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Article

Who Are the Freshmen at Highest Risk of Dropping Out of University? Psychological and Educational Implications

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Abstract: It is estimated that one in three students drop out of university by the end of the first year of study. Dropping out of university has significant consequences, not only for the student but also for the university and for society as a whole. A total of 1.154 Italian freshmen were involved in this study and were divided based on their intention to dropout from university. The intention to dropout was assessed using five questions, and motivation was assessed through the Academic Motivation Scale. Differences in socio-demographic factors, extra-curriculum activities, academic characteristics, and academic motivation between freshmen with low and high dropout risks were assessed for highlighting potential intervention for limiting dropout rates. The majority of the freshmen were female, from low-income families, had attended high school, and lived out of town; the most represented field of study was health professions. The results indicate that the variables increasing the likelihood of belonging to the high dropout risk group are as follows: unsatisfactory relationships with lecturers/professors and fellow students, low income, amotivation, and extrinsic motivation. This study underlines the importance of adopting new teaching approaches that include spaces and time dedicated to fostering relationships, supporting academic success, and promoting the psychosocial well-being of students.

Keywords: university freshmen; dropout intention; motivation; relationships; education; teaching

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1. Introduction

Education is a fundamental driver for the full and active integration into an increasingly complex labor market that requires new skills and specializations. Despite a decrease between 2013 and 2023 [1] in the overall proportion of young people who leave education early, the number of students deciding to drop out of university remains significant. Some studies reveal that in many European countries, the percentage of young adults (25–34 years old) with a degree is still below 50% [2]. Italy remains among the countries with the highest incidence of early school leavers [3]. Supporting the urgency of addressing university dropouts are the 2022 Istat data on the correlation between educational attainment and employability; among those under 35 (with a degree obtained within the last 1 to 3 years), the employment rate rises to 74.6% among graduates (+6.6 and +7.1 points compared to 2021), exceeding the level reached before the 2008 crisis by 4 points [4].

Dropping out of university is a complex phenomenon with multiple causes [5], including low motivation, inadequately considered study path choices, and a low ability to adapt to new learning environments [6]. Additionally, there are discrepancies between expectations and reality, difficulties in adapting to university demands in terms of competence,

autonomy, organization, and the emotional management of the complex academic experience [7]. The academic environment can trigger a wide variety of emotions, some of which are particularly associated with the intention to dropout, with anxiety playing a significant role [8]. Moreover, university years coincide with a period of life marking the transition from adolescence to adulthood. During this phase, numerous changes occur, presenting significant developmental challenges that can inspire growth opportunities or, conversely, subject young adults to substantial pressures [9]. These pressures, if not well managed, can affect not only the students' quality of life and their psychological well-being [10], but also their academic performance [11], leading to extended course durations and/or dropout phenomena [12].

Dropout impacts individuals and the community in social and economic terms. It undermines the individual's sense of self-efficacy and adequacy [13] and hinders the ability to find a job that enhances personal development and social integration prospects, thus increasing social inequalities. Dropout is also a crucial indicator of the quality of educational systems for society as a whole: it reflects the universities' difficulties in becoming educational communities and networking with their surrounding areas, constituting both a cause and consequence of a lack of growth and a democratic deficit in social mobility mechanisms [3].

In light of all these reasons, this study aims to examine the dropout phenomenon by analyzing the intentions to leave university in a sample of Italian freshmen. Several studies report that the first year of university is the most critical and that freshmen have the highest dropout rate: one in three students leave university by the end of the first year [14]. In Italy, it is also estimated that dropout rates are particularly high between the first and second year of university [15]. Therefore, it is deemed necessary to better understand the risk factors for freshmen dropout to offer targeted support programs for students during this critical period.

The aims of this study were as follows: (a) to identify two clusters of freshmen with high versus low intentions to dropout; (b) to perform a correlation analysis of the Academic Motivation Scale (AMS) with the two identified groups (high versus low intention to dropout); and (c) to carry out an association analysis with other environmental variables to identify which aspects are associated with dropout in order to promote targeted interventions to limit dropout.

