Psychological Stress among University Students in Pakistan Due to COVID -19 Pandemic and Social Distancing: A Study of Social and Familial Factors Affecting Stress Levels

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ABSTRACT

Purpose: At present, the world is in the grip of COVID-19, a new health threat that has been declared a pandemic. To reduce the number of COVID-19 cases, preventive measures such as lockdowns and social distancing have been adopted. This situation is a cause of psychological stress for humans, especially among the youth. This study was conducted to analyze the stress levels of university students and the factors that contributed to reduction in stress levels.

Methodology: A sample of 997 students was taken from the University of Home Economics Lahore. The data was collected through a detailed online survey and presented graphically with the help of tables and graphs. The impact of family size, family setup, and house size, the presence of kids and pets at home as well as religious following on stress levels was studied using chi-square tests and tests of correlation.

Findings: Significant correlations were found supporting the idea that all of the aforementioned factors played a significant role in reducing stress levels among the young students.

Practical implications: This research will help the educators and psychologists tackle students' stress issues during social distancing. This research is an addition to the existing literature developed during COVID-19.

Keywords: *COVID-19, Social distancing, Psychological stress, Stress, University students*

1. INTRODUCTION

At present, the world is in the grip of COVID-19, a new health threat that has been declared a pandemic after the influenza virus of 1918. The numbers of death rate is increasing despite the fact that vaccines have been discovered and are readily available to the public. To reduce the number of cases, measures such as lockdowns and social distancing are being adopted. Social distancing is being practiced in many forms but the main purpose behind it is to keep people at a distance in order to restrict their movement which will control the spread of the virus and reduce the number of infections. However, these isolations, social distancing and quarantines have resulted in stress and frustration among people.

A healthy mind is equally important as having a healthy body. Psychological stress is a condition that causes emotional and physical strain on the body and makes a person irritable, angry and stressed. Excessive psychological stress hampers the normal functioning of the human body and can make a person lethargic as well. Untreated psychological stress can start deteriorating both the immune system and the digestive system of a human (Farboodi, Jarosch, & Shimer, 2021).

It is said that man is a social animal. The closure of school has resulted in boredom in the lives of everyone. Teenagers and adults no longer reflect the same level of daily marked rigor and zeal that was formerly visible. Everyone is confined to their home, cannot meet with their neighbors and friends, go shopping or do other daily activities that they used to do with their friends.

Social distancing has created a sense of alienation among all. These declining mental health issues are reduced to some extent by social media. Reducing the effects of social distancing requires coming up with strategies to channel people's energies into motivating them to do something constructive with this time, they can start a hobby, learn a new skill or concentrate on improving their lifestyle. The government can play its role in the domain by exhibiting constructive activities on national television.

This study focused on the factors that helped the Pakistani students relieve their stress levels during the recent pandemic years. Being a Muslim and belonging to a diverse eastern culture Pakistani youth were found to be

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very attached to their families, children and pets etc. The study focused on analyzing the impact of these factors on reducing stress patterns in youth during the pandemic.

As currently no policies and activities are being undertaken to channel the public's energy into productive actions, this research is undertaken to highlight the impact that social distancing is having on the psychology of Pakistanis. It highlights pent up frustrations, stress, fatigue, anxieties and depression that are developing among our people. Furthermore, at the end of the study, a few strategies that may be helpful in reducing stress are mentioned and a request is made to policymakers to come up with strategies and for curbing delinquent behavior among the nation's youth.

H_0; Students living with pets at home are less stressed than families without pets.

H_1; Students living in joint families are less stressed than those in nuclear families.

2. LITERATURE REVIEW

Zhu, Zhang, Zhou, Li, and Yang (2021) proved in their research that social distancing during COVID-19 causes alienation and affects an individual's mental health. This was a cross-sectional online survey of 7145 participants. A self-designed negative emotion questionnaire, symptom check list 90 (SCL-90), PTSD (Post Traumatic Stress Disorder) checklist-civilian version (PCL-C) and Adolescent Student Alienation Scale (ASAS) were used as tools of data collection. A mild level of mental disorder and conditional process modal was revealed by descriptive analysis and supported the hypotheses that negative emotions and alienation cause anxiety. Zhao et al. (2020) measure the relationship between social distancing and mental health. A survey of 1501 adults using a telephonic interview for measuring stress, anxiety and depression was conducted. Researcher used the stress scale 4, general anxiety disorder 2 and patient health questionnaire 2. The multivariate regression model was applied to calculate the relationship between staying home and depression. The findings revealed that more days spent at home were associated with depressive symptoms.

