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## Experienced Stress among Adults, Adolescents, and LGBQ Students in Time of Covid-19 Pandemic

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### ABSTRACT

The covid-19 pandemic has affected the lives of every Filipino adolescent, adults, and LGBQ students. Knowledge of these affecting factors is limited. The study's primary purpose was to determine the level of stress among adolescents and adult students. Nine-hundred thirty (930) students participated in the study (First-year College and Junior High School students, n=724; Graduate Students, n=206). Result showed that among adult students which were grouped into gender: 30.67% male (n=23), 65.33% female (n=49), and 4% LGBQ (n=3) experienced a high level of Covid-19 stress-related symptoms, while 27.03% male (n=10), 67.57% female (n=25), and 5.41% LGBQ (n=2) scored lower level of stress. Likewise, among adolescent students, 32.32% male (n=83), 66.79% female (n=177), and 1.89% LGBQ (n=5) experienced high level of stress while 43.65% male (n=50), 52.64% (n=60), and 3.51% LGBQ (n=4) reported to have low stress level. Moreover, male adolescents and female adults were found to have higher Covid-19 stress-related symptoms. Consequently, k-means scores showed that 36.60% of adolescent students scored high (mean scores of 2.78-4.00) while 15.7% scored low (mean scores of .00-1.69). Meanwhile, among adult students, 36.4% scored a higher level of stress (mean scores of 2.81-4), and 45.6% reported having a lower level of stress (mean scores of .03-1.81). Also, adolescent students are prone to experience higher stress levels than adult students living in the Philippine region. Adult students may have established better coping mechanisms compared to adolescents. The researchers discussed the importance of designing and providing an evidence-based psychological intervention to address the participants' needs. A qualitative study may also be conducted to unveil the phenomenon of stress-related experiences among adults, adolescents, and LGBQ students to better explain the current study results.

### INTRODUCTION

The Covid-19 pandemic caught everyone unprepared. It resulted in devastating effect in almost all aspects of everyone's lives most especially in mental health. As cases continue to rise and death toll remains, high level fears and anxiety is what encapsulates everyone's feelings and emotions. It was reported in China that there are more than 25% of the general population experienced moderate to severe levels of anxiety due to COVID-19 (Qiu *et al.*, 2020; Wang *et al.*, 2020). Taylor (2019) provides that the presence of anxiety or the lack thereof is an important factor of behavior during epidemics and pandemics. Taylor *et al.* (2020) observed that in time of Covid-19 pandemic people would mostly exhibit five symptoms of stress or anxiety related responses such as danger and contamination fears, fears about economic consequences, xenophobia, compulsive checking and reassurance seeking, and traumatic stress symptoms. It was in January 2020 that the World Health Organization (WHO) declared an outbreak of the novel coronavirus (COVID-19), which started in Wuhan-China, as a public

health emergency (World Health Organization, 2020). The same was elevated into a pandemic on March 2020 (World Health Organization, 2020). When the COVID-19 pandemic started, the psychological impact becomes apparent. Its emergence and spread created psychological havoc for people leading to increased levels of anxiety (Roy *et al.*, 2020). COVID-19 crisis has also made an impact on the context of Philippine Education. Classes were postponed due to lockdown. The majority of Colleges and Universities also faced current challenges with virtual learning (Talidad & Toquero, 2020). In particular, Higher Education Institutions (HEIs) are prompted to establish management approaches regarding pandemics to encourage positive health behavior among students (Akan *et al.*, 2010). Consequently, college students all over the globe were affected by the sudden changes of educational system including the Philippines (Maqsood *et al.*, 2021; Klapkiv & Dluhopolska, 2020; Zacher & Rudolph, 2020; Onyema *et al.*, 2020; Cuaton, 2020). Shifting from face-to-face to online classes, online assessment and evaluation, and tremendous high level

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of stress are among the effects of Covid-19 outbreak (Sahu, 2020). In addition, several studies highlighted students' experiences during the pandemic. Accordingly, a study has shown effects of pandemic to general population such as fear, sadness & depression, other negative psychological effects, and lifestyle factors while highlighting the role of unpredictability, seriousness of the disease and uncertainty as factors affecting fear and anxiety (Sanderson *et al.*, 2020).

