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**Research Paper**

# Illness Anxiety, Loneliness and Substance Use During Covid-19 Period

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## ABSTRACT

Covid-19 has tremendously impacted the physical and mental health of individuals across the globe. Many have lost their loved ones, jobs, finances, etc. which is enough to change an individual's life upside down. Though it is to be noted that some groups are more vulnerable than the others. This study aims to identify how males and females' attitudes towards illness have changed, along with their indulgence in substance use, and how the situations have made them feel lonely and withdraw from their relationships. The study invited 200 participants of the general population, who were requested to fill questionnaires consisting of items based on Socio-demographics, Brief Addiction Monitor, UCLA, and Whiteley-Index. For the purpose of this study, we hypothesized that high degrees of loneliness might predict the use of substances. We are also trying to predict whether people have symptoms of illness anxiety with relation to loneliness and substance use and to check a significant difference between genders. And finally, we have also studied whether illness anxiety and loneliness have a strong positive correlation or not. Single and multiple linear correlation, regression, and t-test were used to find the cause-effect relationship. The findings showed that substance use and illness anxiety has a moderate, loneliness and illness anxiety has a weak, and substance use and loneliness has a strong positive correlation. The paper also aims at suggesting empirically based techniques to deal with these issues.

***Keywords:*** *COVID-19, pandemic, loneliness, substance-use, illness anxiety, correlation.*

In December 2019, the world witnessed novel cases of unidentified virus as an epidemic of pneumonia in Wuhan (China) (Samui et al., 2020).This virus subsequently spread rapidly across the world and led to pandemic known as COVID-19 (Özdin & Özdin, 2020).With communicable traits like fever, dry cough, sore throat, breathlessness and fatigue, the disease has now spread throughout the world infecting more than 173 million people and killing almost 4 million thus making it a global pandemic (WHO). The first case of COVID (CoronaVirus Disease) in India was reported on 27January, 2020 in Kerala (Andrews et al., 2020) and till today, there have been more than 29 million cases.

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COVID-19 has required almost all countries across the globe to implement lockdowns and early quarantine measures in order to curb the spread of this virus (Dubey et al., 2020). In India, the first wave of COVID-19 started in March, 2020 followed by the first national observation on March 22,2020 (Andrews et al., 2020) and since then, there have been several versions of lockdown where people had to quarantine.

During February 2021, a second wave was reported with intensified symptoms and record-breaking mortality rates. This wave witnessed severe cases because several new double-mutant and triple-mutant strains of virus were introduced, which were more severe than initial strains. The vaccines have low response to SARS-CoV-2 double-mutant strain B.1.617 which makes it even more infectious. This, along with triple-mutant B.1.618 strains, are responsible for the surge in COVID-19 cases and the deteriorating situation here (Cherian et al., 2021).

During the second wave, we came across many cases of black fungus, yellow fungus and even white fungus, all of them being fatal and majorly affecting the diabetic patients and those in the recovery phase of COVID-19. Although black fungus cases were reported during the first wave, the cases became more prominent during the second wave. Therefore, it was declared an epidemic (Dyer et al., 2021). By June, 2021, the recorded cases of black fungus were 28 252, as reported by the Indian Ministry of Health (Sahoo et al., 2021). India's situation during the second wave was seen to be worsened due to various factors for example- there were new mutant strains, high demand of oxygen and ventilator support, poor air quality, panic on social media, people breaking protocols because of bad psycho-social and economic conditions.

A prominent difference between the first and the second wave is the age group of people getting infected. During the first wave, the patients were geriatrics, whereas, during the second wave, mostly pediatric and younger individuals got infected with addition to the geriartric ones (Hippich et al., 2021). Although there is no significantly higher increase in the percentage of death rate during the second wave (Rai, 2021). Recently, three vaccines were approved by the government with a planned vaccination programme to eradicate and control this epidemic. As of today, 52,95,82,956 people have been fully vaccinated and the number of active cases has reduced by 1.20% (Ministry of health and family welfare, 2021). Additionally, there are better trained professionals, caretakers, and staff in hospitals. Increased production of ventilators, enhanced bed availability and improved hospital situations such as 2-meter social distancing rules have also contributed to control this epidemic.

