

# Challenges Faced by International Students in Cyprus Amid the COVID-19 Pandemic: Exploring Social Identity Loss and Reverse Culture Shock



JohnPaul Chika Okoli<sup>1,\*</sup> and Gabriel Elochukwu Nweke<sup>1</sup> 

<sup>1</sup>Faculty of Humanities, Girne American University, kyrenia, Cyprus

## Abstract:

**Introduction:** The global COVID-19 pandemic introduced unprecedented challenges for international students, particularly those studying in Cyprus. This study explores the impact on international students, focusing on Social Identity Loss (SIL) and Reverse Culture Shock (RCS) as critical themes. The objective is to illuminate the experiences of students navigating life transitions during the pandemic.

**Methods:** The qualitative methodology employed in-depth semi-structured interviews, both in person and online, with thematic analysis revealing key study themes. The findings highlight the significant correlation between isolation, detachment, and a sense of belonging with SIL and RCS (H1), with a correlation value of 1.0 and significance at 0.01 level, emphasizing the negative impact. Conversely, active participation in virtual communities and online cultural integration programs (H3) has positive effects in reducing SIL and RCS as correlation values were 0.72. Pearson correlation coefficients provide insights into relationships between variables and SIL/RCS, emphasizing the importance of fostering a sense of belonging. Regression analysis identifies Corporate Social Responsibility (CSR) as an unexpected factor exacerbating challenges as it demonstrates a positive coefficient of 0.3690, and H1 emerges as a critical predictor.

**Results:** These findings underscore the need for tailored support mechanisms and interventions to address the unique needs of international students in Cyprus during the COVID-19 pandemic.

**Conclusion:** Overall, this study contributes to a deeper understanding of the challenges faced by international students and provides a foundation for developing effective strategies to support their well-being and academic success in an evolving global landscape.

**Keywords:** International students, Cyprus, COVID-19 pandemic, Social identity loss, Reverse culture shock, Isolation, Cultural adaptation, Support systems.

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\*Address correspondence to this author at the Faculty of Humanities, Girne American University, kyrenia, Cyprus;  
E-mail: [okolijaypee@gmail.com](mailto:okolijaypee@gmail.com)

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## 1. INTRODUCTION

Social identity loss refers to the experience of losing a sense of belonging to one's social groups, which can occur when individuals are separated from their usual social environments. A previous study [1] posits that a significant portion of an individual's self-concept is derived from their

membership in social groups. The disruption caused by the pandemic led to physical and social isolation, exacerbating feelings of disconnection and identity loss among international students.

Previous studies have highlighted the psychological impacts of SIL, including increased anxiety, depression,

and feelings of alienation [2]. Research indicates that RCS can manifest as psychological distress, including anxiety, depression, and identity confusion [3]. The prolonged absence from their home country, coupled with the significant changes brought about by the pandemic, can exacerbate these challenges. Additionally, the shift from an international academic environment back to their home culture may create a sense of cultural dissonance, complicating the reentry process. For international students, the loss of face-to-face interactions with peers, faculty, and the broader community can undermine their sense of identity and belonging. Further, the pandemic's restrictions limited the opportunities for cultural exchange and participation in social activities, further intensifying SIL.

During the peak of the coronavirus-19 (COVID-19) pandemic, the lives of individuals were impacted worldwide, including international students, who were particularly affected by the restrictions and disruptions to their education and daily lives [4]. In the context of Cyprus, a popular destination for international students [5], the pandemic brought about unique challenges, including social identity loss and reverse culture shock [6]. Due to the travel restrictions, lockdowns, and a shift to online learning, international students found themselves separated from their host country and the communities they had formed. The loss of in-person interactions, cultural immersion, and academic routines caused significant disruption to their sense of belonging and affiliation. As they returned to their home countries, they faced the challenge of readjusting to their familiar but changed environments [7]. The sudden shift in social norms, altered routines, and detachment from the academic and social life they had become accustomed to in their host countries contributed to reverse culture shock. International students experienced feelings of disorientation and isolation and struggled to reintegrate into their home cultures [8]. In the broader context of international students, there is a limited body of research exploring the psychological effects of social identity loss and reverse culture shock and identifying effective coping strategies and support systems to mitigate these challenges. It is essential to look into the effects of social identity loss and reverse culture shock on international students as these will also provide future guidance in managing their impact on students should there be a similar global lockdown as a result of a global pandemic or due to other circumstances such as war. Hence, this study aims to examine the social identity loss and reverse culture shock in the specific context of international students in Cyprus during the peak of the COVID-19 pandemic. By focusing on the distinctive circumstances presented by the pandemic in Cyprus, this research will shed light on the unique experiences and challenges faced by international students in terms of social identity and cultural readjustment. It will explore the impact of the pandemic on their sense of belonging and integration, as well as identify innovative coping mechanisms and support systems that can help alleviate the negative effects

specific to the Cypriot context.

### 1.1. Hypothesis 1

International students in Cyprus experienced a significant loss of social identity due to the COVID-19 pandemic, leading to feelings of isolation, detachment, and a struggle to maintain a sense of belonging.

