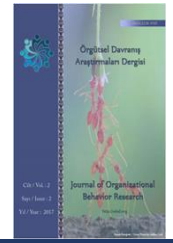




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## LONELINESS AMONG THE STUDENTS OF FACULTY OF SCIENCE AND ARTS DURING THE COVID-19

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### ABSTRACT

The aim of this research is to investigate the level of loneliness among the students of the Faculty of Science and Arts in Rafha campus, Northern Border University, KSA during the outbreak of Novel Corona virus, and identify the differences among the students in loneliness according to the variables of gender and marital status. To achieve this aim, the researcher applied a descriptive method, prepared a preliminary data form and used UCLA Loneliness Scale. The population of the research was (1160) students, and the sample size was (365) students. The data were collected online in the first semester of the academic year 2020-2021. The results showed that the level of loneliness among the students during the outbreak of the Novel Corona virus was below the average. Moreover, the results revealed that there were significant differences among the students in loneliness according to gender variable: female students' mean (191.59) was greater than the male students' mean (153.82). Also, the results indicated that there were no significant differences among the students in loneliness due to marital status variable.

**Keywords:** loneliness, Students of the faculty, Novel corona virus, COVID-19.

### INTRODUCTION

In January 2020, the World Health Organization announced the outbreak of a novel coronavirus disease, COVID-19, as a Public Health Emergency of International Concern, and mentioned that there is a high risk of COVID-19 spreading to other countries around the globe (Albureikan, 2020; Damanhour, *et al.*, 2021). In March 2020, the World Health Organization declared that COVID-19 could be specified as a pandemic. In general, this crisis is causing stress among the entire world population (World Health Organization, 2020).

It is very important during the time of pandemics to concentrate on physical and mental health as well as the well-being of communities affected by the pandemic. However, worries about the transmission of the virus from an individual to another may decrease community coherence (Johns Hopkins Aramco Healthcare, 2020).

The spread of the COVID-19 has led to the implementation of crucial measures, one of which was the social distance to reduce its spread. Another important thing is that besides quarantine and isolation, for the individuals who have been exposed to or infected with the virus, a social distancing policy has been imposed among the population to decrease the transmission of the COVID-19 (Hwang *et al.*, 2020). Although lockdown may help to restrain the spread of the

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virus, it can lead to real damage to the population's well-being (Brodeur *et al.*, 2020). Loneliness is an extreme mental health issue that has continuously worsened with each passing time of the pandemic; therefore, government leaders, policymakers, and mental health communities need to take into consideration the outcomes of loneliness and social isolation as they schedule for the long-term recovery from the impact of COVID-19 (Killgore *et al.*, 2020b).

Mental health services all over the world are not ready to deal with the effects of the novel coronavirus outbreak (Giallonardo *et al.*, 2020). So, loneliness is perceived as a major public health concern; as a result, there are global worries that lockdown precautions taken during the (COVID-19) pandemic could lead to an increase in loneliness (Bu *et al.*, 2020b), as the study conducted by Brodeur *et al.* (2020) indicated that lockdown may have a hard impact on the mental health.

### Research Problem

Since the spread of the Coronavirus (COVID-19), there were so many restrictions have been adopted to limit its spread globally. These restrictions include lockdown, home quarantine, and social distancing measures, e-learning, and smart working. Although these strategies are meant to reduce the transmission of the virus, they could lead to loneliness. Hwang *et al.* (2020) stated that even though quarantine and social distance are essential measures to restrain the virus from spreading, but also result in high levels of loneliness and social isolation, that affect physical- and mental health, and accordingly societal effects of the COVID-19 pandemic have been wide and so challenging. There are increasing worries that lockdowns and 'stay-at-home' orders, due to the COVID-19 pandemic, could lead to a rise in loneliness, which is recognized as a major public health concern, but profiles of loneliness during the pandemic and risk factors remain unclear (Bu *et al.*, 2020a). Moreover, the findings of Killgore *et al.* (2020b) indicated that higher loneliness is positively correlated with depression and suicidal ideation. Also, Algeeg (2011) mentioned that many studies showed that the high level of mental disorders is associated with an increased level of loneliness and depression as well as the existence of a positive relationship between the feeling of loneliness and depression. In addition, Bu *et al.* (2020b) findings revealed that being a student came out to be a higher risk element of loneliness during the lockdown as it was used to be, and Kecojevic *et al.* (2020) concluded that the COVID-19 pandemic has a great negative effect on the mental health of college students.

