Research Paper

Impact of Loneliness on Mental Health among University Students

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ABSTRACT

Loneliness has become a very severe concern in every age group like adolescents, adults, and older people. students were found to be more susceptible to mental health problems than the general population. The study aims to investigate loneliness's impact on university students' mental health. This study used the UCLA Loneliness Scale by Russell (1996) and the Mental Health Inventory by Veit and Ware (1983) measures. The sample comprises 200 university students. Statistical techniques like Descriptive statistics, independent t-test, Pearson correlation, and regression have been used to analyze the data. Descriptive analysis for the variable showed that the mean value of loneliness among males is 44.80 (SE =.97) and among females is 46.36 (SE =.93). The mean value of mental health among males is 67.41 (SE = 1.27) and among females is 67.12 (SE =.99). The result reveals that the correlation between loneliness and mental health is -.538, which is significant at the a. 01 level. The variance is significant at the 0.01 level. There is a negative correlation between the variables loneliness and mental health. Loneliness has an impact on the mental health of university students.

Keywords: *Loneliness, Mental Health (MH), and university students*

Loneliness
Loneliness is the state in which an individual experiences primary separation from loved ones and feels disassociated from society, which leads to mental and physical illness. Loneliness has become the biggest social concern in the upcoming decades (Duin, 2012). Loneliness is defined by Perlman and Peplau (1981): "Loneliness is the experience of a deficit between actual social relationships and desired social relationships, either in quality or quantity."

According to Weiss (1973), loneliness is categorized into two parts: social and emotional loneliness. Russell et al. (1984): "Social loneliness is related to the absence of satisfying friendships, and emotional loneliness is absence as linked to the absence of intimate attachment to another person and satisfying intimate relationships." According to Cattan et al. (2003), "emotional loneliness is defined as personal, relating to satisfaction with existing

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opportunities to socialize, while social loneliness is where people feel they do not have a wide social network, with support from friends or allies in times of distress." Qualter et al. (2015) found that all age groups are experiencing loneliness, but loneliness is common among adolescents. Zhao et al. (2012) found that approximately 80% of students sometimes experience loneliness. For the development of loneliness, adolescence is a high-risk stage; adolescents experience loneliness more than any age group (Zhang, 2012). Hawkley et al. (2015) found that loneliness was greater among unmarried individuals than among married individuals.

Mental health

The concept of mental health involves the presence of psychological well-being, interest in life, happiness, and well-being as well as the absence of psychopathological symptoms like stress, anxiety, and depression (Ware et al., 1993).

Mental health provides 'individuals with a feeling of control, worth, and an understanding of internal and external functioning'. SHEPS (1997) demonstrates that mental health involves feeling happy, cheerful, and loving, as well as feeling positive about oneself and others.

Mental health is defined by the World Health Organization (2004) as "a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to his or her community."

Black and Andreasen, (2011) define mental health as "a state of being that is relative rather than absolute. The successful performance of mental functions shown by productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity."

Keyes Mental Health Model

Keyes, (2002) has given a multidimensional model of MH. Keyes's MH model is categorized into 3 parts- Emotional well-being, Psychological well-being, and Social well-being.

1. Emotional well-being- Positive affect and quality of life are considered as constituent parts of the domain.
2. Psychological well-being- This domain includes how individuals flourish at their level. for example- self-acceptance and a sense of purpose in life.
3. Social well-being- This domain of social well-being is about how individuals flourish in their social lives and communities.

Some studies show that an individual deals with a variety of challenges and pressures due to physical, social, and emotional difficulties in his life (Rodgers et al., 2009). MH concerns are increasing among university students at the global level. Acharya et al. (2018) reported that university students are more vulnerable to developing mental health issues because they are in their transformation phase.

A study was conducted on 300 students selected through a cluster sampling strategy at the University of Hubei. The study concluded that college students may experience psychological problems related to their educational and social circumstances (Lei et al., 2021).

Loneliness and Mental Health

Loneliness is negatively correlated with the variable MH this study also found that loneliness forecasts mental health issues among healthy children and adolescents (Loades et al., 2020). Goosby et al. (2013) demonstrate that due to the negative impacts of loneliness on physical and MH, loneliness is considered a public health concern. Hefner, (2009) shows that college students who experienced high levels of loneliness were more likely to experience MH issues. In the United Kingdom, approximately 30% of the British community reported that loneliness negatively correlates with MH (Office for National Science, 2020). Killgore et al. (2020) demonstrate that economic uncertainty and social isolation significantly increase MH concerns such as anxiety, suicidal ideation, and loneliness. According to Statistics Canada (2020), the results show that they disproportionately impact the younger community's perceived loneliness and MH. Wang et al. (2018) conducted a review and found that greater loneliness correlated with poor MH. Drum et al. (2009) found that in the population of students, the preponderance of MH differs from "4% to 85%." Meltzer et al. (2013) reported that loneliness has a strong correlation with MH issues in the United Kingdom. Perrig-Chiello et al. (2016) demonstrate that loneliness and MH issues are severe outcomes of bereavement. Cacioppo et al. (2015) demonstrate that individuals who suffer from loneliness also experience a variety of negative MH issues. Ong et al. (2015) demonstrate that increasing evidence shows that for physical and mental illness, loneliness is considered a dangerous component in later life. Barger et al. (2014) conducted a cross-sectional study and concluded that there is a strong correlation between loneliness and MH. Victor et al. (2012) demonstrate that loneliness is negatively associated with many negative MH issues, like decreased positive emotions, sleep quality, depression, general health, and physiological changes.