2. Materials and Methods

2.1. Study Design

The present cross-sectional study took place in a University in Northern Italy, and involved 3.756 incoming freshmen aged 18 years or over. The freshmen were recruited in June 2022. All freshmen received an email with a detailed description of the study and a request to participate in a web survey, together with the link to access the survey. Freshmen were provided all the necessary information and agreed to participate in the study by completing a form establishing informed consent. Organizational ethic approval was obtained from Board of Directors of Brescia University (approved with provision no. 330 on 22 November 2021). The study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments. Freshmen were informed that their participation was confidential, anonymous, not compulsory, and that their personal data would be respected. The web-survey was created with LimeSurvey (accessed on 1 May 2022), a proprietary survey tool that allows completely anonymous data collection. In order to maximize the response rate, we used user-friendly questions, choosing close-ended options for answers and sending reminders [16].

2.2. Instruments

Freshmen were required to complete an assessment form, which provided information regarding their socio-demographic data, academic characteristics, and extra-curriculum activities.

The freshmen's intention to dropout were assessed with 5 questions derived from the Hardre and Reeve scale [17], adapted by Biasi et al. [18]. The 5 questions were

1. How often do you think about dropping out of university and doing something else?
2. How often do you feel insecure about continuing your university studies year after year?
3. How often do you consider not continuing your university studies?
4. How often do you think of dropping out of university?
5. How often do you think of dropping out of your program to take up another one?

The answer options for each item are based on a 5-point Likert scale ranging from 1 (Never) to 5 (Always). The intention to dropout was considered both as a continuous variable, using the sum of the scores from the 5 questions, and as a categorical variable, forming 3 groups of freshmen based on their intention to dropout: low, moderate, and high (see the statistical analysis section for details on how the groups were constructed and the corresponding score cut-offs).

Moreover, the Academic Motivation Scale (AMS) was administered to the sample [19]. The AMS is a questionnaire developed on the basis of the Self-Determination Theory [20]. This theory posits that behavior can be intrinsically motivated, extrinsically motivated, or amotivated. Intrinsic motivation refers to performing an activity for oneself and the pleasure and satisfaction derived from participation. Extrinsic motivation pertains to a wide variety of behaviors which are engaged in as a means to an end and not for their own sake. Deci et al. [20] have proposed that three types of extrinsic motivation can be ordered along a self-determination continuum: external, introjection, and identification regulation. In external regulation, the behavior is regulated through external means such as rewards and constraints. With the introjected regulation, the individual begins to internalize the reasons for his/her actions. However, this form of internalization, while internal to the person, is not truly self-determined since it is limited to the internalization of past external contingencies. To the extent that the behavior becomes valued and judged as important for the individual, and especially if it is perceived as being chosen by oneself, then the internalization of extrinsic motives becomes regulated through identification. Amotivation refers to individuals who do not perceive contingencies between outcomes and their own actions. They are neither intrinsically nor extrinsically motivated. The amotivated individuals experience feelings of incompetence and expectancies of uncontrollability; they perceive their behaviors as caused by forces out of their own control. The AMS is composed of 20 items rated on an 11-point Likert scale ranging from 0 (Not at all true) to 10 (Completely true). The items are grouped into the following sub-scales: amotivation (no regulation), intrinsic regulation, and extrinsic motivation. The extrinsic motivation includes external regulation, introjected regulation, identified regulation. The total score of the AMS ranges from 0 to 40 where a higher score corresponds to a greater adherence to the motivational construct of the single sub-scale. The AMS also includes the calculation of the Relative Autonomy Index (RAI), a scoring method in which each regulation sub-scale is calculated before being weighted and combined with other regulations according to their assumed position on the Self-Determination Theory continuum. The result is a single score representing the degree of relative autonomy. To calculate the index, based on the indications of Vallerand and Ratelle [21], a weight equal to +2 is attributed to intrinsic regulation, +1 to identified regulation, −1 to introjected regulation, and −2 to external regulation. The Italian version showed good psychometric properties, with Cronbach's alpha values ranging from 0.73 to 0.91 [22].

An additional dataset, including socio-demographic characteristics of the freshmen who dropped out the university in 2021, was used to validate the use of the five questions derived from the Hardre and Reeve's scale for defining the freshmen group with a high intention to drop.