In the light of the above arguments, it is necessary to shed light on loneliness among the faculty students during the outbreak of the Novel Coronavirus. Therefore, the current research focuses on revealing the level of loneliness among the students, and the problem of the research can be addressed as in the following questions:

1. What is the level of loneliness among the students of the Faculty of Science and Arts in Rafha during the outbreak of the Novel Coronavirus?
2. Are there differences among the students in loneliness during the outbreak of the Novel Coronavirus due to the variables of gender and marital status?

### Research Objectives

This research aims at achieving the following goals:



1. Investigating the level of loneliness among the students of the Faculty of Science and Arts in Rafha, during the outbreak of the Novel Coronavirus.
2. Identifying the differences among the students in loneliness according to the variables of gender and the marital status during the outbreak of the Novel Coronavirus.

### *Research Significance*

The importance of the current research comes from the fact that it investigates the level of loneliness among university students during the outbreak of the Novel Coronavirus because loneliness has become an important issue that needs to be tackled as stated by Zhang *et al.* (2020) that less attention has been paid to the negative effects on mental health or efficient alleviation strategies to improve mental health.

There is a pressing need for research to deal with how mental health effects for vulnerable groups can be reduced under pandemic circumstances (Holmes *et al.*, 2020). Also, the significance of the current research comes from the scarcity of studies that have attempted to examine the level of loneliness among university students in Arab countries during the Novel Coronavirus outbreak.

### *Terminologies of the Research*

#### *Loneliness*

Loneliness is an unpleasant experience that takes place when an individual's network of social relationships is significantly insufficient in either quantity or quality (Perlman *et al.*, 1984).

#### *Students of the Faculty*

They were the students in the Faculty of Science and Arts in Rafha campus, Northern Border University, KSA.

#### *Novel Coronavirus (COVID -19)*

The World Health Organization has named the novel coronavirus SARS-CoV-2 and the disease it causes COVID-19. The CO stands for corona, the VI for the virus, and the D for disease (Johns Hopkins Aramco Healthcare, 2020).

#### *Theoretical Framework and Previous Studies*

The COVID-19 pandemic is a problematic global health crisis that requires a large-scale behavior change and places significant psychological encumbrances on people (Van Bavel *et al.*, 2020). The outbreak of the novel Coronavirus has been an unforeseen challenge for national health systems all over the world. So, the intensity of the virus has made Governments provide measures of containment and alleviation, such as social distance, smart working, and the temporary closing of commercial activities. Furthermore, universities needed to give up classroom-based classes, and online classes have replaced traditional classes (Ariantabar & Rezaei, 2020; Bianchi *et al.*, 2020). The (COVID-19) pandemic has affected the economic, social, physical, and mental health parameters worldwide. It has also caused threats and psychological effects resulting from forcing to stay at homes as a kind of quarantine and inability to go out only in cases of need. The most significant of these menaces are the constraints imposed on family members and their psychological effects, social distancing



measures in everyday life interactions between persons which is significant for social processes in human life (Alasmari, 2020).

### *Impact of COVID-19 on Mental Health*

The COVID-19 is unprecedented due to limited treatment alternatives. Its quick spread all over the world has created stress on countries' capacity to maintain their economies afloat. All these elements lead to anxiety and stress in people. While assessing the effect of the COVID-19 on mental health after the pandemic, one must master plans to reduce its impact (Castro-de-Araujo & Machado, 2020). Moreover, Ozamiz-Etxebarria *et al.* (2020) raised the need to continue conducting research studies to prevent and treat psychological problems that could appear during the pandemic. According to evidence, loneliness is correlated with poor mental health (Perlman *et al.*, 1984). Also Heinrich and Gullone (2006) stated that satisfying social relationships are necessary for good mental and physical health; therefore, they recommend that the mitigation and prevention of social relationship deficits should be the main focus of clinicians.

### *Loneliness*

Loneliness definitions depict the negative personal experience of a relational weakness or shortcoming, which is not the same as being alone (Heu *et al.*, 2021). Moreover, Loneliness is a human experience that is unique to every individual, and it can lead to low self-esteem and depression (Bekhet *et al.*, 2008), and many recent studies indicated that lonely individuals are at a significant health risk (Geller *et al.*, 1999). There are increasing concerns about the rates and effects of loneliness all over the world (Fried *et al.*, 2020; Patkar *et al.*, 2020). This is because the level of loneliness increases due to the COVID-19 pandemic, and the more challenging matter is that transmission of the virus is still going on globally.