Previous outbreaks have reported that psychological impact of quarantine imposed by lockdowns can have effects like irritability, fear of contracting and spreading infection to family members, anger, confusion, frustration, loneliness, denial, anxiety, depression and insomnia (Robertson et al., 2004; Liu et al., 2012 & Dubey et al., 2020). However, not much has been studied regarding these impacts during lockdowns.

Although there are some studies which evaluates the impact of COVID-19 on various aspects such as health (Chatterjee et al., 2020), society (Alan et al., 2020; Verma & Prakash, 2020), education (Burgess & Sievertsen, 2020), economy (McKibbin & Fernando, 2020) and globalization (Shrestha et al., 2020) there are only a few studies which explores illness anxiety in terms of COVID-19 (Trougakos et al., 2020) and even fewer with regards to substance use (Ornell et al., 2020). However, it should be noted that those individuals who

engage in any substance consumption or with Substance Use Disorder (SUD) are at greater risk for contamination due to their psychological and social conditions. Additionally, such individuals can act as agents for transmission. Therefore, it is important to explore this variable in depth in relation to COVID-19. The present study aims to explore substance consumption behavior and its psychological impact during the second wave of the pandemic among the general population in India.

## LITERATURE REVIEW

Cauberghe, Wesenbeeck, Jans, Hudders, Ponnet (2021) examined through mood management theory, whether social media is beneficial for coping with anxiety and loneliness during the quarantine period of COVID-19 among adolescents. A total of 2,165 (Belgian) adolescents from the age group 13-19 years took part in the survey study. The survey aspired to explore the relationship between different social media coping strategies and feelings of loneliness and anxiety. From the structural equation modeling, it was noted that feelings of loneliness had caused a higher negative impact on adolescents' happiness in comparison to the feelings of anxiety. Respondents having high anxiety levels indicated that the use of social media is more to deal with the current situation of COVID-19, and it was less used as a means of socializing with family and friends. Indirect effect of anxiety on happiness can be seen through active coping resulting in signification. The participants who reported being lonely are more inclined to spend time on social media as a means to cope with lack of social support. However, coping with social media is not linked with their feelings of happiness. Coping with humor was positively linked to feelings of happiness. Humor is not related to loneliness or anxiety.

Haig-Ferguson, Cooper, Cartwright, Loades and Daniels (2021) studied health anxiety in children and young people during the Covid-19 pandemic. The researchers conducted a meta-analysis of existing literature on adult health samples, as there is a dearth of literature on children for their assessment and treatment. The study provides certain suggestive measures which could prevent and reduce the health anxiety among children and young people. One of the suggestive measures, adopting a multi-informant approach to assessment, involving use of previously existing scales of health anxiety with other clinical methods would be beneficial in identifying health anxiety. Secondly, developing individualized plans would address cognitive, behavioral and emotional components, on the basis of Cognitive Behavioral Therapy. For formulating this plan, it is crucial to take into account the developmental changes that take place in children. Thirdly, relying on the previously existing evidence based health anxiety treatment will be helpful.

Okechukwu (2021) conducted a narrative review to examine loneliness resulting from public health social isolation measures intended to reduce the prevailing physical and mental health conditions in older adults. The researchers did a meta-analysis in order to examine the research aim through the PubMed electronic database. In the times of COVID-19, social isolation has a negative impact on older adults in terms such as lack of companionship, social isolation, and connections have a negative impact on the older adults. The study concluded the need to indulge in physical activity, sightseeing as well as playing games with people their age.

Savage, Wu, Li, Lawson, Bronskill, Chamberlain, et al., (2021) evaluated the extent of loneliness and its association among older adults in the first wave of COVID-19. An online cross-sectional survey was conducted on members of the RTO ERO on 4879 respondents in Ontario, Canada. There were several questions adapted from the Stanford Coronavirus

Survey, Canadian Longitudinal Study on Aging (CLSA). The research concluded that characteristics such as being female and living alone were reported as a feeling of loneliness in the older adults. Loneliness was associated more with females than males.