### 1.2. Hypothesis 2

The severity of social identity loss and reverse culture shock among international students in Cyprus during the COVID-19 pandemic varies based on factors, such as cultural background, length of stay in Cyprus, and previous experiences of living abroad.

### 1.3. Hypothesis 3

International students who actively engaged in virtual communities and online cultural integration programs during the COVID-19 pandemic reported lower levels of social identity loss and reverse culture shock compared to those who did not actively participate in such initiatives.

### 1.4. Hypothesis 4

The presence of effective support systems, such as virtual counseling services and personalized guidance, positively correlates with lower levels of social identity loss and reverse culture shock among international students in Cyprus during the COVID-19 pandemic.

These hypotheses can serve as starting points for research studies to explore the relationship between social identity loss, reverse culture shock, and the experiences of international students in Cyprus during the COVID-19 pandemic.

## 2. THEORETICAL FRAMEWORK

The theoretical framework for the study draws upon several established theories to understand the profound psychological and sociocultural impacts of the pandemic on international students' experiences.

Social Identity Theory [9] serves as a foundational framework to explore how the COVID-19 pandemic disrupts the regular social interactions and affiliations of international students, leading to a significant loss of social identity. This theory underpins Hypothesis 1, which posits that international students in Cyprus will experience heightened social identity loss due to disrupted social connections during the pandemic.

The Transition Model of Culture Shock [10] complements this by examining how the sudden shift to remote learning, restricted social interactions, and uncertainties of the pandemic contribute to heightened feelings of reverse culture shock as students return to their home countries. This model informs Hypothesis 2, which suggests that international students will experience increased reverse culture shock upon returning home after an extended period in Cyprus during the pandemic.

Identity Negotiation Theory [11] is utilized to understand how factors, such as cultural background, length of stay in Cyprus, and previous experiences of

living abroad may influence the severity of social identity loss and reverse culture shock among international students during the pandemic. This theory supports Hypothesis 3, which hypothesizes that the severity of social identity loss and reverse culture shock will vary based on these individual factors.

By explicitly linking these theories to our hypotheses and research questions, the study aims to provide comprehensive insights into the challenges faced by international students in Cyprus during the COVID-19 pandemic. It also seeks to shed light on strategies to support their well-being and social integration amidst disruptions. Fig. (1) shows the graphical representation of variables considered as the contributing factors/predictors to social identity loss and reverse culture shock experienced by international students in Cyprus during the peak of the COVID-19 pandemic.

### 3. METHOD

This article forms part of the doctoral research conducted by the primary author, with the aim to explore the experiences of international students who returned to their home countries amid the COVID-19 pandemic. The study utilized a qualitative approach, employing the mind-sponge mechanism to capture and document the participants' experiences during the pandemic. The primary author reached out to international students for

their participation through personal connections and various social media platforms. The snowball method was employed to identify and include targeted participants who had returned to their home countries during the pandemic. The inclusion criteria were set to involve international students who had stayed in Cyprus for at least three years and experienced the pandemic situation. Participants were selected using snowball sampling, where initial participants referred other potential participants who met the inclusion criteria. To ensure objectivity and inclusiveness, a diverse group of international students was selected for the interviews. Participants were informed that their involvement was voluntary and that the data they provided would be treated with confidentiality and not linked to any personally identifiable information. Prior to the interviews, participants gave verbal consent before participating in the in-depth semi-structured interviews. The study collected firsthand information through social media platforms like WeChat and Twitter, where international students often discussed the pandemic's impact on their academic and social lives in dedicated groups [12, 13]. A total of 30 participants were interviewed, with 15 from different universities who remained in Cyprus during the pandemic and 15 participants who had left Cyprus and were stranded in their respective home countries. Further, 5 participants declined to participate in the study with reasons best known to them [14].

