FACTORS INFLUENCING INTEGRATION INTO HIGHER EDUCATION AND SATISFACTION WITH ACADEMIC LIFE IN CONTEXT OF BULLYING AND HAZING PRACTICES

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Abstract

Entering higher education (HE) represents a significant milestone for many students, shaping their choices and future aspirations. Unfortunately, bullying and hazing are common during this transition, often linked to traditional initiation practices. Understanding the impact of these negative experiences on students' integration, satisfaction with academic life, and academic performance is crucial for educational institutions to develop effective strategies for a supportive and welcoming environment.

In continuation of previous research on student integration in higher education, a study was conducted with a sample of 574 students who enrolled in higher education in Portugal during the 2023-2024 academic year. The primary aim was to identify the most influential factors related to bullying during hazing and to examine their effects on students' satisfaction with academic life, academic integration, and performance. Additionally, the study sought to determine whether satisfaction with academic life mediates the relationship between bullying experiences and academic integration.

The survey included socio-demographic variables (e.g., gender, age group), the Assessment Scale of Bullying Situations in Hazing of Higher Education (ASBSHHE), the Abbreviated Scale of Student Satisfaction with Student Life (ASSSL), and constructs measuring academic integration and performance. Data analysis was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) to address the research questions.

After ensuring all requirements for the reflective model were met (internal consistency reliability, convergent and discriminant validity), the structural model was evaluated to test the hypotheses. Significant findings included: positive and negative relationships with hazing practices are the most influential factors identified by the ASBSHHE; bullying situations during hazing significantly affect both academic integration and student life satisfaction; and satisfaction with student life mediates the relationship between bullying during hazing and academic integration.

These results highlight the importance of addressing bullying and hazing in higher education. Educational institutions can use these insights to develop interventions aimed at preventing abusive behaviours and promoting better integration and satisfaction among new students, ultimately enhancing their academic success and well-being.

Keywords: Integration of university students, bullying and hazing practices, satisfaction with academic life, PLS-SEM.

1 INTRODUCTION

The transition from high school to higher education is an important milestone in students' lives and presents several challenges: academically (the need for more independent study), socially (adapting to a new environment, forming new relationships, and often relocating to different geographic regions, far from home), financially (managing tuition fees and living expenses, particularly for students who have relocated), and mentally (e.g., anxiety, stress, and doubts regarding their academic path).

Some activities, both academic and extracurricular, can facilitate students' social integration in the university environment (e.g., [1, 2, 3]). Interactions with peers and participation in this type of activities promote the students' sense of belonging and integration (e.g., [4]), as well as long-term commitment to the academic institution.

Initiation rituals, including practices such as hazing, can increase student engagement and retention by helping students build supportive peer networks, which are relevant factors for academic persistence.

However, If, for some, participating in hazing can enhance the development of social and leadership skills, the abuse and humiliation experienced by some freshmen are criticised by several authors (e.g, [5, 6, 7]), as they may put their physical and psychological integrity at risk. In this context, Fávero et al. [8] state that “Hazing plays an important role in the adaptation and integration of students and is often referred to as an environment of mutual help and integration, but, even when not admitted by students, violence is always present, both in the form of abuse of power, as well as active violence, with predominance of physical and sexual violence”.

According to Heffner and Antaramian [9], there is a positive relationship between life satisfaction and academic achievement. On the contrary, Sánchez-López, León-Hernández, and Barragán-Velásquez [10] found a negative relationship between a psychological well-being state (a variable that includes life satisfaction) and good academic performance, reporting that students with higher scores on the well-being scale tended to show poorer academic performance. On the other hand, some authors, such as Malik, Nordin, Zakaria, and Sirun [11], did not validate the relationship between life satisfaction and academic performance among undergraduate students.

A study conducted by Gilman and Huebner [12] suggest that youth reporting high global life satisfaction also reported significantly higher scores on all measures of academic, interpersonal, and intrapersonal functioning than youth reporting low life satisfaction. Youth reporting high global satisfaction reported more positive relationships with others (including peers and parents), less intrapersonal distress (such as anxiety and depression), higher levels of hope, and a greater sense of personal control than youth reporting low global satisfaction.

The present study emerged following other previous studies on student integration in higher education carried out in Portugal (e.g., [2,3]), essentially standing out from the previous ones by providing a conceptual model—path diagram within the scope of Partial Least Squares Structural Equation Modelling (PLS-SEM) and because it is more up-to-date data.

The main purpose was to identify the most influential factors related to bullying during hazing and to examine their effects on students' satisfaction with academic life, academic integration, and academic performance. Additionally, the study aims to verify whether satisfaction with academic life mediates the relationship between bullying experiences and academic integration.