Vargaa, Bu, Dissing, Elsenburg, Bustamante, Matta et al., (2021) examined a project showing the significant similarities and differences in major mental-health factors between four western and northern european countries, and aimed at identifying subgroup populations having mental-health outcomes. The research used time series survey data from seven studies of Denmark, France, the Netherlands, and the UK having a total population of 205,084. Through these seven studies the impact of lockdown and pandemic was studied. This study also focused on the initial lockdown phase (March-July 2020). Loneliness, anxiety and COVID-19 are the major outcomes which relate to worries and precautionary behaviors. The findings indicate constantly higher worry related to COD-19 in all the respective countries in the project. Higher levels of loneliness were reported to be only 7% among Netherland data, while the rest of the country had a higher percentage (1318%). Those individuals belonging from all the four countries, having a past history of mental illness showed the highest level of illness.

Varma, Junge, Meaklim & Jackson (2021) explored the factors which potentially regulated the relationship between mental health and stress due to the impact of the COVID-19 pandemic on psychological distress globally. This study was conducted on 1653 participants who belonged from 63 countries. The Patient Health Questionnaire and State Trait Anxiety Inventory were used to measure depression and Anxiety respectively. Perceived Stress Scale, the Brief Resilient Coping Scale, 3-item UCLA Loneliness Scale andthe Pittsburgh Sleep Quality Index were also used in the study. The study revealed that there is a high level of anxiety, depression and stress irrespective of the COVID- 19 cases. Greater psychological distress is experienced by those with a previous diagnosis of mental health issues. Factors like poor sleep, reduced resilience level, loneliness, and young age significantly controlled the association between stress and depression, as well as stress and anxiety. Variation in age indicated vulnerability towards stress, depression and anxiety symptoms among the younger group.

Ferdous, Islam, Sikder, Mosaddek and Gozal (2020) analysed knowledge, attitude and practice towards COVID-19 in the peak period and immediately after the lockdown measures which were brought in practice in Bangladesh. A total of 19 questions were asked from the sample population of the research, which targeted people from the age group of 12–64 years. The questions asked were modified and derived from "MERS-CoV disease [23, 24], infection prevention and control measures for COVID-19 by World Health Organization [25], and guidelines suggested by the country's Institute of Epidemiology, Disease Control and Research (IEDCR) [26]". The result revealed that sociodemographic factors like older age, employment, higher education and monthly family income have more impact on 30,000 Bangladeshi Taka. Also, the study shows a more frequent prevention practice factors was linked to factors such as female sex, older age, family income, higher education in comparison to 30,000 Bangladeshi Taka, urban area residence as well as higher positive attitudes.

Hoffart, Johnsonn, & Ebrahimi (2020) researched the potential risk and resilience factors causing loneliness among the Norwegian population in the times of strict social distancing non-pharmacological interventions (NPIs) which was administered against the pandemic as well as the link between the symptom of loneliness and psychopathology. An online survey

was conducted on 10, 061 adult Norwegian people. The online survey included the scales- The UCLA Loneliness Scale-8 (ULS-8), The Patient Health Questionnaire-9 (33), The Generalized Anxiety Disorder-7 (GAD-7), Health Anxiety Inventory (HAI), Cognitive Attentional Syndrome-1. The results suggested that loneliness had a higher impact during implementation of measures of social distancing on those who are single and those with a psychiatric diagnosis. Further, the analyzed results stated reduced loneliness as an intervention target for potential risk and resilience factors in the times of covid.

Özdin & Özdin (2020) assessed the degree of depression, anxiety and health anxiety among the Turkish population in the time of COVID-19 pandemic as well as interrogated the factors affecting these psychological factors. By using an online questionnaire mode, participants were asked to provide socio-demographic data, the Hospital Anxiety and Depression Scale (HADS) and the Health Anxiety Inventory (HAI). On the basis of these questionnaires and socio-demographic data of 236 participants, presence of coronavirus in patients, relatives and friends along with current psychiatric illness and co-occurring chronic disease were studied. The result revealed that 81 participants had a higher depression cut-off point, while 155 participants had a higher anxiety cut-off point. This cross- sectional study concluded that women are more impacted by COVID-19 pandemic, having a past history of psychiatric illness and chronic disease.

