74	8449.500	.000	.34
	Yes	133.75			

The fourth of the factors analysed (table 9) also showed inequalities, with the group of students who intended to abandon their university studies being those who scored the lowest in the set of items proposed. Specifically, these students indicated that they found it difficult to seek help when they had difficulties (U=8598.000; R=135.17; p<.000; PS_{est}=.35). Furthermore, they stated that they were not clear about their purpose in life (U=7847.500; R=127.96; p<.000; PS_{est}=.32) and that they did not have adequate control over their life development (U=7814.500; R=127.64; p<.000; PS_{est}=.32).

Table 9
Factor 4 contrast analysis

Ítems	Dropout intention	Average range	U	p	PS_{est}
r22	No	187.32	7847.500	.000	.32
	Yes	127.96			
r13	No	187.46	7814.500	.000	.32
	Yes	127.64			
r21	No	184.10	8598.000	.000	.35
	Yes	135.17			

For the last of the factors included in the CD-RISC scale (table 10) it was found that the students who indicated that they intended to drop out of university studies were those who considered that life milestones occurred for some random reason (U=9516.000; R=144.00; p=.001; PS_{est}=.39).

Table 10
Factor 5 contrast analysis

Ítems	Dropout intention	Average range	U	p	PS_{est}
r3	No	172.49	11302.000	.316	
	Yes	161.17			
r9	No	180.16	9516.000	.001	.39
	Yes	144.00			

For all the differences found, the effect size, according to the interpretative scores proposed by Erceg-Hurn and Mirosevich (2008), was small.

DISCUSSION AND CONCLUSIONS

The aim of this research was to analysing the relationship between resilient behaviours and intention to drop out in undergraduate university students. Analyses showed that students with the highest level of resilience had the lowest intention to drop out of school. In light of these results, there is no doubt that there is a close connection between these two factors, as the most resilient students did not consider dropping out of school, which is consistent with the findings of other studies, such as Morgan (2021), who found that the most resilient students performed better academically.

And in a context of crisis such as the one we have undergone and are still experiencing as a result of the health pandemic, it is necessary to evaluate and promote the development of students' resilience to face complex situations. We agree with Jiménez (2022) that the reality that has been experienced in university education, which forced a drastic change from face-to-face to virtual teaching and the hasty assimilation of many unexpected changes, caused many students to lose control of their training process, as the situation generated high levels of stress that many were unable to manage.

To this end, university centres should implement preventive initiatives that promote skills for adapting to different situations and serve as a barrier to the serious problem of academic dropout. Because, as noted by Uriarte (2006, p.20), the "school must react to the high level of school failure and pupils at risk of maladjustment and exclusion". And one of the most effective strategies that have been used in recent times to support students in their autonomous learning process and reduce the risk of dropping out is university tutoring, which, as López-Martín and González (2018) point out, must be based on communication, close personal relationships, respect and privacy. In this attempt to prevent situations of maladjustment and dropping out of studies, Esteban *et al.* (2016) stated that the type of relationship students have with their tutoring staff has a decisive influence on their decision to stay at university and strive to achieve their academic goals. Undoubtedly, through university tutorial plans it is possible to advise and promote resilient behaviour in students, so that they toughen up in the face of adverse situations (accumulation of academic tasks at specific times of the course, mental exhaustion at assessment times, management of poor academic results, difficulties in communication with teachers, handling conflicts with classmates in group work, etc.). In the study carried out by Cotán (2021), it was concluded that a favourable classroom climate and the good relations maintained with classmates and teaching staff successfully marked university educational trajectories.

For all these reasons, in this research we position ourselves in a concept of resilience of a formative, proactive, competent and dynamic nature, which seeks

the strength and evolution of the person, based on perseverance, persistence and personal commitment. It is, in short, an attitude of life, assuming that at certain times each person must overcome adverse situations of stress, pressure, anxiety, restlessness, uncertainty, etc., without this weighing down and conditioning the possibilities of development.

Knowing how to assume and face these critical situations in academic contexts is a condition for growing, maturing and achieving the goals that each of us sets for ourselves. Higher education calls for students who are motivated towards effort, adaptable to change, with conflict resolution skills; strong, resilient learners. Because otherwise people who are not able to cope with adverse situations are very likely to fail. It was demonstrated in this research: participants who at some point in their training process considered abandoning their studies showed low resilience behaviours, such as delegating responsibility for decisions to others, inability to manage states of sadness, having little control over their life project, finding it difficult to adapt to changes or feeling a lack of self-confidence. The negative influence of all these variables on performance is evident, since, as Adell (2006) points out, motivational, attitudinal and personality factors condition academic outcomes. According to this author, variables predictive of academic performance include confidence, aspirations, valuation of intellectual work, group integration, classroom climate, participation, dedication, learning achievement, and so on. The value of resilience in coping with challenging situations is evident and Villalta *et al.* (2017) highlighted the importance of commitment, positive self-image, readiness for action, optimistic view of the future or confidence in one's own abilities for academic achievement.

If we think of students who meet these conditions, the chances of them coping satisfactorily with negative situations that may arise in the course of their training increase considerably. In this study carried out by Castaño *et al.* (2006), resourcefulness was the resilience factor with the strongest influence on academic achievement. Research by Lora-Loza (2020) also showed a positive correlation between extrinsic motivation and academic performance. In others, such as that by Sánchez-García *et al.* (2018), it was observed that university students with emotional disturbances showed poor performance in their studies. Finally, the research by Espinosa-Castro (2020) confirmed that stress and low resilience affected academic performance.

As a general conclusion of the research, resilience is significantly associated with intention to drop out, as it was the students who showed a lack of confidence who were unable to take control of their own projects. Similarly, those who delegated their responsibilities to others were those who at some point had considered leaving university education. The results coincide with those of other studies, such as that of Navarro *et al.* (2020), who also found stress-generating academic situations,

such as work overload, dissatisfaction with teaching work, difficulties in adapting to changes, the stress of classes or the pressure of assessment.

The results obtained in this research should be taken into consideration and programmes and activities that foster leadership, motivation, academic commitment, self-regulation, confidence, planning, responsibility and the ability to adapt to complex situations should be implemented in universities. In this way, personal growth and the construction of consistent educational and professional projects throughout life will be strengthened. These achievements will be possible if schools are also equipped with good professionals, teachers and tutors who practise resilient behaviour. Because making resilient students requires teachers who develop empathy and positive thinking in their classes and who put skills into practice that allow them to modify negative attitudes in their students As Day and Gu (2015) point out, building resilient learners is about having school leaders, resilient teachers for resilient schools. In this line, the work of Olmo-Extremera *et al.* (2021) is notable, emphasising the importance of building resilience in schools through leadership action, in order to strengthen relational trust, professional collaboration and mutual support, etc., which will undoubtedly lead to the development of better-quality teaching.

Although the work confirms the relationship between resilience and intention to drop out of school, the results should be interpreted with a number of limitations in mind. In principle, and despite the fact that the levels of sample representativeness of the work carried out meet statistical standards, the findings cannot be transferred to all degree programmes or to other universities, given that the realities and contexts could be different. This leads to the need to carry out work that allows for a more in-depth study of the link between the variables studied in order to generalise the results obtained. In addition to the research initiated, the challenge is to carry out studies based on longitudinal methodological designs to analyse how thinking about dropping out of university studies is constructed. Finally, it would also be interesting to carry out work of a qualitative nature, as this will allow us to delve deeper into the reality of this problem from the students' point of view.

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