Section 2 presents the research hypotheses and the characterization of the sample. It also describes the items corresponding to the scales and academic variables included in the questionnaire used for data collection, along with the conceptual model (path diagram) to be tested. Section 3 contains the most relevant results of the study. Finally, Section 4 synthesises the main conclusions and practical implications of the research.

2 METHODOLOGY

A study was conducted with a sample of 574 students who had enrolled in higher education in Portugal during the 2023-2024 academic year (first-year higher education students in Portugal). The participants are mostly female (59.4%), and the majority (81.6%) are 18 years old or younger.

For data collection, a questionnaire was used that, in addition to sociodemographic variables, includes te Assessment Scale of Bullying Situations in Hazing of Higher Education (ASBSHHE) [13] and the Abbreviated Scale of Student Satisfaction with Student Life (ASSSL) [14], as well as the variables Academic Integration (AI) and Academic Performance (AP).

The Assessment Scale of Bullying Situations in Hazing of Higher Education (ASBSHHE) allows to assess students' relationship with the hazing [13]. The final version of this scale consists of 15 items, 5 (items 8,11,12,14 e 15) of which are reversed (see Table 1), measured on a Likert Scale, with five response levels (1 -Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree and 5-Strongly agree).

Assessment Scale of Bullying Situations in Hazing of Higher Education (ASBSHHE) consists of three factors or dimensions (Positive relationships with hazing practices (PRHP: six items); Negative relationships with hazing practices (NRHP: six items); and Social dimension (DS: three items), whose constituent items are presented in Table 1 (left column). Thus, the ASBSHHE and its dimensions allow a partial and total analysis of the relationship that the individual has with hazing.

The Abbreviated Scale of Student Satisfaction with Student Life (ASSSL) [14] consists of seven self-report items, presented in Table 1, on a Likert scale ranging from 1 – Strongly Disagree (SD) to 6 – Strongly Agree (SA), with intermediate positions defined by 3. In this scale, items 3 and 4 are reverse scored.

The Academic integration (AI) was evaluated based on 3 items (see Table 1) measured on a Likert Scale, with five response levels (1-Totally disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree and 5-Strongly agree).

Academic performance (AP) was assessed by a single student self-assessment question (see Table 1), which is categorized into three categories (Poor, Average, Good).

Table 1. Description of the items

Assessment Scale of Bullying Situations in Hazing of Higher Education (ASBSHHE)	***Abbreviated Scale of Student Satisfaction with Student Life (ASSSL)***
1. There are rules for those who organise hazing.	1. My life is going well.
2. I can talk about hazing whenever I feel it's necessary.	2. My life is perfect
3. I feel satisfied when I am hazed.	3. I would like to change many things in my life
4. I can rely on my family when I need to.	4. I wish I had a different life
5. I believe that hazing contributes to my integration at university.	5. I have a good life.
6. Those who hazed me liked me.	6. I have what I want in life
7. I enjoy being hazed.	7. My life is better than most other people my age
8. I can't wait for hazing to end.	**Academic integration (AI)**
9. I like taking part in hazing.	1. I integrated easily into the university
10. My wish to be or not to be hazed was respected.	2. I felt welcomed by my classmates
11. The hazing involved some violence.	3. I felt welcomed by my colleagues in more advanced years
12. I was assaulted through actions or words.	**Academic performance (AP)**
13. I was able to handle hazing well.	How do you evaluate your academic performance?
14. I felt outraged.	
15. My self-esteem was harmed.	

A summary of all the relationships examined in the research conceptual framework is presented in Figure 1.