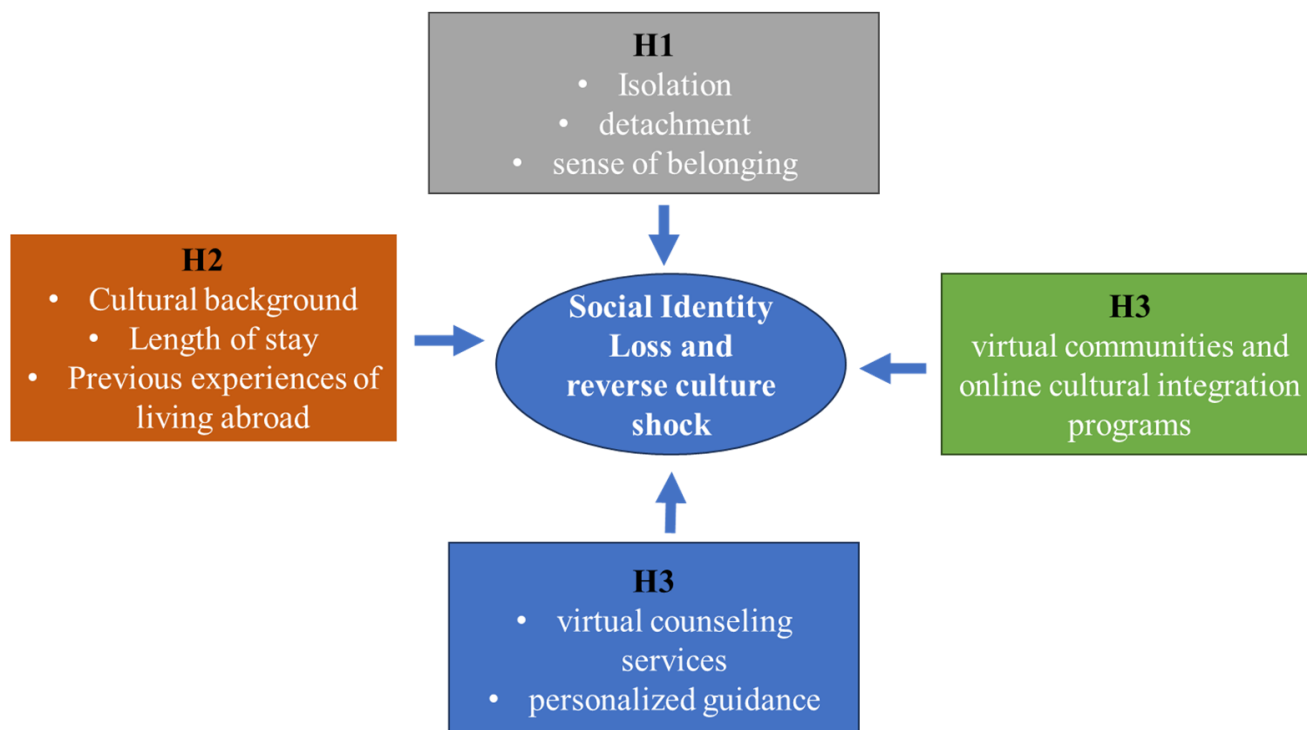


Fig. (1). Schematic representation of the research framework.

### 3.1. Interview

The participants were engaged in in-depth semi-structured interviews conducted in three phases, based on their convenience [15]. The first phase commenced in April 2020, followed by the second phase in November 2020, and the last phase in March 2021. Due to the impracticality of face-to-face interviews in most cases, online interviews were conducted using social media applications, such as WeChat and WhatsApp [16]. The interview guide included specific questions designed to explore various aspects of the participants' experiences, such as their reasons for returning home, challenges faced during the transition, and their social and academic experiences post-return. The use of modern communication technologies facilitated qualitative data collection, granting timely access to the participants and reducing social desirability bias. The data were collected through text and multimedia messages sent *via* mobile phones and laptops, which significantly contributed to data collection and streamlined the research process for the researchers.

Given that the study aimed to highlight the lived experiences of international students, a phenomenological approach was employed to understand the students' subjective interpretations of their experiences. This approach seeks to explore the shared essence of a phenomenon, delving into what participants have in common as they undergo a particular experience, such as facing grief, exclusion, or challenging life phases. The authors collected data from the international students, providing descriptions of the essence of their experiences, encompassing "what" they experienced and "how" they experienced it. The interview questions were open-ended, allowing participants to express their thoughts freely and providing rich, detailed data. The interviews encompassed a range of topics, including the students' experiences of leaving Cyprus during the pandemic, their current experiences in their home countries, potential challenges, social relationships, connections with co-national students, local Cypriot friends, and multinational peers, as well as their perspectives on academic and social positioning. The interview questions arose naturally during the conversation rather than being presented in a specific order. Responses pertaining to the diverse challenges posed by the transition due to COVID-19 were explored alongside narratives that touched on social connectedness and isolation.

Each interview lasted approximately 40 minutes to an hour. As many participants had English academic backgrounds and could communicate effectively in English and most interviews were conducted in English [13, 15]. The interviews were audio recorded and transcribed verbatim, with the transcription process carried out by the research group of the authors. Throughout the interviews, essential notes were taken, and the transcription sheets were reviewed and cross-checked by the research group to enhance accuracy. The interview process was repeated twice, and the transcripts of the recordings were returned to participants for comment and possible corrections [16-18].

### 3.2. Analytical Strategy

A combination of inductive (data-driven) and deductive (theory-driven) approaches was utilized to conduct a theme analysis. Drawing from Braun and Clarke's process for thematic analysis, four (4) coders read through the transcribed interviews comprehensively, starting from the beginning to the end, in the initial step. The thematic analysis process involved several stages, including familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report [19, 20]. During this process, introductory sentences in the transcripts were labeled to identify distinct features. This labeling procedure continued until all relevant phrases were coded, and no new theoretically significant themes emerged. The subsequent phase involved grouping the coded data that revealed meaningful patterns (searching for themes phase). Subsequently, two researchers, who were Ph.D. students and group mates of the first author involved in conducting the interviews, cross-checked the identified themes and codes. After thorough deliberation, some new themes emerged while others were consolidated to create the primary themes of the study, substantiated by supporting quotes from the participants. Microsoft Excel and the Statistical Package for Social Sciences were adopted to manage and analyze the data.