Al-Qahtani, Elgzar, and Ibrahim (2020) conducted research to understand the relationship between social distancing, use of social media and depression in Najran city. The snowball technique was used to collect data from 1508 participants. There was a significant difference ($p<0.05$) between Saudi Arabian and non-Saudi Arabian participants in the research regarding all social aspects. There was a high mean of depression, stress and anxiety observed in non-Saudi residents. There was a significant difference in Saudi Arabia and non-Saudi Arabian residents' stress anxiety and depression levels ($p=0.000$). The findings of this research also indicated that prolonged use of social media affects the psychological wellbeing of people. Douglas, Katikireddi, Taulbut, McKee, and McCartney (2020) in their article mitigating the wider health effects of the COVID -19 pandemic response narrated that isolation at home risks serious social and economic effects on people. It can cause frustration and boredom because of isolation and poor economic conditions. It should be mitigated by clear rapid online communication. It is very important for poor countries. Venkatesh and Edirappuli (2020) also commented in their article that social isolation can cause mental health problems like frustration, boredom, low mood and depression. They suggested that healthcare experts should communicate clear health guidelines to prevent people from developing these illnesses. Gotlib et al.'s (2021) research on the effect of COVID-19 isolation on adolescence with early life stress symptoms. The findings of the research indicated that these individuals are at high risk of developing depression during this disease. The level of depression is higher in female than in male. The monitoring of adolescent mental health during this pandemic should be given high importance.

Williams, Armitage, Tampe, and Dienes (2020) in a focus group online discussion in the UK (n=27) aging 18 and above described that people are facing loss of social interaction, income and routine which led to psychological and emotional losses i.e. loss of motivation. Most participants reported especially from low income groups that social distancing had a negative impact on mental health. They suggested that a rapid response from the government is required to mitigate the mental health impact of social distancing. Oral and Gunlu (2021) conducted research in Turkey to test the psychological resilience of 843 people (481 female and 362 male). A social distancing scale was applied to measure the mediating role of depression, anxiety and stress in psychological resilience during the COVID -19 outbreaks. The research findings show that there is a relationship between social distancing and psychological resilience through depression, anxiety and stress.

Fischer et al. (2020) suggested some interventions for coping with social distancing stress, depression and anxiety. A literature survey of 34 meta- analyses (total number of studies k=1,390 n=145,744) suggested self-guided therapeutic approaches, positive psychological intervention and multi component and activity-based intervention. Multi component intervention was more effective than self-guided intervention. Galea, Merchant, and Lurie (2020) suggested in their article that during social isolation audio and video connections

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are important especially for the students who are away from school. They suggested that along with physical health programs, psychological and mental health programs should be devised to help the population.

Li and Xu (2022) examined whether family support contributed in positive mental health during the COVID-19 pandemic. An online survey method is used to collect data from 1547 respondents from around 31 provinces in China. The findings of the research showed a positive relationship between family support and social distancing stress.

Eden, Johnson, Reinecke, and Grady (2020) conducted research to examine the relationship between social distancing and the use of media by university students. The findings of this research calculated that specific types of media use have a positive impact on the wellbeing of students, controlling stress and anxiety.

Grajfoner, Ke, and Wong (2021) investigated the relationship between stress, anxiety, mental health and pets. In cross- sectional research, 448 respondents from Malaysia reported that pet owners have significantly better coping skills, more positive emotions and better psychological wellbeing. The result showed a positive impact on the mental wellbeing of pet owners.

Brown, Doom, Lechuga-Peña, Watamura, and Koppels (2020) in their research indicated a risk of child abuse by parents in COVID -19. A total of 183 participants with children fewer than 18 were taken as a sample to find out the relationship between parental stress and child abuse. Results suggested that although high parental stress is associated with an increased risk of child abuse and also suggested that although families experience elevated stressors from COVID-19 providing parental support and increasing perceived control may be promising intervention targets.