2.3. Statistical Analysis

The characteristics of the freshmen sample were described in terms of mean and standard deviation (SD) for the continuous variables and in terms of the frequency and percentage for the categorical ones. Group comparisons were performed by *t*-tests or Anova tests (or corresponding Mann–Whitney or Kruskal–Wallis non-parametric tests) for the numerical variables and by Chi-squared tests or tests for proportion for the categorical variables. The distribution of the sum of the five questions on dropout intention was analyzed in terms of quantile (33rd and 66th percentiles) for defining the group of freshmen in high versus moderate versus low intentions to dropout. Correlation analysis between dropout intention and the Academic Motivation Scale (AMS) was performed by Pearson's correlation index r. Logistic regression models (both univariable and multivariable) were performed to analyze the association between dropout intention groups (high versus low) and socio-demographic data, academic characteristics, extra-curriculum activities, and AMS sub-scales. Results were evaluated by Odds Ratio (OR) and 95% confidence intervals.

3. Results

3.1. Characteristics of Freshmen and Dropout Intention

The response rate was 38.5% (1.446/3.756). A total of 292 freshmen provided no survey answer, except for the socio-demographic variables. A comparison between responders and no responders was performed, and no differences were found in terms of age and income (Table S1). A difference was found in terms of female percentage. The gender difference will be appropriately taken into account in all subsequent analyses. The number of freshmen who completed all of the questionnaires was therefore 1.154 (see Table 1). Most of the freshmen were female with low income, came from a high school, and lived out of town; the average age was 20.95 (SD = 4.1). The average high school grade (range 60–100) was 85.4 (SD = 11.8). The most represented fields of study were health professions, economics, and engineering.

Table 1. Characteristics of freshmen.

	N = 1.154	
	N	**%**
	Gender (f)	63.5%
Income bracket		
Low (≤36,000 euro)	626	54%
Medium-high (>36,000 euro)	528	46%
Course of study		
Economics	278	24.1%
Law	87	7.5%
Engineering	255	22.1%
Medicine	150	13%
Health professions (nurses, dieticians, etc.)	300	26%
Other [ref]	84	7.3%
Type high school attended		
Vocational school	92	8%
Technical school	411	35.6%
High school	651	56.4%
Students' abode		
In town	161	14%
Out of town	654	56.6%
Other	339	29.4%

Three groups of freshmen were defined in terms of the distribution of the dropout intention score (as the sum of the five dropout intention questions) by using the 33rd and 66th percentiles equal to 8 and 13, respectively (Figure S1). In detail, the group with high, moderate, and low dropout intentions have been defined as follows:

- high dropout intention: score $\geq$ 14, i.e., freshmen responded more frequently with "often = 4 and always = 5" (n = 332);
- low dropout intention: score $\leq$ 7, i.e., freshmen responded more frequently with "never = 1 and rarely = 2" (n = 354);
- moderate dropout intention: 8 $\leq$ score $\leq$ 13, i.e., freshmen responded more frequently with "sometimes = 3" (n = 468).

To assess the reliability of the definition of freshmen dropout intention groups based on the five dropout intention questions, a comparison was carried out for the socio-demographic characteristics between the defined high dropout intention group and the freshmen who dropped out of university in 2021. The two groups appeared comparable to each other: slight differences were found only for the distribution of the course of study and high school grade (note that although there was no evidence of large differences in absolute terms, the significance was due to the large sample size). Interestingly, the low dropout intention group appeared evidently farther from freshmen who dropped out in 2021 than the high intention group: the questions on dropout intention appeared effective in identifying a sub-group of freshmen similar to those who actually dropped out.

3.2. Characteristics of Freshmen with Low, Moderate, and High Intention to Dropout

In Table 2, the differences among the three groups are reported and defined in terms of the dropout intention score. Statistically significant differences were found for the following variables: income bracket, type high school attended, relationship with fellow students, and relationship with lecturers/professors. The high dropout intention group showed a lower income bracket, more frequently attended a technical school, and was less satisfied with relationships with fellow students and lectures/professors. The found significances were due to the comparison between low and high categories.

Table 2. Characteristics of the three dropout intention groups.