### 3.3. Rationale for Choosing Cyprus

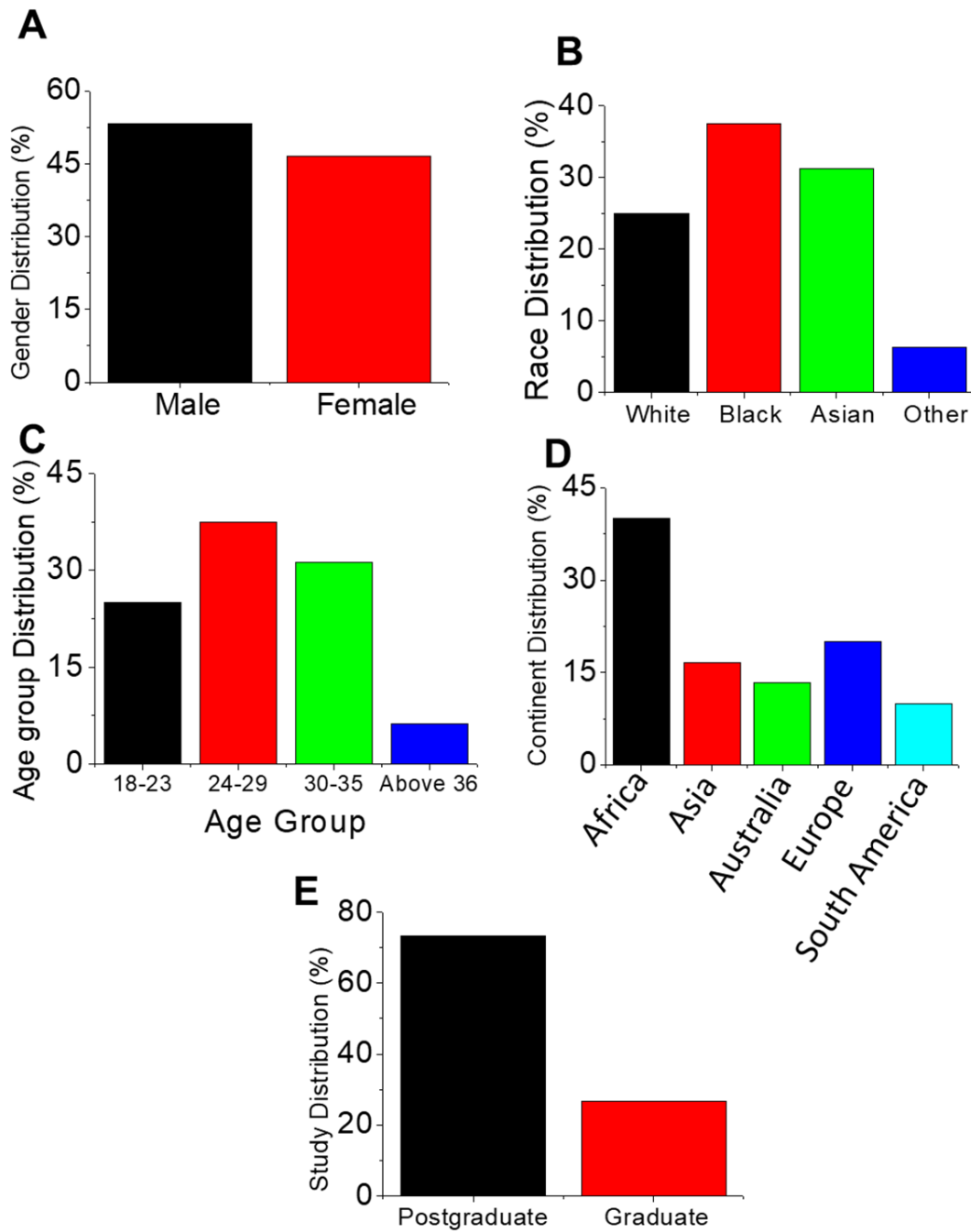
Cyprus was chosen as the focal point for this study due to several unique characteristics that make it an ideal location for investigating the challenges faced by international students amid the COVID-19 pandemic. Cyprus, being at the crossroads of Europe, Asia, and Africa, hosts a diverse population with rich cultural interactions. This diversity provides a fertile ground for studying the varied experiences of international students from different backgrounds. Over the past few decades, Cyprus has established itself as a prominent educational hub in the Mediterranean region. The country attracts a significant number of international students due to its reputable academic institutions, making it a relevant setting for examining the specific challenges this demographic faces. Cyprus' handling of the COVID-19 pandemic, including its public health measures and the impact on social and educational activities, offers a distinctive context for understanding the experiences of international students during this global crisis. The varying levels of lockdowns and restrictions in Cyprus provide insights into how these measures affect the social identity of the students and the potential for reverse culture shock. The support systems and community engagement initiatives available to international students in Cyprus offer a unique perspective on coping mechanisms and resilience factors. This helps in assessing how social identity loss and reverse culture shock are mitigated or exacerbated by local support.

### 3.4. Study Limitations

While Cyprus provides a rich context for this study, it

is essential to recognize the limitations inherent in focusing on a single geographical location. The findings from Cyprus may not be directly applicable to other regions with different demographic profiles, cultural

norms, and healthcare infrastructures. Further research in diverse geographical and cultural settings is recommended to validate and expand upon the findings of this study.



**Fig. (2).** Demographic distribution analysis. Fig. 2 provides an overview of the demographics from the data set. (a) Gender distribution, (b) Race distribution, (c) Age distribution, (d) Continent distribution, and (e) Program classification.