College students in Spain negatively affected their psychological well-being because of the lockdown where symptoms of common mental health disorders were reported by 20-35% of respondents while around half of them has shown moderate to severe impact of the pandemic (Odrizola-González *et al.*, 2020). Cao *et al.* (2020) stated that in China, 24.9% of college students have experienced anxiety while describing that living in urban areas; living with parents and having a steady family income were found as protective factors among college students. It further describes that the effects on economic and on daily life, as well as delays in academic activities, were positively associated with anxiety symptoms and that social support was negatively correlated with their anxiety. In addition, a study in Switzerland showed that worrying, isolation in social networks, lack of interaction, emotional support, and physical isolation as the main issues concerning mental health, adding that female students appeared to experience mental health problems when they are socially isolated (Elmer *et al.*, 2020). Further, College students with pre-existing mental health conditions show improvement or remain the same during the pandemic while those without pre-existing mental health concerns show significant decline in their mental health (Hamza *et al.*, 2020). In the Philippines, a thorough description on the experiences of students' stress, depression, anxiety and its effect was conducted where it reported that students experience moderate-to-severe psychological impact due to the pandemic (Tee *et al.*, 2020a). Further, evidence has shown that apart from personal concerns brought by the pandemic (finances, career, and part-time work) students from developing countries including the Philippines lagged behind in online classes citing the importance of crafting an appropriate support to address these concerns (Aristovnik *et al.*, 2020).

Likewise, in one of the provinces in China it was found that COVID-19 pandemic has a positive impact on mental health and quality of life among the local Chinese residents and it was found out that adult participants experienced increased support from friends and family members, increased shared feeling and caring with family members and others. In addition, the participants experienced mild stress, horrified and becomes apprehensive due to the pandemic (Zhang & Ma, 2020). Tee *et al.* (2020b), stated that in the Philippines, mental health was adversely affected by student status, low confidence in doctors, dissatisfaction with health information, long daily duration spent on health information, worries about family members contracting COVID-19, ostracization,

and unnecessary worries about COVID-19. Further, they provide evidence that physical symptoms and poor self-rated health were associated with adverse mental health in China and the Philippines (Tee *et al.*, 2020). Meanwhile, in Chile, it was found that LGBT (to include queer, asexual, pansexual, demisexual) were emotionally affected due to the pandemic which is higher than male and female. Quarantine measures have significantly affected LGBT's (Barrientos *et al.*, 2021) mental health while Konnoth (2020) emphasizes the importance of providing support among LGBT's. Consequently, what appears worthy to discover is a description on the level of stress among Filipino adolescents, adult, and LGBTQ living in a Province as this population has different experience from people living in Cities (Sharifi & Khavarian-Garmsir, 2020; Zhang & Ma, 2020).

Evidence has shown that they are highly affected by the pandemic. Moreover, this will attempt to describe the stress or anxiety related symptoms experienced by them as defined by Taylor *et al.* (2020). Our study will include LGBTQ's experienced stress in this time of pandemic. It was provided that gender minorities has a unique set of experience in this time of pandemic (Reid & Ritholtz, 2020; Candrian *et al.*, 2021; Phillips *et al.*, 2020). The study looked into the level of stress among Filipino adolescents, adults, and LGBTQ students living in a province. Specifically, this will look into what factors have contributed to their experienced stress.

## METHODS

To reach the objectives of this paper, a survey design was made to provide a quantitative or numeric description on the experienced level of stress of the target participants (Creswell, 2014). Ethical standard was strictly followed in the conduct of research. A total of nine-hundred thirty (N=930) students enrolled in a State University living in the Philippine region participated.

Among the participants, there are seven-hundred twenty-four (n=724) adolescents and Two hundred six (n=206) adults. Consequently, a completion rate of 27% was attained. The participants were categorized as adolescents and adults based on their age range (UNICEF, 2019). Constrained by the current restrictions due to existing pandemic, the researchers made a survey questionnaire through a Google Form for online dissemination and data collection. Students were provided consent form prior to answering the questions. There was no known risk in answering the survey. To analyze the data, the researchers utilized a free trial version of SPSS (IBM® SPSS®, New York, USA) K-means cluster analysis was employed to classify the participants' level of stress as high, average, and low level (Kim *et al.*, 2021). Computing for the k-means will help the researchers identify the homogenous groups based on their level of stress.

The instrument used to identify the factors affecting the participants' level of stress was the COVID-19 Stress Scale questionnaire by Taylor *et al.* (2020). It is a thirty-six (36) items questionnaire with five (5) factor solution that



corresponds to five scales assessing COVID-19 stress and anxiety symptoms. The scales has a good reliability and validity indices.