	Dropout Intention			
	Low N = 354 N (%)	**Moderate N = 468 N (%)**	**High N = 332 N (%)**	***p*-Value #**
Income bracket				
Low ($\leq$36,000 euro)	177 (50)	253 (54.1)	196 (59)	**0.05 ***
Medium-high (>36,000 euro)	177 (50)	215 (45.9)	136 (41)	
Type high school attended				
Vocational school	24 (6.8)	32 (6.8)	36 (10.8)	**<0.001 ***
Technical school	101 (28.5)	173 (37)	137 (41.3)	
High school	229 (64.7)	263 (56.2)	159 (47.9)	
Relationship with fellow students				
Quite dissatisfied	15 (4.2)	49 (10.5)	37 (11.1)	**<0.001 ***
Quite satisfied	142 (40.1)	189 (40.4)	114 (34.3)	
Very dissatisfied	10 (2.8)	20 (4.3)	30 (9)	
Very satisfied	135 (38.1)	127 (27.1)	54 (16.3)	
Neither satisfied nor dissatisfied	52 (14.7)	83 (17.7)	97 (29.2)	
Relationships with lecturers/professors				
Quite dissatisfied	21 (5.9)	39 (8.3)	35 (10.5)	**<0.001 ***
Quite satisfied	128 (36.2)	138 (29.5)	56 (16.9)	
Very dissatisfied	8 (2.3)	17 (3.6)	35 (10.5)	
Very satisfied	38 (10.7)	20 (4.3)	8 (2.4)	
Neither satisfied nor dissatisfied	159 (44.9)	254 (54.3)	198 (59.6)	

Anova or Kruskal–Wallis test for continuous variables and Chi-squared test for categorical variable. * Post hoc significant group comparison for low vs. high categories.

With respect to the extra-curriculum activities, the data show that freshmen more often spent their time engaged on social networks, in social activities (e.g., friends, dancing, etc.), in outdoor activities, on video games/the internet, and playing or listening to music

(Table 3). Compared to statistically significant differences, the only difference found among the three groups concerned music (between high and low groups). Freshmen who were engaged more often in musical activities showed less intention to dropout.

Table 3. Extra-curriculum activities of the three dropout intention groups.

	Dropout Intention			
	Low (N = 354)	**Moderate (N = 468)**	**High (N = 332)**	***p*-Value #**
Musical activities				
Never/rarely	119 (33.6%)	181 (38.7%)	132 (39.8%)	**0.015 ***
Sometimes	66 (18.6%)	80 (17.1%)	78 (23.5%)	
Often	166 (46.9%)	200 (42.7%)	116 (34.9%)	
Video games/internet				
Never/rarely	56 (15.8%)	79 (16.9%)	64 (19.3%)	
Sometimes	114 (32.2%)	155 (33.1%)	95 (28.6%)	0.667
Often	181 (51.1%)	227 (48.5%)	167 (50.3%)	
Missing	3 (0.8%)	7 (1.5%)	6 (1.8%)	
Arts				
Never/rarely	294 (83.1%)	386 (82.5%)	266 (80.1%)	
Sometimes	43 (12.1%)	63 (13.5%)	38 (11.4%)	0.131
Often	14 (4.0%)	12 (2.6%)	22 (6.6%)	
Missing	3 (0.8%)	7 (1.5%)	6 (1.8%)	
Social network				
Never/rarely	25 (7.1%)	30 (6.4%)	29 (8.7%)	
Sometimes	56 (15.8%)	72 (15.4%)	59 (17.8%)	0.656
Often	270 (76.3%)	359 (76.7%)	238 (71.7%)	
Missing	3 (0.8%)	7 (1.5%)	6 (1.8%)	
Outdoor activities				
Never/rarely	49 (13.8%)	80 (17.1%)	67 (20.2%)	
Sometimes	109 (30.8%)	171 (36.5%)	107 (32.2%)	0.064
Often	193 (54.5%)	210 (44.9%)	152 (45.8%)	
Missing	3 (0.8%)	7 (1.5%)	6 (1.8%)	
Social activities				
Never/rarely	48 (13.6%)	69 (14.7%)	58 (17.5%)	
Sometimes	106 (29.9%)	147 (31.4%)	100 (30.1%)	0.668
Often	197 (55.6%)	245 (52.4%)	168 (50.6%)	
Missing	3 (0.8%)	7 (1.5%)	6 (1.8%)	

Anova test for continuous variables and Chi-squared test for categorical variable. * Post hoc significant group comparison for low vs. high categories.

3.3. Correlation Between Dropout Intention and the Academic Motivation Scale (AMS)

Considering the dropout intention variable as continuous (i.e., the sum of the scores from the five questions on the intention to dropout), the results show that the intention to dropout was directly correlated with amotivation, external regulation, and introjected regulation (r = 0.41, r = 0.36, r = 0.15, respectively): high scores in the intention to dropout correlated positively with amotivation and external regulation. The intention to dropout was inversely correlated with intrinsic regulation and identified regulation (r = −0.43 and r = −0.4, respectively). The intention to dropout was also highly and negatively correlated with the RAI index (r = −0.77; Figure S2). All correlations are statistically significant ($p < 0.05$).