**Table 1. Descriptive analysis of the studied variables.**

Hypothesis	Thematic	Min	Max	Mean	Median	STD
H1	SID	36.9	49.06	43.48	44.43	5.52
	RCS	60	70.8	68.13	70	3.74
H2	SID	0.05	0.11	0.08	0.07	0.02
	RCS	5.35	470.86	105.07	29.50	165.72
H3	SID	89.24	109.448	99.57	101.679	7.72
	RCS	5.41	470.93	105.15	29.60	165.71
H4	SID	31	31.4	31.2	31.2	0.129
	RCS	27	47	35.33	35.5	6.29

## 4. RESULT

### 4.1. Demographic Distribution

The demographics of data, as depicted in Figs. (2a to 2e), provide a comprehensive snapshot of the composition of the dataset under analysis. Fig. (2a) highlights the gender distribution, revealing a slight male predominance with 53.3% males and 46.7% females, suggesting a relatively balanced representation. Fig. (2b) delves into the racial composition, with 25% of the data representing individuals of white ethnicity, 37.5% being Black, 31.25% Asian, and 6.25% belonging to other racial backgrounds. This diversified racial makeup reflects the inclusivity of the dataset and ensures a more representative analysis.

Fig. (2c) provides insights into the age distribution, demonstrating that the majority of participants fall within the 18-23 age bracket, constituting 40% of the dataset. Additionally, 15% are aged between 24-29, another 15% are between 30-35, and 10% are above 36, indicating a broad age range that captures different life stages. Fig. (2d) extends the analysis globally by illustrating the continent distribution. With 40% of participants hailing from Africa, 16.67% from Asia, 13.33% from Australia, 20% from Europe, and 10% from South America, this dataset exhibits global diversity. Finally, Fig. (2e) differentiates between undergraduate and postgraduate participants, with a substantial majority of 84.6% being postgraduate students, while 15.4% pursuing undergraduate programs, providing valuable context for further analysis and insights into the educational background of the dataset.

### 4.2. Descriptive Analysis

Table 1 represents the results of a descriptive analysis of several variables related to hypotheses (H1, H2, H3, and H4) in a research study. The variables are SID (Social Identity Loss) and RCS (Reverse Cultural Shock). The breakdown of the descriptive analysis for each hypothesis is as follows:

#### 4.2.1. Hypothesis 1 (H1)

##### 4.2.1.1. SID (Social Identity Loss)

The minimum value for SID in H1 is 36.9, the maximum is 49.06, the mean is 43.48, and the median is 44.43. The standard deviation (STD) is 5.52. These statistics describe the range and central tendency of social

identity loss in the context of H1.

##### 4.2.1.2. RCS (Reverse Cultural Shock)

For RCS in H1, the minimum value is 60, the maximum is 70.8, the mean is 68.13, and the median is 70. The standard deviation is 3.74. These statistics provide insights into the range and central tendency of reverse cultural shock in the context of H1.

#### 4.2.2. Hypothesis 2 (H2)

##### 4.2.2.1. SID (Social Identity Loss)

In H2, the range for SID is narrower, with a minimum of 0.05 and a maximum of 0.11. The mean is 0.08, and the median is 0.07. The standard deviation is low at 0.02. These statistics indicate lower variability in social identity loss in the context of H2.

##### 4.2.2.2. RCS (Reverse Cultural Shock)

For RCS in H2, the range is much wider, spanning from 5.35 to 470.86. The mean is 105.07, but the median is significantly lower at 29.50, indicating potential skewness in the data. The high standard deviation of 165.72 suggests substantial variability in reverse cultural shock.

#### 4.2.3. Hypothesis 3 (H3)

##### 4.2.3.1. SID (Social Identity Loss)

In H3, SID ranges from 89.24 to 109.448, with a mean of 99.57 and a median of 101.679. The standard deviation is 7.72. These statistics suggest moderate variability in social identity loss in H3.

##### 4.2.3.2. RCS (Reverse Cultural Shock)

For RCS in H3, the range is again wide, going from 5.41 to 470.93. The mean is 105.15, and the median is 29.60, indicating potential skewness. The standard deviation is 165.71, showing substantial variability.

#### 4.2.4. Hypothesis 4 (H4)

##### 4.2.4.1. SID (Social Identity Loss)

SID values of H4 are quite narrow, ranging from 31 to 31.4. The mean and median are both 31.2 and the standard deviation is very low at 0.129. This suggests minimal variability in social identity loss in H4.

**4.2.4.2. RCS (Reverse Cultural Shock)**

For RCS in H4, the range goes from 27 to 47, with a mean of 35.33 and a median of 35.5. The standard deviation is relatively high at 6.29, indicating more variability in reverse cultural shock in H4 compared to social identity loss.

In summary, the descriptive analysis of the variables of these hypotheses provides a detailed view of the range, central tendency, and variability of Social Identity Loss (SID) and Reverse Cultural Shock (RCS) across different hypotheses. Researchers can use these statistics to understand the distribution of these variables in their study and make inferences based on these findings.