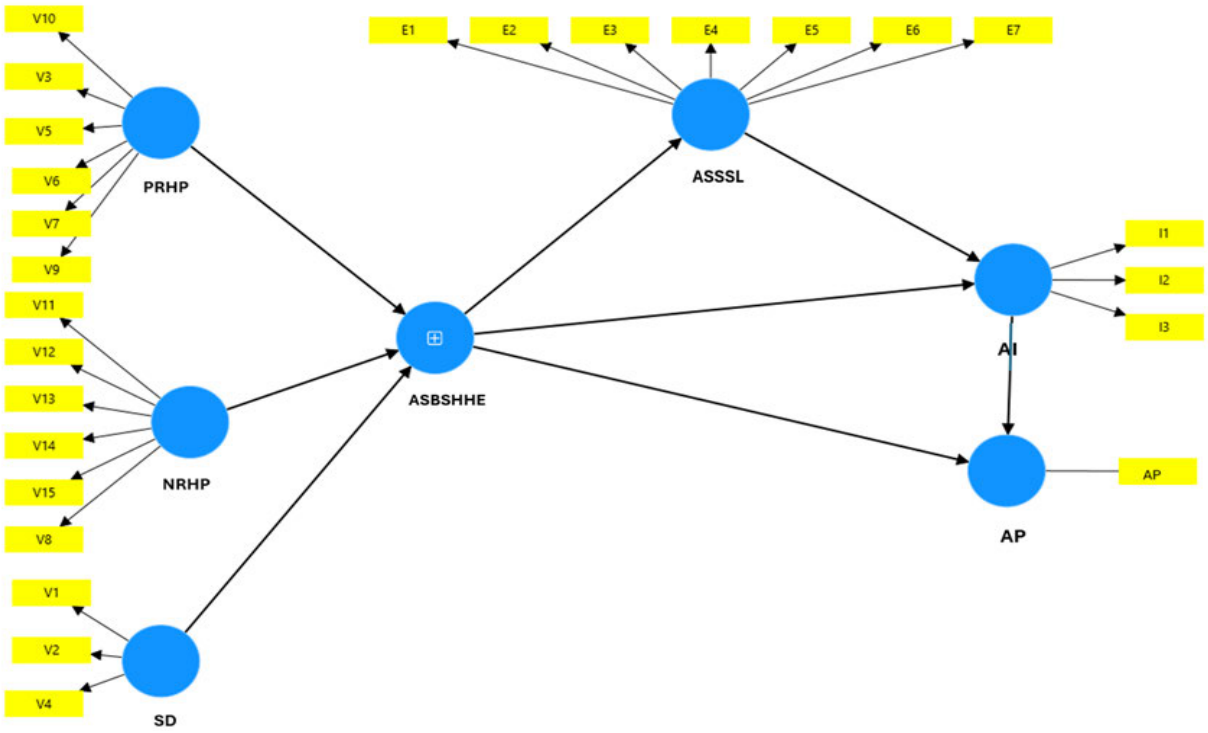

Figure 1. Conceptual model—path diagram.

This research attempts to test the following hypotheses:

- H1: Positive relationship with hazing practices (PRHP) significantly contributes to ASBSHHE
- H2: Negative relationship with hazing practices (NRHP) significantly contributes to ASBSHHE
- H3: Social dimension (SD) significantly contributes to ASBSHHE
- H4: ASBSHHE significantly contributes to ASSSL
- H5: ASBSHHE significantly contributes to academic integration (AI)
- H6: ASBSHHE significantly contributes to academic performance (AP)
- H7: ASSSL significantly contributes to academic integration (AI)
- H8: Academic integration (AI) significantly contributes to academic performance (AP)
- H9: ASSSL mediates the relationship between ASBSHHE and AI
- H10: Academic integration (AI) mediates the relationship between ASSSL and AP
- H11: Academic integration (AI) mediates the relationship between ASBSHHE and AP.

The research hypotheses outlined above were analysed using SmartPLS software (version 4) [15] to conduct Partial Least Squares Structural Equation Modelling (PLS-SEM). This approach allowed for the testing of all relationships depicted in the research conceptual framework shown in Fig. 1.

SmartPLS simultaneously provides results for both reflective measurement and structural models, including assessments of their reliability and validity [16]. In this context, in the present study, a reflective measurement model is used and the qualities of convergent and discriminant validity of the constructs under analysis are evaluated. Subsequently, the structural model is tested to assess the outcomes related to the formulated research hypotheses (H1 to H11).

3 RESULTS

Table 2 presents the results of the reliability of the measurement model (i.e., Cronbach's alpha, composite reliability [CR], and average variance extracted [AVE]). The values for Cronbach's alpha (ranging from 0.72 to 0.89) were suitable as they exceeded the 0.60 threshold proposed by Hair et al. [17]. Regarding composite reliability, values between 0.73 and 0.85 are considered "satisfactory to good" [16], which applies in this study. Most of the composite reliability values were above 0.80. Average variance extracted (AVE) is used to evaluate convergent validity - the extent to which a construct converges when explaining the variance of its items [16]. The threshold for AVE is 0.50 or higher [18], which was confirmed in this study, as all AVE values exceeded 0.50. Overall, the internal consistency, reliability, and convergent validity of the measurement model were confirmed in this study.

Table 2. Reliability and convergent validity indicators.

	Cronbach's Alpha	***Composite Reliability (CR)***	***Average Variance Extracted (AVE)***
PRHP	0,889	0,848	0,612
NRHP	0,783	0,814	0,591
SD	0,719	0,725	0,522
ASBSHHE	0,788	0,823	0,507
ASSSL	0,726	0,785	0,594
AI	0,787	0,846	0,571
AP	0,804	0,829	0,611

Table 3 presents the discriminant validity, which reflects how the constructs and their variables are distinct from other constructs or variables, thereby capturing phenomena that the others did not measure, and how the items represent a single latent construct [16]. Specifically, the table includes the values of the Fornell-Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio of the correlations [19]. The Fornell-Larcker criterion [20] compares the square root of the AVE values with the correlations

between the latent variables. Moreover, the square root of the AVE for each construct should be higher than its highest correlation with any other construct.