### *Loneliness during COVID-19 Pandemic*

Loneliness is a significant risk factor for healthy development and prosperity. Although loneliness has been detected to play an important role in mental health and well-being, little is known about alleviation procedures, especially during crises such as the COVID-19 pandemic (Arslan, 2021).

Since the unparalleled spread of the coronavirus worldwide, all countries have witnessed lockdown and many measures were adopted to contain and limit its transmission. Due to this extraordinary crisis, several research studies have concentrated on loneliness among the population (Bu *et al.*, 2020a, 2020b; Groarke *et al.*, 2020; Killgore *et al.*, 2020a; Killgore *et al.*, 2020b; Killgore *et al.*, 2020c; Li & Wang, 2020; Luchetti *et al.*, 2020; Dahlberg, 2021).

Most research studies revealed that the rate of loneliness increases during the COVID-19 pandemic. Bu *et al.* (2020a) findings showed four categories with the baseline loneliness level ranging from low to high. Furthermore, risk factors for loneliness were almost congruous before and during the coronavirus pandemic (Bu *et al.*, 2020b). On the one hand, older adults stated less loneliness in comparison to younger age groups during the COVID -19 pandemic (Luchetti *et al.*, 2020). On the other hand, younger adults and women were risk factors for loneliness (Bu *et al.*, 2020a; Bu *et al.*, 2020b; Li & Wang, 2020). It has been argued that living with a lot of adults, being married and high level of social support, were preventive factors



(Groarke *et al.*, 2020). Also, González-Sanguino *et al.* (2020) proved that the greatest protector was spiritual well-being, whereas loneliness was the strongest predictor of depression, anxiety, and post-traumatic stress disorder.

Bu *et al.* (2020b) explained that during the pandemic, risk factors for loneliness were nearly typical than before. Also, young adults; females; lower education or income; economically idle; individuals living alone and city inhabitants had a higher risk of being lonely. In addition, Persons aged 18–30 years, low income and adults living alone, were at risk of being lonely and experienced an extreme risk during the COVID-19 pandemic as compared to people living before the COVID-19; in addition to the fact that being a student turned out to be a higher risk element of loneliness during the lockdown as it was used to be. Groarke *et al.* (2020) findings mentioned that higher levels of social support such as being married, cohabiting, and living with a lot of adults, were preservable factors. The study by Luchetti *et al.* (2020) investigated the change in loneliness in response to the social restriction measures adopted to limit the coronavirus spread, and the results revealed that older adults reported less loneliness overall compared to younger age groups, but had an increase in loneliness during the acute stage of the outbreak.

### *Previous Studies*

Some studies investigated the level of loneliness among university students during the COVID-19 pandemic. For example, Wilczewski *et al.* (2021) conducted a study among the international students at the University of Warsaw in Poland during (COVID-19) pandemic, (N= 357) international students from 62 countries, (236) in the host country and (121) in the home country. The results showed increased levels of loneliness among self-isolating students in both countries.

Another study was carried out by Labrague *et al.* (2020) among college students during the COVID-19 pandemic. The sample size was (303) students from the Central Philippines, and a cross-sectional research design was adopted. The results indicated that during the COVID-19 pandemic, loneliness among the students was high and the preventative factors against it were resilience, coping behaviors, and social support.

Al-Fiqi and Aboel-Fetouh's (2020) research study aimed at determining the nature of some psychological problems (loneliness, depression and psychological distress, obsessive compulsions, boredom, eating disorders, sleep disorders, social phobia) caused by the COVID-19 among Egyptian university students. A descriptive-analytical method was used, and the results showed that boredom was one of the most psychological problems experienced by the students and suffering from other psychological problems moderately. Also, there was a statistically significant difference in psychological problems according to gender, age, while there was no statistically significant difference due to the environment.

Elmer *et al.* (2020) examined students' social networks and mental health pre and during the COVID-19 pandemic in April 2020. Longitudinal data collected since 2018 were used. Change in social networks (co-studying, friendship, interaction, and social support) and mental health indicators (such as loneliness, depression, stress, and anxiety) were analyzed within two groups of Swiss undergraduate students experiencing the crisis (N = 212) and made additional comparisons to an earlier group which did not experience the crisis (N = 54). Findings



revealed that the levels of stress, anxiety, loneliness, and depression got worse, in comparison to measures before the crisis.