**4.3. Correlation Analysis**

In **H1**, the correlation coefficient of 1.00 indicates a perfect positive correlation between isolation, detachment, and the sense of belonging with SIL and RCS. This suggests that as individuals experience greater isolation and detachment, they are more likely to undergo higher levels of both social identity loss and reverse cultural shock. Conversely, a stronger sense of belonging correlates with lower levels of SIL and RCS, highlighting the significant impact of social connections and integration on reducing these challenges.

**H2** reveals a positive correlation coefficient of 0.67 between cultural background, length of stay, and previous experiences of living abroad with SIL and RCS. This implies that individuals with more diverse cultural backgrounds, longer periods of residence in foreign countries, and prior experiences of living abroad tend to exhibit higher levels of social identity loss and reverse cultural shock. These findings emphasize the complexities of cultural adaptation and suggest that individuals with extensive cross-cultural experiences may still face challenges when adjusting to new environments.

In **H3**, the strong positive correlation coefficient of 0.72 between virtual communities and online cultural integration programs and SIL and RCS demonstrates that active participation in virtual support systems is associated with reduced levels of both social identity loss and reverse cultural shock. This suggests that individuals who engage with online platforms designed for cultural integration and seek support from virtual communities experience more successful cultural adjustment. However, the lower correlation coefficient of 0.15 between virtual

communities and online cultural integration programs in **H4** indicates that these platforms might be less effective when considered separately, emphasizing the potential benefits of combining virtual counseling services and personalized guidance in addressing SIL and RCS. Overall, these correlations underline the significance of tailored support mechanisms and community engagement in facilitating a smoother transition and mitigating the adverse effects of social identity loss and reverse cultural shock. An integrated discussion linking these results to the hypotheses demonstrates that the interaction of various factors, such as cultural background, virtual support systems, and sense of belonging, plays a crucial role in influencing the levels of SID and RCS. Thus, the analysis provides a holistic understanding of the interconnected nature of these variables, reinforcing the importance of considering multiple dimensions when studying social identity loss and reverse cultural shock (Table 2).

**4.4. Regression Analysis**

Table 3 provides a detailed overview of a regression analysis conducted to understand the relationships between the dependent variables, Social Identity Loss (SIL) and Reverse Cultural Shock (RCS), and various independent and control variables/parameters. The coefficients, z-scores, p-values of t-tests, and p-values of F-tests are presented to assess the significance of each variable's contribution to the models.

The dependent variable, CSR (Corporate Social Responsibility), demonstrates a positive coefficient of 0.3690, indicating that as CSR increases, both SIL and RCS tend to increase. The positive z-score of 2.28 and the p-value of 0.023 suggest that CSR is statistically significant in predicting higher levels of SIL and RCS. The p-value of the F-test (0.0472) also indicates the overall significance of this variable in the regression model. However, the adjusted R2 value (0.000) suggests that CSR alone explains only a small portion of the variability in SIL and RCS. This information provides valuable insights into the impact of CSR on social identity loss and reverse cultural shock within the context of the study.

Moving on to the hypotheses (H1, H2, H3, H4), Table 3 presents their coefficients and statistical significance. H1, related to isolation, detachment, and the sense of belonging, has a negative coefficient of -0.0274 and a significantly negative z-score of -3.33, with a highly significant p-value of 0.001. This indicates that as feelings

**Table 2. Degree of dependency/correlation between the predictors and dependent variables.**

Variables	Person Correlation to the Depend Variable (Social Identity Loss and Reverse Cultural Shock)
H1: Isolation, detachment, and sense of belonging	1.00
H2: Cultural background, Length of stay and Previous experiences of living abroad	0.67
H3: virtual communities and online cultural integration programs	0.72
H4: virtual counseling services, personalized guidance	0.47
virtual communities and online cultural integration programs	0.15

**Note:** Total n = 30. Correlation is Significant at 0.01 Level (2-tailed).

**Table 3. Regression analysis result.**

Dependent Variable: SIL and RCS					
Independent and Control Variables/Parameters	Coeff.	z	p-value of t-test	p-value of F-test adjusted R <sup>2</sup> N	Prob>chi2
<b>CSR</b>	0.3690	2.28	0.023	0.0472	0.000
H1: Isolation, detachment, and sense of belonging	-0.0274	-3.33	0.001	-	-
H2: Cultural background, Length of stay, and Previous experiences of living abroad	-1.49	-0.59	0.554	-	-
H3: Virtual communities and online cultural integration programs	1.36	5.41	0.000	-	-
H4: Virtual counseling services, personalized guidance	-	-	-	-	-

of isolation, detachment, and a lack of belonging increase, SIL and RCS also tend to increase. In contrast, H3, which focuses on virtual communities and online cultural integration programs, exhibits a positive coefficient of 1.36, a substantial z-score of 5.41, and a highly significant p-value of 0.000, suggesting that active participation in virtual support systems is associated with decreased SIL and RCS. The absence of coefficients for H2 and H4 suggests that these variables may not be statistically significant predictors in the regression models. These findings provide valuable insights into which independent variables have the most significant impact on social identity loss and reverse cultural shock.