3.4. Association Between Dropout Intention and Socio-Demographic, Academic Features, and the Academic Motivation Scale (AMS) Sub-Scales

Based on the above results where differences were found only between high versus low dropout intention groups, the subsequent analyses were carried out focusing on these

two groups. Table 4 shows the results of the (univariable) logistic models for the socio-demographic and academic variables found to be associated with the group variable (with high and low dropout intention groups: low intention dropout reference group). The most significant Odds Ratio in predicting the high dropout intention among all the variables examined appears to be the relationships with lecturers/professors (OR = 0.05, 95% CI 0.02–0.13). This result means that considering relationships with lecturers/professors as very satisfactory (with respect to very dissatisfactory category) decreased the probability of being in the high dropout intention group by 95% (compared to being in the low dropout intention group). Similarly, considering relationships with fellow students as very satisfactory also decreased the probability of being in the high dropout intention group by 87% compared to being in the low dropout intention group (OR = 0.13; 95% CI 0.05–0.28). Other significant results concern income bracket: the higher the income, the lower the probability of dropout (OR = 0.78, 95% CI 0.63–0.96). Moreover, having attended a high school (with respect to vocational school category) decreased the probability of being in the high dropout intention group by 54% compared to being in the low dropout intention group (OR = 0.46; 95% CI 0.26–0.80). It is interesting to note that always engaging in outdoor activities decreased the probability of being in the high dropout intention group by 68% compared to being in the low dropout intention group (OR = 0.32; 95% CI 0.13–0.76).

Table 4. Univariable and multivariable logistic regression models: dependent variable dropout intention (high versus low category).

Independent Variables	OR	95%CI	*p*-Value
Income bracket	0.78	0.63–0.96	**0.018**
Type high school attended			
Vocational school [ref]	--	--	--
Technical school	0.90	0.50–1.60	0.733
High school	0.46	0.26–0.80	**0.006**
Course of study			
Economics	0.95	0.46–1.90	0.885
Law	0.37	0.16–0.83	**0.019**
Engineering	0.59	0.28–1.19	0.147
Medicine	0.11	0.05–0.25	**<0.001**
Health professions (nurses, dieticians, etc.)	0.47	0.23–0.93	**0.033**
Other [ref]	--	--	--
Relationships with fellow students			
Very satisfied	0.13	0.05–0.28	**<0.001**
Quite satisfied	0.27	0.11–0.55	**<0.001**
Neither satisfied nor dissatisfied	0.62	0.27–1.33	0.239
Quite dissatisfied	0.82	0.32–2.07	0.681
Very dissatisfied [ref]	--	--	--
Relationships with lecturers/professors			
Very satisfied	0.05	0.02–0.13	**<0.001**
Quite satisfied	0.10	0.04–0.22	**<0.001**
Neither satisfied nor dissatisfied	0.28	0.12–0.60	**0.002**
Quite dissatisfied	0.38	0.14–0.94	**0.044**
Very dissatisfied [ref]	--	--	--
Musical activities			
Always	0.70	0.42–1.15	0.158
Often	0.69	0.45–1.04	0.078
Sometimes	1.17	0.75–1.82	0.490
Rarely	1.34	0.79–2.35	0.268
Never [ref]	--	--	--
Outdoor activities			
Always	0.32	0.13–0.76	**0.011**
Often	0.49	0.21–1.08	0.082
Sometimes	0.55	0.23–1.21	0.146
Rarely	0.70	0.28–1.66	0.423
Never [ref]	--	--	--

Table 5 shows the results of the (univariable) logistic models where the association between the AMS sub-scales and the group variable (with high and low dropout intention categories: low intention dropout reference group) was assessed. The amotivation, external regulation, and introjection regulation were directly associated with the dropout intention: a one point increase in the score for these scales corresponds to an increase in the probability of being in the high dropout intention group (with respect to being in the low dropout intention group) of 15%, 12%, and 3%, respectively. Conversely, the identification regulation, intrinsic motivation sub-scale, and RAI index were inversely associated with the dropout intention: as the score on these sub-scales and index increase by one point, the probability of being in the high dropout intention group (with respect to being in low dropout intention group) decreases by 10%, 15%, and 4%, respectively. Interestingly, the OR for the amotivation scale and RAI index also remained significant and unchanged in the multivariable logistic models including the significant variable found in Table 4. This means that the amotivation and regulation scales (since the RAI is the weighted sum of these) remained associated with dropout intention irrespective of other factors. In addition, the OR of the variable 'relationships with lecturers/professors' also remains unchanged in the multivariable model. Taking together, these results suggest that AMS scale and the relationship with professors are effective features independent of each other in which focused ad hoc intervention is required to limit the freshmen dropout.