## RESULTS

The demographic information of the participants is shown in Table 1 below.

**Table 1:** Demographic Information of the participants (N:930)

| Variables                      |                    | Adolescents (n=724) |       | Adults (n=206) |       |
|--------------------------------|--------------------|---------------------|-------|----------------|-------|
|                                |                    | n                   | %     | n              | %     |
| Gender                         | Female             | 430                 | 59.39 | 135            | 65.53 |
|                                | Male               | 274                 | 37.85 | 63             | 30.58 |
|                                | LGBQ               | 20                  | 2.76  | 8              | 3.88  |
| Age                            | 53 to 60 years old | 0                   | 0     | 3              | 1.46  |
|                                | 45 to 52 years old | 0                   | 0     | 8              | 3.88  |
|                                | 37 to 44 years old | 0                   | 0     | 12             | 5.83  |
|                                | 29 to 36 years old | 0                   | 0     | 42             | 20.39 |
|                                | 20 to 28 years old | 0                   | 0     | 141            | 68.45 |
|                                | 12 to 19 years old | 724                 | 100   | 0              | 0.00  |
| Highest Educational Attainment | Junior High School | 70                  | 9.67  | 0              | 0.00  |
|                                | Undergraduate      | 654                 | 90.33 | 94             | 45.63 |
|                                | Graduate           | 0                   | 0.00  | 112            | 54.37 |

A categorical percentage of the level of stress among adolescents and adults is presented in Table 2

**Table 2:** Percentage of adolescents and adults' level of stress

| Age                  | Level of stress |       |      |               |       |      |           |      |      |
|----------------------|-----------------|-------|------|---------------|-------|------|-----------|------|------|
|                      | High Level      |       |      | Average Level |       |      | Low Level |      |      |
|                      | n               | %     | Mean | n             | %     | Mean | n         | %    | Mean |
| Adolescents* (n=724) | 265             | 36.60 | 3.31 | 345           | 47.65 | 2.23 | 114       | 15.7 | 1.20 |
| Adults** (n=206)     | 70              | 36.40 | 3.32 | 94            | 18.00 | 2.30 | 37        | 45.6 | 1.34 |

k-mean scores: \*High (2.78-4.00); Average (1.72-2.75); Low (.001-1.69), \*\*High (2.81-4.00); Average (1.83-2.78); Low (.03-1.81)

In addition, the percentage of the level of stress of the participants according to gender is shown in Table 3.

**Table 3:** Percentage of participants' level of stress according to gender

| Gender       | Level of Stress |       |      |               |       |      |           |       |      |
|--------------|-----------------|-------|------|---------------|-------|------|-----------|-------|------|
|              | High Level      |       |      | Average Level |       |      | Low Level |       |      |
|              | n               | %     | Mean | n             | %     | Mean | n         | %     | Mean |
| Adolescents* |                 |       |      |               |       |      |           |       |      |
| Male         | 83              | 32.32 | 3.32 | 141           | 40.87 | 2.22 | 50        | 43.65 | 1.10 |
| Female       | 177             | 66.79 | 3.31 | 193           | 55.94 | 2.24 | 60        | 52.64 | 1.28 |
| LGBQ         | 5               | 1.89  | 3.08 | 11            | 3.19  | 2.26 | 4         | 3.510 | 1.04 |
| Adults**     |                 |       |      |               |       |      |           |       |      |
| Male         | 23              | 30.67 | 3.22 | 30            | 31.91 | 2.29 | 10        | 27.03 | 1.46 |
| Female       | 49              | 65.33 | 3.37 | 61            | 64.89 | 2.30 | 25        | 67.57 | 1.27 |
| LGBQ         | 3               | 4.00  | 3.20 | 3             | 3.19  | 2.23 | 2         | 5.41  | 1.62 |

k-mean scores: \*High (2.78-4.00); Average (1.72-2.75); Low (.001-1.69) \*\*High (2.81-4.00); Average (1.83-2.78); Low (.03-1.81)

Lastly, the total mean scores per categories of the COVID-19 Stress scale were identified and are shown in Table 4.