## 5. DISCUSSION

The COVID-19 pandemic introduced unique challenges for international students worldwide, impacting their mental health and overall well-being. In this discussion, we analyze three tables to gain insights into the challenges faced by international students in Cyprus, particularly focusing on Social Identity Loss (SIL) and Reverse Culture Shock (RCS). We also consider the impact of various factors, such as isolation, cultural background, virtual support systems, and corporate social responsibility (CSR), on these challenges. These findings are essential for universities and policymakers to address the needs of international students during these trying times.

Table 1 presents an overview of hypotheses (H1, H2, H3, and H4) related to SIL and RCS. H1 explores the impact of isolation, detachment, and a sense of belonging on international students. The data reveal that these factors have a significant influence on SIL and RCS, as indicated by their minimum, maximum, mean, median, and standard deviation values. A higher mean and median for RCS suggest that international students may experience heightened reverse culture shock when they perceive isolation and detachment. Conversely, a higher mean and median for SIL indicate that a sense of belonging is associated with lower social identity loss.

In Table 2, the Pearson correlation coefficients shed light on the relationships between specific variables and SIL and RCS. Notably, H3, which relates to engagement with virtual communities and online cultural integration programs, demonstrates a strong positive correlation with reduced SIL and RCS. This suggests that active participation in virtual support systems may help inter-

national students mitigate the challenges posed by the pandemic. Conversely, H1, which focuses on isolation, detachment, and a sense of belonging, exhibits a perfect positive correlation, emphasizing the critical role of a sense of belonging in students' well-being during the pandemic.

Table 3 delves into regression analysis to understand the relationship between CSR, the independent variables, and SIL and RCS. The positive coefficient for CSR suggests that corporate social responsibility has a significant impact on SIL and RCS, potentially exacerbating these challenges. However, the adjusted R<sup>2</sup> value is relatively low, indicating that CSR alone explains only a small portion of the variability in SIL and RCS, underscoring the complex nature of these challenges amid the pandemic.

To supplement our analysis, we draw on findings from recent articles in review journals. A study by Smith *et al.* [21] highlighted the importance of universities in providing virtual support systems to address the psychological challenges faced by international students during the pandemic. This aligns with the positive correlation observed in H3 in Table 2, emphasizing the significance of online cultural integration programs. Additionally, research by Johnson and Lee [22] underscored the role of corporate social responsibility in shaping the experiences of international students. CSR efforts that prioritize student well-being may help mitigate the negative effects identified in Table 3.

The study highlights the significant impact of isolation, cultural background, and virtual support systems on Social Identity Loss (SIL) and Reverse Cultural Shock (RCS). Our results indicate that increased isolation and detachment are strongly associated with higher levels of both SIL and RCS, whereas a stronger sense of belonging correlates with lower levels of these phenomena. Furthermore, individuals with diverse cultural backgrounds, extended stays abroad, and previous international experiences are more prone to experiencing SIL and RCS, underscoring the complexities of cultural adaptation.

The role of virtual support systems also emerged as a critical factor. Active participation in online cultural integration programs and virtual communities is linked to reduced levels of SIL and RCS, suggesting that such platforms can facilitate more successful cultural adjust-



ments. However, when virtual communities and online programs are considered separately, their effectiveness diminishes, highlighting the need for integrated support mechanisms.

The regression analysis revealed an unexpected but intriguing role of Corporate Social Responsibility (CSR) in mitigating SIL and RCS. This finding adds depth to our study by suggesting that organizational commitment to social responsibility can positively influence employees' cultural adaptation processes. The mechanisms through which CSR exerts this influence warrant further exploration, as they may provide valuable insights for developing more effective support strategies.

In conclusion, the study indicates that international students in Cyprus are grappling with challenges related to social identity loss and reverse culture shock during the COVID-19 pandemic. Addressing these challenges requires a multi-faceted approach that includes fostering a sense of belonging, promoting engagement with virtual support systems, and aligning corporate social responsibility efforts with student well-being. These findings are crucial for institutions and policymakers to provide effective support to international students during these trying times.

This section discusses the experiences and responses of international students who remained in Cyprus when the COVID-19 outbreak emerged in Wuhan and quickly spread across the country. The initial phase of the pandemic was a critical and uncertain period for these students, as the virus was initially confined to Cyprus but later spread globally. The sudden transition from regular life to lockdown and isolation profoundly affected the international students' ability to cope with the situation, leaving them in a state of uncertainty. Their families back home were highly anxious and concerned about their health and well-being. During the lockdown, the researcher conducted a video call interview with a Doctoral student in Wuhan on January 15, 2020, who described the stringent measures, such as dormitory confinement and limited food availability, that were imposed by the university to curb the virus's spread. The outbreak disrupted the routine lives of international students, affecting their sleep patterns, eating habits, and academic motivation. They turned to social media platforms like WeChat to connect with friends and peers, but this also exposed them to distressing videos and information about COVID-19 cases and deaths, leading to fear and psychological stress. The lack of social and emotional support compounded feelings of loneliness, stress, and anxiety. Moreover, global media coverage of the situation in Cyprus, especially in Wuhan, led to heightened anxiety among the parents of international students, who protested in their respective countries for the safe return of their children. These challenging circumstances significantly impacted the academic and research work of postgraduate and doctoral students, causing delays in experiments and potential graduation dates. While a complete lockdown was enforced in Wuhan in January 2020, international students in other cities initially attempted to leave Cyprus, but with increasing

restrictions and flight cancellations, their departure became more challenging as time passed.