A cross-sectional study was conducted on 454 British undergraduate students and found that a greater level of loneliness leads to high levels of MH issues like anxiety, depression, and stress (Richardson et al., 2017). McIntyre et al. (2018) found that the level of loneliness increases MH issues like depression and anxiety in students' lives. A study has been conducted on 15,010 people and found that females suffer from loneliness; this study also concludes that loneliness is associated with anxiety, depression, suicide, and the risk of smoking and frequently going to physician visits (Beutel et al., 2017).

Jose et al. (2014) found that some longitudinal studies also supported the idea that loneliness has mediating effects on youth's well-being and MH. Richardson et al. (2017) Loneliness is a dominant forecast of mental illness, and its longitudinal evidence shows that loneliness exacerbates psychological factors such as stress, anxiety, depression, and worse MH among students. Sun et al. (2014) reported that a higher level of loneliness is significantly correlated with worsened psychological status and MH among students.

A cross-sectional study was conducted on 318 participants of Bushehr and found that those who felt lonely did not have good MH (Zakizadeh et al., 2020). A study was conducted on 244 participants from Turkey and found that loneliness partially impacts the variable MH (Arslan, 2021). Smith and Victor, (2019) conducted a longitudinal study on 7,032 students of California University and the results revealed that those students experiencing isolation and loneliness were more likely to report poor physical and MH problems. A cross-sectional study was conducted on 9000 participants from Japan and the study indicates that loneliness is associated with poorer MH (Stickley & Ueda, 2020).

Objectives
- To investigate the relationship between university students' mental health and loneliness.
- To study the gender differences in the variables of loneliness and mental health.
- To investigate the impact of loneliness on the mental health of university students.

Hypotheses
- There will be a significant relationship between loneliness and mental health among university students.
- There will be a significant gender difference in the variables of loneliness and mental health.
- Impact of loneliness on the mental health of university students.

METHOD
Sample

The target population of the study was university students with an age range of 18–25 years. The current study has a sample size of 200, and the sample is further divided into 100 males and 100 females. The target population of this study was university students. The English language was used in all the instruments. The administration of the forms was in offline and online mode.

Inclusion criteria
- University students.
- Can read and write.
- Age range between 18-25.
- Willing to participate in the study.

Exclusive criteria
- Patient with psychiatric illness.
- Students who are not studying in university.

Procedure

The sample was finalized by purposive sampling. After finalizing the sample, the data was collected at the convenience of the participants after obtaining their consent. The test was administered individually as well as in groups as per convenience. The data will be analyzed as per the research objectives with the help of statistical tools like descriptive statistics, correlation analysis, and regression analysis.

Tools
- **UCLA Loneliness Scale (Daniel W. Russell, 1996):** The UCLA Loneliness Scale was developed by Daniel W. Russell in 1996. The test was developed at the University of California, Los Angeles. UCLA has commonly measured loneliness. 20 items are presented on this scale. The Cronbach alpha of the scale is 0.92 (Russell, 1996). The Cronbach alpha test-retest reliability of the scale is.73, and its validity ranges from.40 to.50, which indicates a good psychometric property of the scale.
- **Mental Health Inventory (Veit and Ware, 1983):** It was Veit and Ware who created the mental health assessment during the study of national health insurance. MHI has four subscales: anxiety, depression, behavioral control, and positive affect.

There are eighteen items on the scale. Respondents must use a 6-point rating system. The mental health inventory has good psychometric properties. The higher score indicates better mental health.

RESULTS

In this present study, 200 university students from Haryana, India are used as a sample, and a strong relationship has been examined between mental health and loneliness. A descriptive analysis of the variables is indicated in Table 1.

Table 1. Mean and Standard Deviation

	Gender	N	Mean	SD	Std. error Mean
Loneliness	Male	100	44.80	9.75	.97
	Female	100	46.36	9.35	.93
Mental health	Male	100	67.41	12.66	1.27
	Female	100	67.12	9.88	.99

Table 1 demonstrates the result that the mean value of loneliness is 46.36 (standard error =.93) among females and the mean score among males is 44.80 (standard error =.97). The mean value of MH among males is 67.41 (standard error = 12.66), and the mean value is 67.12 (9.88) among females. The mean value of loneliness is found to be high among females, and the mean value of MH is high among males.

Table 2. Independent t-test for Loneliness and Mental Health

	Mean difference	Std error of difference	t-value	df	p-value
Loneliness	-1.56	1.35	1.15	198	.83
Mental Health	.29	1.61	.18	198	.04**

*** significant at p<.05*

As depicted in Table 2, the mean difference score on variable loneliness is -1.56 (t = -1.156, P<.83), which is not significant. The result shows that the mean difference score on variable MH is .29 (t =.181, p<.04), which is significant at the .05 level. Females score highly on loneliness, with a mean difference of -1.56, which is not significant. Males score high on MH with a mean difference of .29, which is significant at the .05 level.