The above literature clearly indicates that students experienced mental stress, anxiety and psychological issues during the pandemic. But family type, the presence of pets and use of the media played an important role in psychological wellbeing. This research is designed to further investigate these variables in a local setting.

3. METHOD

3.1. Target Population

The target population for the study was the young university students studying at different universities in Pakistan.

3.2. Sampled Population

The sampled population for the study was the students studying at the University of Home Economics Lahore in session 2020-2021.

3.3. Population Size

The size of the population (*N*) i.e. the total number of students enrolled in university was 2365 in session 2020-21.

3.4. Sample Size Determination

The sample size was determined by using the formula

$$n = \frac{N}{1+Ne^2}$$

With e=0.025 and N=2365

The sample size turned out to be equal to 997.

Sample selection

The sample was selected randomly from the list of students enrolled.

3.5. Tool for Data Collection

The data was collected through a designed questionnaire containing 20 questions about the COVID -19 related stress. The questionnaires were sent to the selected respondents through email.

3.6. Time Span of Study

The study was conducted from November 2020-December 2020.

3.7. Limitations of Study

1. The study was only conducted on female students studying at the university.
2. The age group under study was 16-24 years.
3. The study was carried out to determine the stress levels in a limited geographical region (Pakistan).The results may vary with the change in the geographical region.

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3.8. Ethical Considerations

The study was carried out with the proper consent of the administration of the university, parents and students. No ethical or moral constraints were overlooked.

3.9. Quantification of Data

The data was quantified using a 5-point Likert scale and the responses to the questions related to stress levels were pooled for further analysis.

3.10. Tools for Data Analysis

The Chi square test for association and the test for correlations were used to analyzed the data and responses were tabulated and graphically displayed using Statistical Package for Social Sciences (SPSS) software.

3.11. Level of Confidence

The level of significance for the study was set at 5%.

4. ANALYSIS

COVID-19 related stress responses were quantified, pooled and analyzed. The effects of family sizes, family setups, and house sizes, the presence of kids and pets at home and religion on stress levels were studied using chi square tests and tests of correlation. The following results were obtained.

The family setup had two categories, nuclear and joint families. The pie chart below represents the data:

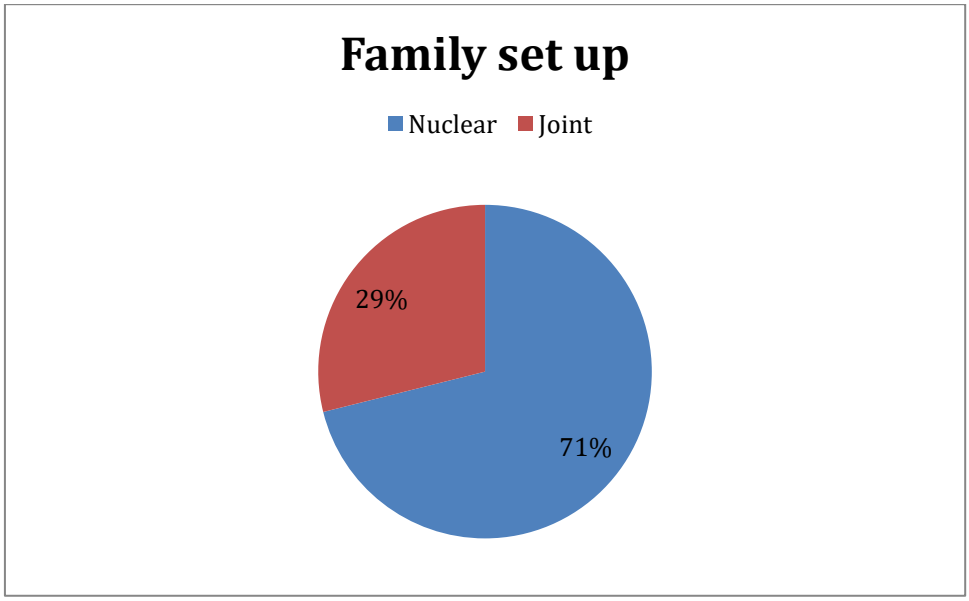

Figure 1. Stress and family setup.

Figure 1 shows that 71.11% of the respondents had nuclear family setups and 28.89% had joint family setups. Chi square tests were used to examine the relationship of stress levels and family setups. The following results were obtained.