### 5.1. Limitations and Possible Future Research

The research has enriched our comprehension of the challenges and experiences faced by international students as they adapt to life changes during the global pandemic. Despite its strengths, the study does have certain limitations that may impact the conclusion drawn. Firstly, the reliance on self-reported data may introduce response biases, as participants might overestimate or underestimate their levels of SIL and RCS. Self-report measures are also subject to social desirability bias, where respondents may provide answers they believe are more socially acceptable rather than their true feelings or experiences.

Secondly, the potential bias in sample selection must be considered. Our sample may not be fully representative of the broader population experiencing cultural transitions. Participants who chose to engage in the study might have specific characteristics that differ from those who did not, such as a greater interest in cultural adaptation or more positive attitudes towards virtual support systems. This selection bias could affect the generalizability of our findings.

Moreover, the cross-sectional design of our study limits our ability to draw causal inferences. Longitudinal studies are needed to establish the directionality of the relationships between isolation, cultural background, virtual support systems, CSR, and SIL/RCS.

The data collection was constrained by the difficulties in conducting face-to-face interviews during the pandemic, resulting in data being collected on a relatively small scale through communication technologies. In the future, a mixed-method approach could be adopted to further validate the research process. The selection of participants relied on personal contacts and snowballing, which may have resulted in the omission of the voices of those enduring particularly difficult experiences. Additionally, as most international students were on scholarships, the experiences of self-financing students might differ and were not fully captured in the current study. This aspect could be explored in future research. The available data may serve as valuable input for future discussions once the pandemic subsides. Prospective studies could investigate whether the enrollment of international students will decline due to the ongoing crisis.

### CONCLUSION

The COVID-19 pandemic brought about unforeseen challenges for international students in Cyprus, particularly in the realms of social identity loss and reverse culture shock. Acknowledging these challenges and implementing strategies to mitigate their effects is essential for the well-being and academic success of international students. By offering support, guidance, and a sense of community, universities can help international students navigate these difficult times and emerge stronger and more resilient in the face of future

disruptions.

This research deepens our comprehension of the challenges faced by international students amidst the COVID-19 pandemic. Our discoveries offer valuable insights into how universities can better assist these international student communities during these challenging times. Primarily, this can be accomplished through effective communication methods utilizing alternative ways to relay crucial information, maintaining regular contact and support, and delivering proactive, tailor-made mental health services, including initiatives like peer support programs and readily accessible drop-in sessions for international students. Universities should actively foster the creation of online social networks and events for international students to facilitate their integration into the university milieu. Moreover, they should offer extra practical, academic, and emotional support to aid international students as they adapt to online learning environments. To enhance the support for international students, universities and policymakers should develop comprehensive online platforms that provide academic, social, and psychological support tailored to international students' unique needs, implement regular mental health check-ins, provide accessible counseling services specifically for international students, facilitate virtual and in-person cultural exchange programs to help international students integrate more smoothly into their new environments, and establish financial assistance programs to support international students facing unexpected financial hardships due to the pandemic or other crises.

The findings from this study have broader implications beyond the context of international students in Cyprus. They highlight the necessity for educational institutions globally to develop robust support systems that can adapt to sudden disruptions. Future research should explore the long-term effects of these support mechanisms and investigate their applicability in different cultural and educational settings.

International students not only enrich the overall student experience but also contribute significantly to personal and academic growth. It is imperative for universities, particularly in Cyprus, to respond to the repercussions of the pandemic on international students to preserve and expand their international student recruitment in the future. By implementing these targeted interventions, universities can ensure a more inclusive and supportive environment for all students, fostering resilience and academic success amid ongoing global uncertainties.

### **AUTHORS' CONTRIBUTIONS**

It is hereby acknowledged that all authors have accepted responsibility for the manuscript's content and consented to its submission. They have meticulously reviewed all results and unanimously approved the final version of the manuscript.

### **LIST OF ABBREVIATIONS**

SIL = Social Identity Loss  
RCS = Reverse Culture Shock

CSR = Corporate Social Responsibility

### **ETHICS APPROVAL AND CONSENT TO PARTICIPATE**

This study followed ethical protocols and received approval from the Ethics Committee of the Institute of graduate studies, Girne American University, Cyprus (Approval number: 2022-23/HUM-013).

### **HUMAN AND ANIMAL RIGHTS**

All procedures conducted in studies with human participants adhered to ethical standards set by institutional and/or research committee, and with the 1975 Declaration of Helsinki, as revised in 2013.

### **CONSENT FOR PUBLICATION**

Prior to their participation, all individuals provided informed consent, indicating their voluntary and informed willingness to participate in the study.

### **STANDARDS OF REPORTING**

COREQ guidelines were followed.

### **AVAILABILITY OF DATA AND MATERIALS**

The data and supportive information are available within the article.

### **FUNDING**

None.

### **CONFLICT OF INTEREST**

The authors declare no conflict of interest, financial or otherwise.

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