### *Comment on Previous Studies*

The current research is consistent with previous studies such as Wilczewski *et al.* (2021), Labrague *et al.* (2020), and Al-Fiqi and Aboel-Fetouh (2020) which focused on loneliness among university students during the COVID-19 pandemic. The most significant characteristic of this research is its difference in terms of the sample because the previous studies' samples were from Poland, Swiss, the Philippines, and Egypt. Most importantly, none of the previous studies had examined the difference in loneliness among university students due to gender and the marital status during the COVID-19 pandemic.

### *Research Hypotheses*

1. The level of loneliness among the students of the Faculty of Science and Arts during the outbreak of the Novel Coronavirus is high.
2. There are significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of the Novel Coronavirus according to gender variable.
3. There are significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of the Novel Coronavirus according to the marital status variable.

## **MATERIALS AND METHODS**

A descriptive approach was adopted for its suitability with the objectives of the current research, which intended to reveal the level of loneliness among the students during the spread of the Novel Coronavirus, and the differences between the students in loneliness due to gender and marital status. The reason behind using the descriptive method is that it reflects data on the phenomenon as it occurs in reality.

### *Sample and Population*

The research population was represented by the students of the Faculty of Science and Arts in Rafha campus, Northern Border University in the first semester of the academic year 2020-2021, (n= 1160) students, (383) male and (777) female students. The sample of the research consisted of (365) students who responded electronically, and they represent (31.47%) of the research population. The data were collected in November and December 2020.

### *Research Sample Descriptions*

**Table 1** shows study sample descriptions according to Gender and Marital status variables

**Table 1.** Study sample descriptions according to Gender and Marital status variables

| Descriptions Variables | Levels  | Frequency | %     |
|------------------------|---------|-----------|-------|
| Gender                 | Males   | 83        | 22.7  |
|                        | Females | 282       | 77.3  |
|                        | Total   | 365       | 100.0 |

|                |         |     |       |
|----------------|---------|-----|-------|
| Marital status | Married | 45  | 12.3  |
|                | Single  | 320 | 87.7  |
|                | Total   | 365 | 100.0 |

### *Tools of the Research*

The researcher used the following tools:

1. A preliminary Data Form (designed by the researcher)
2. UCLA Loneliness Scale by Russell *et al.* (1980), which was translated and standardized in Saudi setting by Khider and Al-Shennawi, as stated by Al-Asimi (2009). The researcher adopted this scale for the following reasons:
  - 1) The scale has excellent psychometric properties and high stability as Al-Asimi (2009) mentioned that Russell found that the coefficient of stability by Alpha Cronach (0.94); and Khider and Al-Shennawi found that the stability factor was (0.87); and in Al-Asimi's study, the stability coefficient reached (0.86) as it was calculated by Split half Reliability.
  - 2) The scale has been used to measure loneliness among university students.
  - 3) The scale was standardized in the Saudi setting.

The scale consists of (20) items being answered by choosing one of the four response options: never, rarely, sometimes, and always. The positive expressions have been dealt with in descending order (4, 3, 2,1), whereas the negative expressions in ascending order (1, 2, 3,4).



### *Validity and Reliability of Scale in the Current Research*

#### *Pilot Study for the Loneliness Scale:*

To investigate the measurement properties of the items that concerning the Loneliness Scale, the researcher applied a pilot sample consisted of (40) students being selected randomly from the current research population. After scoring the responses, the researcher did the following:

#### *A – Items' Internal Consistency*

The researcher applied the Person correlation equation to get correlation coefficients between the scores of each item to the total score of the Loneliness Scale. The following table shows the results of these computations:

**Table 2** shows Person corrected item-total Person correlation coefficients for items of Loneliness Scale (n = 40).

**Table 2.** Person corrected item-total Person correlation coefficients for items of Loneliness Scale

| Item No. | Item-Total Correlation | Probability (significant) | Item No. | Item-Total Correlation | Probability (significant) |
|----------|------------------------|---------------------------|----------|------------------------|---------------------------|
| 1        | .730                   | .001                      | 11       | .704                   | .001                      |
| 2        | .299                   | .031                      | 12       | .702                   | .001                      |
| 3        | .462                   | .001                      | 13       | .408                   | .004                      |
| 4        | .724                   | .001                      | 14       | .716                   | .001                      |
| 5        | .549                   | .001                      | 15       | .670                   | .001                      |
| 6        | .715                   | .001                      | 16       | .399                   | .005                      |

|    |      |      |    |      |      |
|----|------|------|----|------|------|
| 7  | .705 | .001 | 17 | .318 | .023 |
| 8  | .622 | .001 | 18 | .635 | .001 |
| 9  | .499 | .001 | 19 | .608 | .001 |
| 10 | .818 | .001 | 20 | .587 | .001 |

From the previous **Table 2**, it is clear that the values of all correlation coefficients were positive, and most of them were significant at level (0.001), while the rest were at level (0.05). These results indicate that all items have a high internal consistency with the scale total score.