Palgia, Shrirab, Ringa, Bodner, Avidorc, Bergmand et al., (2020) evaluated the presence of psychiatric symptoms such as depression, anxiety, along with their comorbidity in Israel, especially during the times of restrictive social distancing. Through Qualtircs, in an online survey a total of 1059 Israel population participated in the study. The items that the participants were asked to respond to were related to loneliness levels (3-items, taken from Hughes et al., 2004), depression (PHQ-9, taken from Spitzer et al., 2006), and general anxiety (GAD-7, taken from Kroenke et al., 2001). The study had two major findings. One of the major findings indicated that old age as a risk factor for Covid-19 had negatively been associated with anxiety and depression. The second major finding loneliness resulting from social-distance policy, is seen to be a crucial risk factor for increase in anxiety, depression, along with their comorbidity.

Roy, Tripathy, Kar, Sharma, Verma, and Kaushal (2020) evaluated parameters such as "knowledge, attitude, anxiety experience, along with perceived mental health care" requirements during the COVID-19 pandemic in the adult Indian population, especially in adults. The researchers conducted an online survey, which consisted of a semi- semi-structured questionnaire covering the aspects such as (knowledge), attitude, and anxiety and perceived mental health care on 662 participants. Through the study it was explored that moderate awareness and prevention of COVI-19 infection was present among the respondents. The study indicated higher levels of anxiety and reported more than 80% of people are pre consumed with the thought of COVID-19, while 72% respondent felt the need of a mask. Moreover, having sleep difficulties (12.5 %), paranoia (37.8 %), and distress (36.4 %) about acquiring COVID-19 infection from social media was reported by participants. Approximately 80% participants stated the need for health care.

Salari, Hosseinian-Far, Jalali, Vaisi-Raygani, Rasoulpoor, Mohammadi et la., (2020) examined the previous research literature and results with regards to situations pertaining stress, anxiety and depression among the general population in Covid-19 pandemic. This research study was based on systematic review and meta-analysis, which emphasized articles centering on the prevailing stress and anxiety in the general population in the covid-

19. For the purpose of study, databases such as Science Direct, Embase, Scopus, PubMed, Web of Science (ISI) and Google Scholar databases were used. The result indicated that Physical health was not the only factor responsible for covid-19, but psychological factors were also crucial. Mental health of various communities is impacted by the spread of Covid-19. Therefore, it is vitally important to prevent deterioration of mental health of individuals as well as developing psychological interventions which will enhance the mental health of individuals who are in vulnerable groups in the current situation.

## METHODOLOGY

### *Aim*

- The current study will investigate the correlation of loneliness and substance use.
- To inspect whether illness-anxiety and loneliness are significantly correlated.
- The aim is also to assess the significant correlation between substance use and illness-anxiety.
- Also, to check whether there are any significant gender differences when it comes to correlation among the variables of interest.

### *Objectives*

Major and specific research objectives were:

- To study the significant correlation between loneliness and substance use.
- To check whether illness-anxiety and loneliness have a significant correlation.
- To assess whether substance use and illness-anxiety are significantly correlated.
- To predict whether there are any significant gender differences in relation to the variables of interest.

### *Hypothesis*

The following hypotheses were made with respect to the study objectives:

- Individuals with a high degree of loneliness result in a higher rate of substance use.
- There will be a significant correlation between illness anxiety and loneliness.
- The use of substance is associated significantly with illness anxiety.
- There are significant gender differences in relation to the three variables of interest.

### *Research design*

The study will be correlational in nature as it studies the relationship between illness-anxiety, loneliness and substance use.