HTMT is the (geometric) mean of the average correlations for the items measuring the same construct, compared to the mean value of the item correlations across constructs [19]. A threshold value of 0.90 is suggested for structural models with very similar constructs, while 0.85 is more appropriate when the constructs are conceptually distinct [19]. Thus, discriminant validity problems arise when HTMT values exceed 0.85 or 0.90. All the values presented in Table 3 are below 0.90.

Table 3. Discriminant Validity – Fornell-Larker Criterion and Heterotrait-Monotrait Ratio (HTMT).

	PRHP	***NRHP***	***SD***	***ASBSHHE***	***ASSSL***	***AI***	***AP***
PRHP	**0,716**	[0,584]	[0,815]	[0,807]	[0,251]	[0,585]	[0,049]
NRHP	0,625	**0,665**	[0,546]	[0,815]	[0,187]	[0,361]	[0,071]
SD	0,502	0,345	**0,695**	[0,819]	[0,308]	[0,158]	[0,039]
ASBSHHE	0,665	0,648	0,665	**0,545**	[0,575]	[0,575]	[0,064]
ASSSL	0,199	0,106	0,166	0,205	**0,620**	[0,403]	[0,234]
AI	0,413	0,263	0,322	0,432	0,296	**0,756**	[0,127]
AP	0,029	0,057	-0,014	0,037	0,194	0,122	**1,000**

Bold figures show the square root of AVE; HTMT ratios are shown in brackets.

The results regarding the formulated research hypotheses (H1 to H11) are presented in Table 4.

Table 4. Results of tested hypotheses.

	Path coefficient (B)	***T Statistics***	***p-value***	***Decision***
H1: PRHP -> ASBSHHE	0,632	25,904	0,000	Supported
H2: NRHP -> ASBSHHE	0,360	12,433	0,000	Supported
H3: SD -> ASBSHHE	0,223	15,508	0,000	Supported
H4: ASBSHHE -> ASSSL	0,205	4,655	0,000	Supported
H5: ASBSHHE -> AI	0,388	10,253	0,000	Supported
H6: ASBSHHE -> AP	-0,019	0,395	0,693	No supported
H7: ASSSL -> AI	0,217	5,264	0,000	Supported
H8: AI -> AP	0,130	2,574	0,010	Supported
H9: ASBSHHE -> ASSSL -> AI	0,044	3,368	0,001	Supported
H10: ASSSL -> AI -> AP	0,028	2,125	0,034	Supported
H11: ASBSHHE -> AI -> AP	0,050	2,524	0,012	Supported

The constructs PRHP, NRHP, and SD show positive impacts on ASBSHHE, as expected, supporting Hypotheses H1, H2, and H3.

ASBSHHE presents significant positive effects on students' life satisfaction (ASSSL) and their academic integration (AI), confirming hypotheses H4 and H5.

It was found that ASBSHHE does not reveal a significant impact on academic performance, so H6 was not supported.

Students' life satisfaction (ASSSL) has a significant positive impact on their academic integration (AI), just as academic integration has a significant positive effect on their academic performance (AP), supporting hypotheses H7 and H8.

Satisfaction with life (ASSSL) reveals a mediating role between ASBSHHE and academic integration (AI), supporting hypothesis H9.

On the other hand, academic integration mediates the relationship between ASSSL and academic performance (AP), as well as between ASBSHHE and academic performance (AP). Therefore, hypotheses H10 and H11 are validated.

4 CONCLUSIONS

The results obtained emphasise that effective integration of students upon entering higher education is a crucial factor in their academic performance. Hazing practices, when conducted with respect for first-year students, can foster a positive welcome and an inclusive environment within the institution, facilitating connections with both new peers and senior students. This, in turn, influences students' satisfaction with their academic experience. Moreover, academic integration plays a vital role in mediating the latent variables associated with students' experiences and the university environment, ultimately impacting their academic performance.

While most higher education institutions organise welcome sessions featuring various activities to help integrate new students, it is important to emphasise the significant role that older peers play as references. Therefore, alongside the formal institutional offerings of these sessions, it is essential to implement exclusive activities for students, such as those organised by student associations, academic tunas, and cultural and sports groups within the university. In this context, it is crucial that all initiatives are civic-minded, foster positive interactions, and respect individual rights. Furthermore, continuous monitoring should be in place to ensure that necessary interventions can be made promptly, allowing students to feel genuinely integrated and motivated to achieve academic success.

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