### B – Reliability Coefficients

The researcher computed both Cronbach's Alpha and Spearman-Brown's Coefficients for Loneliness total scores. **Table 3** shows the results of these computations:

**Table 3.** Results of Cronbach's Alpha and Spearman-Brown Reliability Coefficients Loneliness total scores

|                         | No of Items | Reliability Coefficients |                |
|-------------------------|-------------|--------------------------|----------------|
|                         |             | Alpha                    | Spearman-Brown |
| Loneliness total scores | 20          | .902                     | .937           |

## RESULTS AND DISCUSSION

### Hypothesis 1

To test hypothesis (1), which states " The level of loneliness among the students of the Faculty of Science and Arts during the outbreak of Novel Coronavirus is high ", the researcher applied one sample (t) test, and the following Table shows the results of these computations:

**Table 4.** Results of the One-Sample T-Test to determine the level of loneliness among the students of the Faculty of Science and Arts during the outbreak of the Novel Coronavirus (n = 365)

| Variable               | Mean  | SD    | Test Value* | Cal. (t) value | P. (Sig) | Statistical Inference |
|------------------------|-------|-------|-------------|----------------|----------|-----------------------|
| Loneliness Total cores | 42.65 | 12.84 | 50          | -10.929        | .001     | Below the average     |

(\*) The test value is the theoretical mean for the theoretical scores.

From **Table 4**, the researcher notes that the mean value is (42.65) and the calculated (t) value is (-10.929) with probability (0.001). These results indicate that the level of loneliness among the students of the Faculty of Science and Arts during the outbreak of the Novel Coronavirus is below average.

The result of the first hypothesis is consistent, to some extent, with the study conducted by Al-Fiqi and Aboel-Fetouh (2020) which showed that students had suffered from loneliness moderately. This result is different from the result of the study carried out by Labrague *et al.* (2020), which revealed a high level of loneliness among the students during the COVID-19 pandemic. Therefore, the researcher thinks that this difference might be attributed to the nature of the samples. Moreover, the findings of Wilczewski *et al.* (2021) showed increased levels of loneliness among self-isolating students.



Although the level of loneliness among the students of the Faculty of Science and Arts during the outbreak of the Novel Coronavirus was below the average, psychological support is needed to save and protect the students' mental health, as the results of previous studies revealed that the rate of loneliness among the students increased during the pandemic; and being a student was a risk factor for loneliness.

The researcher is in favor of Williams *et al.* (2021) view that to deal with this public health problem, effective interventions are urgently needed. It has been argued that it is important to keep an eye on the state of mental health of the people to prevent and treat possible mental illnesses in the future (Ozamiz-Etxebarria *et al.*, 2020). This is because the rate of infections is globally unparalleled, so more effort and much attention should be paid to face this challenge.

### *Hypothesis 2*

To test hypothesis (2), which states "There are significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of Novel Coronavirus according to gender variable", the researcher applied a non-parametric test, namely the Mann-Whitney Test. The following Table shows the results of this procedure:

**Table 5.** The results of the Mann-Whitney test to determine the significance of differences among the students of the Faculty of Science and Art in loneliness during the outbreak of Novel Coronavirus according to gender variable

| Variable               | Gender  | Mean of ranks | U Value | Cal. (z) Value | Sig. Level | Statistical Inference    |
|------------------------|---------|---------------|---------|----------------|------------|--------------------------|
| Loneliness Total cores | Males   | 153.82        | 9281    | 2.868          | .004       | Female's Mean is greater |
|                        | Females | 191.59        |         |                |            |                          |



It can be noticed from **Table 5** that male students' mean value is (153.82); female students' mean value is (191.59), and the value of calculated (z) is (2.868) with probability (0.004), i.e. it is significant. These results indicate that there are significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of the Novel Coronavirus according to gender variable. Female students' mean is greater than the male students' mean.