The variables in this study are-

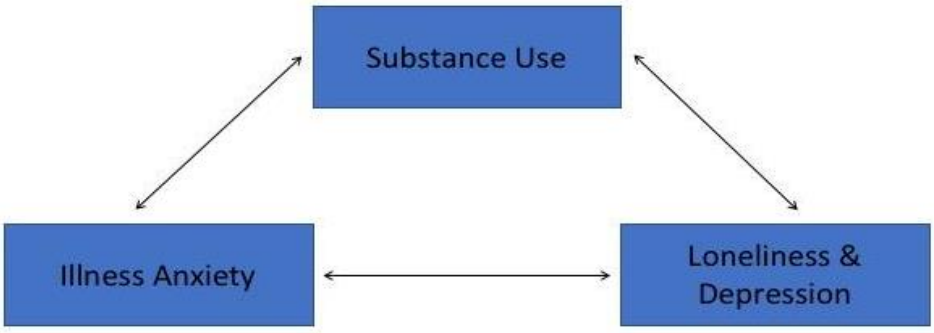
**Dependent variable-** substance use
**Independent variable-** illness-anxiety, loneliness

### *Sample description*

The sample includes participants above the age of 18 years. They will be chosen randomly to ensure randomization and reliability of study. Target population is both males and females, from all ethnicities in India. Minimum of 200 participants are recruited.

***Tools used***

- **Demographic Questionnaire:** This questionnaire will contain general information items like name (anonymous)/participant code, age, date of birth, occupation, disability, ethnicity, type of place where they live (e.g., city, town, village), educational qualification, sexual orientation.
- **Brief Addiction Monitor-17:** The scale consists of 17 standardized statements/ questions with respect to different aspects of life. The domains like- health, alcohol, drug use, etc. the participants are asked to carefully read those questions and respond to the most appropriate options. Each question/statement has 5 options to choose from. This scale is usually used in clinical settings. The statements relating to risk factors are marked by sub-items 1, 2, 3, 8, 11, & 15; protective factors are marked by sub-items- 9, 10, 12, 13, 14, & 16; use related sub-items are 4, 5, & 6. However, item no. 7 and 17 have separate scoring.
- **Whiteley Index-14**: The scale comprises 14 items measuring illness anxiety, having options either a yes or a no. There is a positive marking for each item, but Item 9 has reversed scoring.
- **UCLA Loneliness Scale**: The scale was developed in 1996 and exists in two versions. It measures self-reported feelings of loneliness; social isolation of an individual. The scale consists of 20 statements which are marked by the participant on these options- "O (“I often feel this way”); S (“I sometimes feel this way”); R (“I rarely feel this way”); N (“I never feel this way”)." Each option has the following numerical values for convenient scoring- all O’s =3, all S’s =2, all R’s =1, and all N’s =0.




***Procedure***

The google forms were shared online through various means of social networking sites. This ensured that participants will be anonymous and in no way convenience sampling is going to be applied. The mode for gathering data was solely online, through google forms since its COVID-19 times. As the participants receive and open the form, their consent for participation is taken before beginning the conduction. After that, they were instructed to fill the 4 questionnaires which were confined into a single google form with 4 separate sections. The sections are divided into- Demographic questions, Questionnaire 1, Questionnaire 2, and Questionnaire 3. The instructions are written below each section along with the options to choose from. Instructions are easy to comprehend and presented according to the scale used. Incomplete forms and those not meeting the criteria were eliminated from inclusion. After obtaining the data, it was changed into tabular form, scored and interpreted according to the scoring manuals of each tool used.

## RESULTS AND DISCUSSION

The main objective of the study was to evaluate how the genders' (male and female) attitudes towards illness have changed, along with their indulgence in substance consumption, and how the situations have made them develop feelings of loneliness and withdrawal from their friends and relationships. An effort is made to explain the relationships between the variables under study, illness anxiety, also known as 'hypochondriasis', substance use, and loneliness. Various hypotheses were made with respect to the objectives in order to test how substance consumption and use relates to illness, anxiety and loneliness in individuals. To test the study, 200 participants voluntarily participated; they were selected randomly. Debriefing was done beforehand, their doubts were cleared, and consent was also taken prior to beginning the conduction. Confidentiality was assured.