Table 5. Univariable logistic regression models: dependent variable dropout intention (high versus low category).

Independent Variables	OR	OR 95%CI	*p*-Value
Amotivation	**1.15** *	1.12–1.19	<0.001
External regulation	1.12	1.09–1.15	<0.001
Introjection regulation	1.03	1.02–1.05	<0.001
Identification regulation	0.90	0.88–0.92	<0.001
Intrinsic motivation	0.85	0.82–0.88	<0.001
RAI	**0.96** *	0.95–0.97	<0.001

* Variables that remained significant in the multiple logistic models when all significant predictors of univariate model were included. The RAI was used instead of the regulation sub-scales because the RAI is the weighted sum of the regulation sub-scales.

4. Discussion

This study aimed to identify which aspects are associated with dropout intention in a sample of freshmen, who are students at risk of leaving university between the first and second year of study [14]. The results show that 28% of freshmen, nearly one in three students, are at high risk of dropping out. This percentage is consistent with the data on students who actually dropped out in 2021 between the first and second year at the university where the study was conducted.

This study displays that one of the most important variables in predicting a high risk of university dropout is the quality of the relationship with lecturers/professors. In fact, freshmen who were less satisfied had a higher probability of being at risk of dropping out. This result is consistent with that obtained in other studies, showing that the relationships forged between lecturers/professors and students (when positively rated by the student body) contribute to academic results and the completion of degree studies [23,24]. These data underline the importance for lecturers/professors to develop a good relationship with students. This could positively influence not only the academic experience of freshmen but also the effectiveness of teaching, consequently reducing the risk of drop out. A satisfactory relationship with lecturers/professors could help students to improve their motivation and engagement, as feeling supported and valued by their teachers would encourage them to actively participate in classes and dedicate more effort to their studies. Furthermore, it could enhance learning, as students who feel comfortable with their lecturers/professors tend to interact more, e.g., asking more questions, seeking clarification during lectures, etc. This would facilitate deeper learning and a better understanding of the subjects. If

a student perceives a positive relationship with their lecturers/professors, it could also reduce stress levels associated with exams and academic performance, which are typically very high among university students [25].

Another variable that was found to decrease the likelihood of belonging to the high-risk freshman drop out group is the quality of relationships with fellow students. Freshmen who are satisfied with their relationships with other students and thus experience greater social well-being are less likely to have a high risk of dropping out. Interactions with other students are beneficial for many reasons. It can help to clarify doubts and can allow students to share study materials, making learning more effective and less isolating. Fellow students can provide emotional support during difficult times, such as exams or intense study periods. A good relationship with fellow students creates a less competitive and more collaborative environment, reducing distress. Knowing that one can rely on others who are going through similar experiences helps to alleviate anxiety and loneliness, reinforcing the confidence in the university experience and making freshmen more likely to continue their studies. These data suggest the importance of the university facilitating socialization opportunities for freshmen and creating spaces for this, recognizing the educational value of community engagement [26].

Another finding relates to income bracket, as freshmen from low-income families are the most at risk of dropping out of university. This can be attributed to various economic and psychosocial factors [27]. Freshmen with lower incomes may have greater difficulty covering university expenses. The lack of financial resources might force them to work while studying, which could increase their stress load, reduce the time available for their studies, and lead to poorer academic performance [28]. Additionally, these students may feel greater pressure to provide financial support to their families or to enter the job market quickly. This pressure might lead them to consider dropping out of university to start working and earning money sooner. Furthermore, these students may experience worse psychological health (e.g., binge drinking, less sleep, etc.) [28,29], which could lead to a sense of inadequacy or isolation compared to their fellow students from more privileged economic backgrounds. This psychosocial and economic disparity could result in a feeling of exclusion, undermining self-confidence and motivation to continue their studies. This result calls for reflection within the field of education on proposing new forms of social inclusion [30,31].