Table 1. Chi-square test of association between stress and family system.

Chi square value	D.F	Significance
37.996	20	0.021

Table 1 shows that a significant relationship at the 5 % level of significance between family setup and stress levels was found. This indicated that students living in joint family setups were less stressed as compared to those who live in nuclear families because they had more people to interact with and share with.

The responses of the students on family sizes were presented in the pie chart given below.

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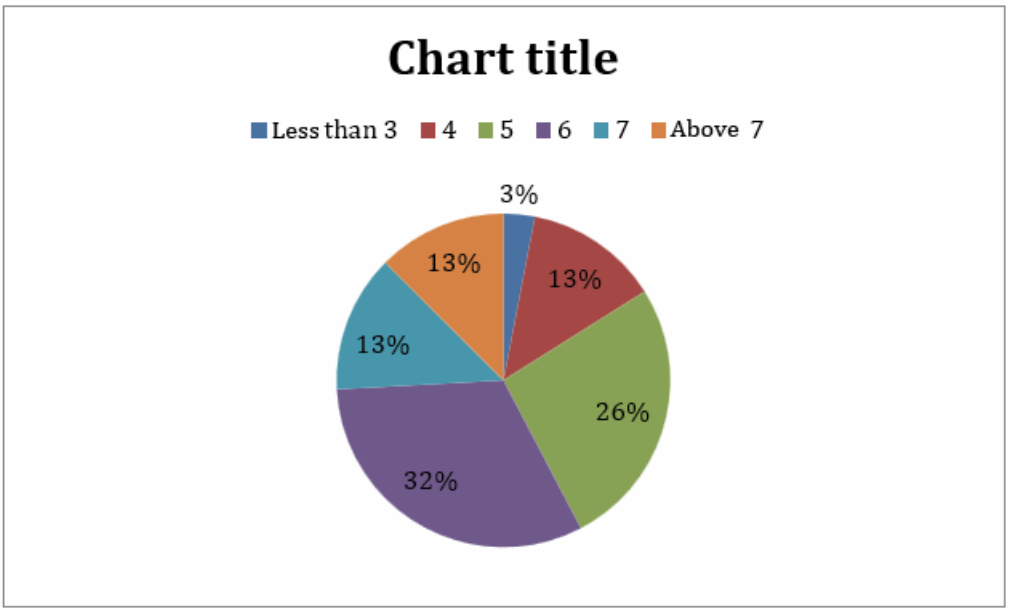

Figure 2. Stress and family sizes.

Figure 2 shows the percentage of responses for different family sizes. The average size of the family was found to be 4 members. According to figure 2, 32% of respondents had family of 6 members which can be considered a modal number.

The relationship between stress levels and the number of family members was analyzed using correlation analysis. The following results were obtained:

Table 2. Chi-square test of association between stress and number of family members.

Pearson correlation	***N***	**Significance**
-0.067	997	0.021

Table 2 shows that the correlation between stress and the number of family members was found to be negative and significant at the 5 % level of significance indicating that larger family sizes lead to reduced stress levels because they are able to share their feelings and problems with more people who are close relatives.

Responses on the number of bedrooms in the house (house sizes) were represented by a pie chart.