***Table 1 Descriptive statistics for variables under study***

| Variables | BAM | WI | UCLA |
|---|---|---|---|
| Mean | 17.30808081 | 27.0959596 | 44.41414141 |
| Standard Error | 0.473959298 | 0.688073045 | 0.772150894 |
| Median | 18 | 25 | 45 |
| Mode | 18 | 14 | 47 |
| Standard Deviation | 6.669198489 | 9.682045964 | 10.86512616 |
| Sample Variance | 44.47820848 | 93.74201405 | 118.0509665 |
| Kurtosis | -0.02059107 | 1.908314706 | -0.20282805 |
| Skewness | -0.245773939 | 1.20343359 | 0.211780269 |
| Range | 35 | 50 | 53 |
| Minimum | 0 | 14 | 23 |
| Maximum | 35 | 64 | 76 |
| Sum | 3427 | 5365 | 8794 |
| Count | 198 | 198 | 198 |

Table 1 presents the descriptive statistics for the variables under study. The variables are illness anxiety, substance use, and loneliness. Values of measures of central central tendency (mean, median, and mode) and measures of central variance (variance, deviation, range) are obtained in the table through data analysis.

***Table 2 Correlation between illness anxiety, substance use, and loneliness***

| Variable | BAM | WI | UCLA |
|---|---|---|---|
| BAM | 1 | | |
| WI | 0.533556251 | 1 | |
| UCLA | 0.072976596 | 0.257730084 | 1 |

$p<.05$

Table 2 represents the correlational aspect among the variables under study. According to the table, the correlation among variables is as follows:

| | | |
|---|---|---|
| BAM & WI | 0.533556251 | Moderate Positive Correlation |
| WI & UCLA | 0.257730084 | Weak Positive Correlation |
| UCLA & BAM | 0.072976596 | Weak Positive Correlation |

**Hypothesis 1** postulated that "Individuals with a high degree of loneliness result in a higher rate of substance use". Results in table 2 indicate that loneliness has a weak positive

correlation with substance use, with a value of 0.0729 which is greater than our set level of significance i.e., 0.05. Thus, the hypothesis is accepted. However, the obtained p-value shows weak correlation, but it is positive in nature. Therefore, it is safe to say that both loneliness and substance use have a direct influence over each other. If loneliness increases, substance use also increases, and vice-versa.

**Hypothesis 2** postulated that "There might be a significant correlation between illness anxiety and loneliness". Results in table 2 indicate that illness, anxiety and loneliness have a weak positive correlation, with a numerical value of 0.2577. This is greater than our set level of significance i.e., 0.05. Thus, we accept the hypothesis postulated. By accepting the hypothesis, we mean that changes in the patterns of illness anxiety might lead to changes in patterns of loneliness. There is some association between the two variables.

**Hypothesis 3** postulated that "The use of substance is associated significantly with illness anxiety". Results in table 2 show that substance use and illness anxiety have a moderate positive correlation. The obtained p-value of correlation is 0.5335 which is much greater than the 0.05 level of significance. Therefore, we accept the hypothesis that indicates the correlation between these variables. This means that individuals consuming/using substances of any sort have direct correlation with illness anxiety patterns. They are directly associated. However, the correlation is moderate, but still, it is enough to cause changes and influence each other.

As we have discussed the correlation between these three variables, one should keep in mind that correlation does not mean causation. Just because we were able to find a correlation among variables, it does not mean that they actually cause each other. It just tells us that one variable is associated with the changes in another variable. Only in some cases we find that one variable actually causes the other variable. Like we found in our study. To determine the strength of the relationship between variables, we have implemented regression analysis on our data.

***Table 3 Regression analysis summary for illness anxiety and loneliness predicting substance use***

| | **Coefficients** | **Standard Error** | **t Stat** | **P-value** | **Lower 95%** | **Upper 95%** |
|---|---|---|---|---|---|---|
| Intercept | 8.901707962 | 1.843790736 | 4.827938328 | 2.78108E-06 | 5.265376486 | 12.53803944 |
| WI | 0.379797281 | 0.043043291 | 8.823611495 | 6.28301E-16 | 0.294907129 | 0.464687433 |
| UCLA | -0.042432407 | 0.0383564 | -1.106266675 | 0.269974019 | -0.118079053 | 0.033214239 |

Table 3 indicates that illness anxiety is a very strong and significant predictor of substance use by individuals from both genders. Whereas, loneliness is not a strong predictor of substance use. Though we have found an association among the three variables, it does not guarantee causation and that they are causing changes in each other.