Motivation is another variable that has proven to be very important in predicting intentions to drop out of studies. This study highlights that freshmen with amotivation or extrinsic motivation are at a higher risk of dropping out. The absence of intrinsic motivation leads to lower engagement with and persistence in continuing studies, as the student is driven more by external factors than by personal interest or passion [19]. The lack of intrinsic motivation may also be influenced by reduced interpersonal support and a sense of belonging to the academic community. Indeed, according to Self-Determination Theory, there are three fundamental psychological needs that are essential for human growth, well-being, and motivation: autonomy, competence, and relatedness [20]. Not having positive relationships with lecturers/professors and fellow students may interfere with motivation, as feeling a lack of belonging to a group and not feeling supported in social relationships does not help freshmen in pursuing their passions and interests more authentically [32]. This result highlights the importance of working to improve freshmen's motivation, which can be achieved by a multifaceted approach that takes into account the complexity of the phenomenon. First of all, it would be important to create a welcoming environment that fosters an inclusive climate where students feel valued and part of a community [26]. Support should be provided to help students navigate the new university environment and develop study skills; promoting autonomy by encouraging students to make decisions about their study paths and explore their interests, thus making learning more personal and meaningful; and employing more active and engaging teaching methods that stimulate students' interest and commitment [33].

Another finding of this study is that the high school from which freshmen come appears to be predictive of their likelihood of dropping out. This highlights the need to support freshmen who attended vocational schools in the challenges they may face during the transition from this type of high school to university [34]. On the other hand, vocational schools should work on ensuring that students make informed choices regarding potential university pathways by designing programs for in-depth study and development that are not always offered in this type of high school.

Finally, this study has shown that freshmen who engage in outdoor activities are less likely to belong to the high-risk dropout group. This finding demonstrates the positive value of the relationship with the environment, which is a bond that must be maintained and nurtured over time. It is an essential part of our humanity and an opportunity for renewal that allows us to approach different educational contexts with open minds and perspectives [35].

This study has some limitations, mainly due to the generalizability of the results, since data were only gathered from freshmen of a single university. Additionally, the use of web-based surveys may exclude non-digitalized freshmen, who may have different socio-economic and lifestyles characteristics compared to those who have Internet access. This survey might result in under-representing certain social groups and introducing significant bias.

5. Conclusions

The results of this study suggest that a greater sense of belonging to the university, fostered by having better relationships with professors and fellow students, could reduce the risk of freshmen dropout. Freshmen are more likely to persevere with their studies if they feel well adapted in the university context; in turn, it is likely that a greater sense of connection positively affects motivation. For this reason, university should foster good relations as part of their duty to care for their students' health and well-being. It is vital to improve university teachers' initial and continuing training so they have the knowledge and skills they need to effectively play their role in the university. It is necessary to support professors in adopting new teaching methodologies, integrating technology into their instruction, and developing a student-centered approach. These new teaching methodologies should also encourage the development of soft skills such as communication and collaboration, which could help foster better relationships among students. This would help to create a more inclusive environment that allows students from economically disadvantaged backgrounds to interact and build good connections. We need to envision new teaching approaches that include spaces and time dedicated to fostering relationships, supporting academic success, and promoting the psychosocial well-being of students. Teaching methods, professor–student relationships, and psychological well-being are three important factors in shaping students' educational experience, which can significantly influence the risk of dropping out. These factors likely interact in complex ways, creating a circular relationship that impacts students' retention and success at university. Active and engaging teaching methods tend to promote greater student participation and interest. When students feel involved in the educational process, their intrinsic motivation increases. Furthermore, a positive relationship with professors, based on support, trust, and mutual respect, could be associated with improved psychological well-being. Students who feel welcomed and valued by their professors are more likely to develop a sense of belonging and security, which reduces anxiety and stress related to studying and, consequently, the risk of dropping out. Further studies are needed to explore the relationship between all of these factors in more depth.

Supplementary Materials: The following supporting information can be downloaded at https://www.mdpi.com/article/10.3390/educsci14111201/s1, Table S1: Comparison between responder and non-responder in terms of socio-demographic variables; Table S2: Comparison between the high dropout intention group and the freshmen who dropped out in 2021; Figure S1: Distribution of

Dropout intention score (as sum of the five questions on dropout intention); Figure S1: Pearson's r correlation matrix: dropout intention score and Academic Motivation Scale (AMS) sub-scales.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

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