Table 3. Correlation Matrix for showing the relationship between Loneliness and Mental Health

	Loneliness	Mental health
Loneliness	1	-.538**
Mental health	-.538**	1

***significant at 0.01 level (2-tailed).*

Results show that the correlation coefficient between loneliness and MH is -.538, which is significant at the p<0.01 level and indicates a moderate correlation between loneliness and MH. Results reveal that the correlation between loneliness and MH is negative and significant at a.01 level. Courtin et al. (2017) reported that in an older population, feelings of loneliness are negatively correlated with MH.

Table 4. Regression Table Showing the Determinants of Variance on Mental Health by Loneliness

	R Square	Adjusted R Square	Beta	F	Sig.
Loneliness	.289	.285	-.538	80.46	000*

Dependent variable: Mental Health
*Significant at .01 level

Table 4 shows that loneliness significantly predicts the MH of university students. The R square value (R^2=28.9) demonstrates that the model explains 28.9 percent of the total variance in mental health. The negative value of beta shows that loneliness negatively impacts mental health. The F value (80.46) indicates that loneliness plays a significant role in affecting mental health. The variance is significant at the p<.01 level, indicating that loneliness impacts university students' MH. The results show that loneliness affects MH (b = -.538, p<.01).

DISCUSSION

The study aims to investigate the significant relationship between loneliness and MH among university students. The results reveal that the correlation coefficient between loneliness and MH is a moderately negative correlation between Loneliness and MH. Therefore, Hypotheses 1: "There shall be a significant relationship between loneliness and MH among university students" is accepted, which shows that an increased level of loneliness leads to a decreased level of MH and a decreased level of loneliness leads to higher MH. As the level of loneliness increases, an individual suffers from psychological problems like anxiety and depression. Some researchers support our study that loneliness is negatively correlated with MH and may be dangerous at an earlier age (Ernst et al., 1999). Mushtaq et al. (2014) found that a decreased level of MH status is correlated with an increased level of loneliness. Courtin et al. (2017) reported that in an older population, feelings of loneliness are negatively correlated with MH. Results show that when an individual feels lonely, it will negative impact on their MH.

The objective of the study is to investigate the gender differences in loneliness and MH variables. The mean difference score on the variables MH is significant at a.05 level. Therefore, Hypothesis 2 "There shall be significant gender differences on the variable of loneliness and mental health" is partially accepted, which shows that females score high on the variable of loneliness and males score high on the variable of MH. Some studies support our results. Findlay et al. (2017) found that young females were found to be at higher risk of MH concerns like anxiety, depression, and suicide attempts. Clark, (1980) demonstrates that approximately 12% of males and 25% of females experienced loneliness among Swedish individuals.

The objective of the study is to investigate the impact of loneliness on the MH of university students. The results show that loneliness impacts the MH of university students. Therefore, Hypothesis 3: "Loneliness will impact the MH of university students" is accepted, which depicts that a lonely individual suffers from mental health issues like anxiety and depression. Hefner, (2009) shows that higher rates of loneliness were associated with a higher risk of MH problems among college students.

Results show that as the level of loneliness increases, it will impact the MH of university students. Thus, our hypothesis 1 is accepted, which shows that the variables loneliness and Mental health are negatively correlated with each other. Hypothesis 2 is partially accepted,

which shows that gender differences are found in the variable MH. Hypothesis 3 is accepted, which shows that loneliness impacts MH. Conclusively, the study found a significant negative relationship between loneliness and MH. The mean difference in the variable MH is significant. The variance is significant at the $p<.01$ level.

CONCLUSION
Loneliness is a risk factor for all age groups, such as students, adults, and older people who suffer from loneliness. Loneliness increases physical as well as psychological health issues. Students are more vulnerable to mental health issues. A high level of loneliness leads to MH issues such as stress, anxiety, depression, and suicidal thoughts. Some individuals involve themselves in alcohol and drinking habits. Females suffer from more loneliness than males. Mental health issues can be decreased by involving oneself with family members, friends, and peer groups and keeping busy with some social activities. Individuals can promote their mental health by being less lonely and more active in social activities. In our study, loneliness is negatively correlated with mental health. Loneliness impacts the MH of university students.

Implications of the Study
The study aims to investigate the relationship between the variables of loneliness and mental health. The results of the study will be helpful for the students to know the negative effects of loneliness that can impact physical and psychological health as well. A higher level of loneliness leads to poor mental health. If people want to develop good mental health, they can engage with their friends and family and prevent loneliness. To reduce loneliness and mental health issues some approaches like self-help, support of friends and peer groups, social and psychological interventions, and strategies to facilitate change at community and societal levels. Health authorities can plan and act consciously on the factors that affects mental health and the sense of loneliness. The study has some limitations, too. A larger sample size can increase the effectiveness of the study. The effectiveness of the study is also increased by comparing college and university students with rural and urban backgrounds.

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