***Table 4 T-test comparison between young Indian males and females on illness anxiety***

| | **WI m** | **WI f** |
|---|---|---|
| Mean | 26.64864865 | 28.42 |
| Variance | 93.6036036 | 93.67714286 |
| Observations | 148 | 50 |
| Hypothesized Mean Difference | 0 | |
| Df | 84 | |

| | |
|---|---|
| t Stat | -1.118959096 |
| P(T<=t) one-tail | 0.133173599 |
| t Critical one-tail | 1.66319668 |
| P(T<=t) two-tail | 0.266347198 |
| t Critical two-tail | 1.988609629 |

***Table 5 t-test comparison between young Indian males and females on substance use***

| | *BAM m* | *BAM f* |
|---|---|---|
| Mean | 16.96621622 | 18.32 |
| Variance | 43.58388491 | 46.67102041 |
| Observations | 148 | 50 |
| Hypothesized Mean Differe | 0 | |
| df | 82 | |
| t Stat | -1.221706055 | |
| P(T<=t) one-tail | 0.112659713 | |
| t Critical one-tail | 1.663649185 | |
| P(T<=t) two-tail | 0.225319427 | |
| t Critical two-tail | 1.989318521 | |

***Table 6 T-test comparison between young Indian males and females on loneliness***

| | *UCLA m* | *UCLA f* |
|---|---|---|
| Mean | 44.77027027 | 43.36 |
| Variance | 112.3006067 | 136.1942857 |
| Observations | 148 | 50 |
| Hypothesized Mean Differe | 0 | |
| df | 78 | |
| t Stat | 0.755693982 | |
| P(T<=t) one-tail | 0.226054403 | |
| t Critical one-tail | 1.664624645 | |
| P(T<=t) two-tail | 0.452108807 | |
| t Critical two-tail | 1.990847036 | |

**Hypothesis 4** postulates that "There are significant gender differences in relation to the three variables of interest". The results indicated in Tables 4, 5, and 6 tell that there are no significant gender differences when it comes to illness, anxiety, substance use, and loneliness. The obtained t value for illness anxiety is .266; for substance use it is .225; and for loneliness it is .452 respectively. These values are greater than the set p-value of 0.05. Thus, we accept the null hypothesis and reject our postulated one, which states that there is a significant difference among genders with respect to the variables. Therefore, we have

enough evidence that both the genders (males and females) experience the same patterns of illness anxiety, substance use and loneliness in today's time. When we talk about equality among genders, at least we can see some here in this study.

## SUMMARY AND CONCLUSION

The major purpose of the study was to evaluate how the genders' (male and female) attitudes towards illness have changed, along with their indulgence in substance consumption, and how the situations have made them develop feelings of loneliness and withdrawal from their friends and relationships. Other aims were to evaluate the individual relationships between the three variables. Also, an effort was made to test whether there is a significant gender difference as well. 200 participants for the study were randomly selected, they were debriefed regarding the research and their doubts were cleared beforehand. Also, their consent was taken and confidentiality was assured. The data was collected through google forms and spread via online social media platforms. The tools used were Brief Addiction Monitor (BAM), Whiteley-Index (WI), and UCLA Loneliness Scale. Single and multiple linear correlation, regression, and t-test were used to find the cause-effect relationship through data analysis. The results show that illness anxiety and substance use have p-value .5335 indicating moderate positive correlation; substance use and loneliness has p-value .0729 indicating weak positive correlation; and loneliness and illness anxiety has p-value .2577 indicating weak positive correlation. However, one should note that correlation does not guarantee causation. Regression analysis results show that illness anxiety is a very strong predictor of substance use behavior whereas loneliness is not a good predictor of substance use. The t-test comparison results between males and females indicate that there are no significant gender differences with respect to illness, anxiety, substance use, and loneliness, with p-values .266, .225, and .452 respectively.

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