None of the previous studies such as Al-Fiqi and Aboel-Fetouh (2020), Labrague *et al.* (2020), and Wilczewski *et al.* (2021), which investigated loneliness among university students during the COVID-19 pandemic, had examined variation in loneliness according to gender, and this fact raises the significance of the current research. These results are consistent with the previous studies such as Bu *et al.* (2020a), Li and Wang (2020), Bu *et al.* (2020b), Rodríguez-Rey *et al.* (2020) which focused on loneliness among the population in general, and their results revealed that females had a high risk of being lonely during the COVID-19 pandemic. Accordingly, the researcher believes that there is a need for more research studies to investigate the reasons behind the negative effects of COVID-19 on female mental health, particularly loneliness, to develop strategies to face this public challenge. In addition, adopting strategies to guarantee that students have access to counseling and support during the pandemic is a vital way to avoid and reduce the negative impact of the pandemic on the mental health of the students.

*Hypothesis 3*

To test hypothesis (3), which states "There are significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of Novel Coronavirus according to the marital status variable", the researcher applied a non-parametric test, specifically the Mann-Whitney Test. The following Table shows the results of this procedure:

**Table 6.** The results of the Mann-Whitney test to determine the significance of differences among the students of the Faculty of Science and Art in loneliness during the outbreak of Novel Coronavirus according to the marital status variable

| Variable               | Marital status | Mean of ranks | U Value | Cal. (z) Value | Sig. Level | Statistical Inference            |
|------------------------|----------------|---------------|---------|----------------|------------|----------------------------------|
| Loneliness Total cores | Married        | 183.97        | 7157    | 0.066          | .474       | The difference isn't significant |
|                        | Single         | 182.86        |         |                |            |                                  |

**Table 6** shows that married students' mean value is (183.97); single students' mean value is (182.86), and the value of calculated (z) is (.066) with probability (0.474), i.e. it isn't significant. These results indicate that there are no significant differences among the students of the Faculty of Science and Art in loneliness during the outbreak of the Novel Coronavirus according to the marital status variable.

All the previous studies such as Al-Fiqi and Aboel-Fetouh (2020), Labrague *et al.* (2020), and Wilczewski *et al.* (2021) which focused on loneliness among university students during the COVID-19 pandemic did not investigate the differences in loneliness due to marital status, and this also marks the significance of the current research.

Groarke *et al.* (2020) findings revealed that a higher level of social support such as being married is a preservable factor. Furthermore, Gubrium (1974) and Stack (1998) stated that loneliness is not so much common among married persons. Accordingly, the researcher believes that this hints at a need for more studies because COVID-19 is extraordinary.

In general, the researcher agrees with Giallonardo *et al.* (2020) that it is very important to have a clear perception of the effect that these new stresses are having on mental health and well-being to develop and generalize appropriate protective interventions for the general population as well as the groups at-risk.

## CONCLUSION

The research aimed to investigate the level of loneliness among the students of the Faculty of Science and Arts in Rafha campus, Northern Border University, KSA during the outbreak of the Novel Coronavirus, and identify the differences among the students in loneliness according to variables of gender and marital status. To achieve the goals of the research, a descriptive method was adopted and data were collected electronically. To test the hypotheses of the research, statistical methods were used and the results revealed that the level of loneliness among the students of the Faculty of Science and Arts during the outbreak of the Novel Coronavirus was below the Average. Female students' mean was greater than male students'



mean, and there were no significant differences among the students in loneliness due to the marital status variable.

According to these results, the researcher presents some recommendations, because adopting appropriate strategies is necessary to protect the students' mental health and eradicate the negative impact of the COVID-19 pandemic. In addition, suggestions for further research studies were proposed.

### *Recommendations*

Based on the research results, the following recommendations have been made:

1. Implementing online psychological counseling programs for the students during the pandemic.
2. Providing online training courses for the students to support them psychologically and protect them from the negative impacts of the pandemic since the spread of the virus is still going on globally.
3. Much attention should be paid to the impacts of the pandemic on the mental health of female university students.

In the light of the research findings, the researcher proposes the following suggestions:

1. Conducting a research study to investigate the mental disorders associated with loneliness among female university students.
2. Conducting a research study to reveal depression among female university students because of its positive relationship with loneliness.
3. Carrying out a similar research study during the pandemic in other colleges of the university.
4. Researching to examine whether there are significant differences in loneliness between the student who has been infected with the virus and those who have not been infected with it, to determine which group is suffering more and should be concentrated on accordingly.



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