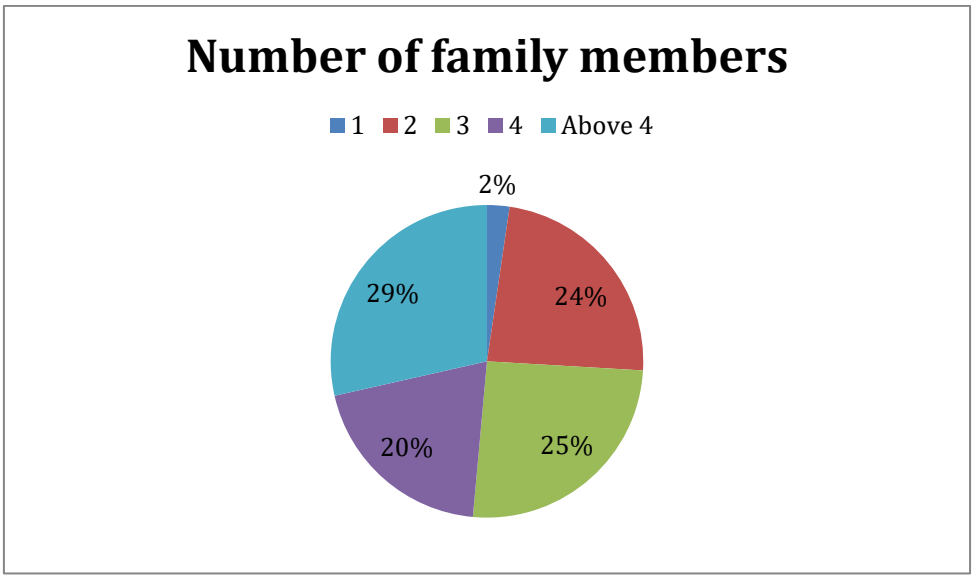

Figure 3. Stress and house sizes.

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Figure 3 shows the percentage of responses about the house size (number of bedrooms).
The average number of bedrooms was found to be 3.45. The responses distribution for sizes above 1 bedroom nearly equal.

Table 3. Chi-square test of association between stress and number of bed rooms.

Pearson correlation	N	Significance
-0.089	997	0.018

Table 3 shows that correlation was negative and significant at the 5 % level of significance indicating that larger house sizes lead to reduce stress levels. Respondents have enough space to perform their activities.

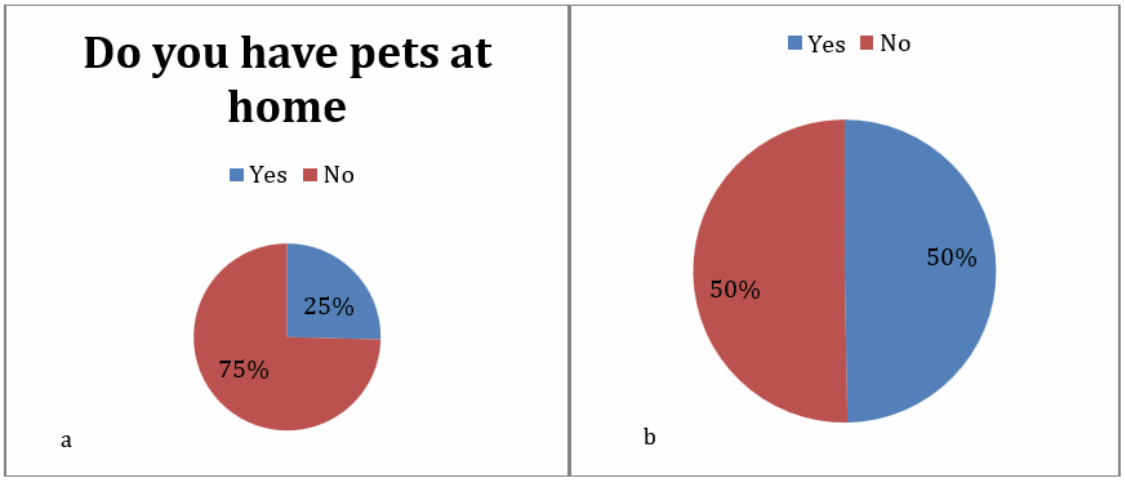

Figure 4. a, b stress and presence of children and pets at home.

Figure 4(a) shows that 25% of the respondents had pets at their homes.
Figure 4(b) shows that 50% of the respondents had children at their homes.

The Chi-Square test of association between stress and the presence of pets and kids at home.
Chi square tests were used to examine the relationships between the presence of children and pets at home and level of stress. The following results were obtained:

Table 4. Chi-square test of association between stress and presence of kids at home.

Chi square value	d.f	Significance
42.57	20	0.0056

Table 4 shows a significant relationship between the presence of children and stress levels at the 5% level of significance. Children are always a source of happiness and joy so they proved themselves as a way of relieving stress during the pandemic.

Table 5. Chi-square test of association between stress and presence of pets at home.

Chi square value	d.f	Significance
39.594	20	0.0309

Table 5 shows a significant relationship between the presence of pets and stress levels at the 5% level of significance. Pets are the best way to recreate and share the feelings. It was observed that presence of pets at home was a cause of relief for the students.
The data on the responses to strict religion were represented.

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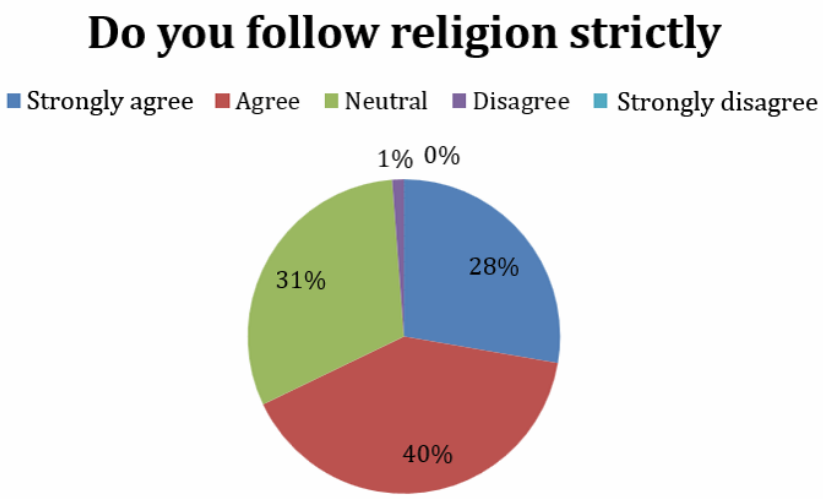

Figure 5. Stress and religion.

Figure 5 shows responses from the religious following. It was found that about 68% (28%+40%) of the respondents agreed that they follow their religion strictly.31% were neutral and only 1% showed disagreement.

Table 6. Chi-square test of association between stress and religious following.

Pearson correlation	N	Significance
-0.102	997	0.002

Table 6 shows that the correlation between stress and religious following was found to be negative and significant at the 5 % level of significance indicating that religious following leads to reduce stress levels because religion is a source of motivation and strength in people especially the eastern youth. During the COVID-19, it gave the students a sense of happiness and trust.

5. DISCUSSION

COVID-19 emerged as the biggest emergency and a pandemic condition across the globe in 2019. However, in Pakistan, where the pandemic started affecting the nation gravely in 2020-21, three waves of the disease have now passed in the country. Human beings are known to be "social animals" and it is also proposed that for human beings it is difficult to survive and sustain themselves without comingling and without social interactions.

This pandemic changed the entire lifestyle of the people. In our developing country, COVID-19 not only affected the people psychologically but also socially and economically as our economy is struggling with loans, pay-offs and inefficient tax collection etc. . This study was done to find out whether the impact of COVID -19 caused social distancing among the youth of Pakistan, as they were also badly affected by this pandemic which changed their daily routines, lifestyles and financial situation. In this study, the stress levels of female students of university and the impact of various social and demographic factors on their stress levels were also taken into account.

In our country, family is the most important source of support for children. This support system prevented any kind of psychological stress which at times if left unaddressed turns into physical lethargy, failure of the immune system and the beginning of digestive tract disorders as supported by the findings of Farboodi et al. (2021).It was discovered that family sizes, family setups, house sizes and the presence of children and pets at home helped the youth in reducing their stress levels. Significant correlations and associations among the above mentioned indicators revealed that these factors were really helpful for the youth to cope with their stress levels. Although they were in lock down but the presence of immediate family members, children and pets at home was a source of blessing for them and prevented mental break down among youth. Their families supported them, shared their problems and tried to sooth them in this condition. As Muslims, they found that practicing their religion strengthened trust and reduced their stress level as proved by quantitative data analysis.

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6. CONCLUSION

This study was conducted with the goal of analyzing the impact of social distancing on the nation's youth for the purpose a sample of (N=997) was studied and after conducting survey and subjecting the data to SPSS analysis prove the null hypothesis true that means students living with pets in home are less stressed than families without pets. These findings also support the findings of Grajfoner et al. (2021). According to this research, the presence of pets reduces anxiety and stress.

The findings of this research also validate the research of Li and Xu (2022) which prove that family support reduces stress and anxiety. So H_1 students living in joint families are less stressed than those in nuclear families is accepted.

FUNDING

This study received no specific financial support.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

ARTICLE HISTORY

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AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study.

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