**Table 4:** Level of stress per category of Covid-19 stress scale

|                                        | Adult** (n=724) | Adolescent* (n=206) |
|----------------------------------------|-----------------|---------------------|
| COVID Danger and Contamination fear    | 2.82            | 2.71                |
| COVID Socio-economic Consequences fear | 2.47            | 2.60                |
| COVID Xenophobia                       | 2.54            | 2.53                |
| COVID Traumatic Stress Symptoms        | 1.84            | 1.70                |

|                                                   |                |                   |               |                    |                   |                |
|---------------------------------------------------|----------------|-------------------|---------------|--------------------|-------------------|----------------|
| COVID Compulsive Checking and Reassurance Seeking | 2.57           |                   |               | 2.44               |                   |                |
|                                                   | <b>Adult**</b> |                   |               | <b>Adolescent*</b> |                   |                |
|                                                   | Male<br>(n=63) | Female<br>(n=135) | LGBQ<br>(n=8) | Male<br>(n=274)    | Female<br>(n=430) | LGBQ<br>(n=20) |
| COVID Danger and Contamination fear               | 2.79           | 2.84              | 2.76          | 2.64               | 2.82              | Limit 2.53     |
| COVID Socio-economic Consequences fear            | 2.34           | 2.53              | 2.60          | 2.39               | 2.74              | 2.53           |
| COVID Xenophobia                                  | 2.52           | 2.57              | 2.35          | 2.47               | 2.59              | 2.14           |
| COVID Traumatic Stress Symptoms                   | 1.90           | 1.83              | 1.69          | 1.68               | 1.72              | 1.35           |
| COVID Compulsive Checking and Reassurance Seeking | 2.64           | 2.55              | 2.48          | 2.37               | 2.49              | 2.26           |

k-mean scores: \*High (2.78-4.00); Average (1.72-2.75); Low (.001-1.69), \*\*High (2.81-4.00); Average (1.83-2.78); Low (.03-1.81)

## DISCUSSION

The purpose of this paper was to determine the level of stress among adolescents, adults, and LGBQ students residing in one of the provinces in the Philippines and will identify specific factors that have contributed to their stress. To describe the demographic profile of the participants, it shows that most of them were females. As to age, adolescent participants belonged to 12yo-19yo while adult participants belonged to 20yo-60yo where majority of them were ages 20yo-28yo (68.45%).

There were 45.63% undergraduate students categorized as adults. Result showed that among adult participants there were 30.67% males (n=23), 65.33% females (n=49), and 4% LGBQs (n=3) experienced high level of Covid-19 stress-related symptoms. On the other hand, there are 27.03% males (n=10), 67.57% females (n=25), and 5.41% LGBQs (n=2) scored low in their level of stress. Among adolescent students, 31.32% males (n=83), 66.79% females (n=177), and 1.89% LGBQs (n=5) experienced high level of stress while there are 43.86% males (n=50), 52.63% females (n=60), and 3.51% LGBQs (n=4) reported to have low Covid-19 stress related symptom.

The data provides that female adolescents and adults were found to have higher Covid-19 stress-related symptoms. Similarly, in Saudi Arabia female students were reported to have significantly higher levels of stress, which has been attributed to a variety of factors, including hormonal changes, emotional expressiveness, and worries about their social situation (AlAteeq *et al.*, 2020). Moreover, the scores showed that there were 36.60% of adolescent students scored high in their level of stress (mean scores of 2.78-4.00) while 15.7% scored low (mean scores of .00-1.69). Meanwhile, among adult students, 36.4% scored higher level of stress (mean scores of 2.81-4), and 45.6% reported to have lower level of stress (mean scores of .03-1.81). Consequently, in terms of age, it was adolescent students who were found to have higher Covid-19 stress-related symptoms compared to adult participants. The study of Ellis *et al.* (2020) supports these findings where the developmental conditions among adolescents aggravates in the experienced stress such that the need for autonomy and connectedness were both hindered during the pandemic as they are constrained by physical distance due to lockdowns.

Majority of the participants, both as adolescents and adults, scored between average to low level of stress stating that there were at least 36.60% of adolescents and 36.40% of adults reported to have high level of COVID-19 related stress. It may indicate that majority of the participant have established coping mechanism while battling with the experienced stress brought by the pandemic. As to gender, the data revealed that there are 66.7% female adolescents who had an elevated level of stress. In comparison, there are 65.33% of female adults scoring high level of stress.

It was found that the thought of acquiring COVID-19 is the main reason that contributes to female adolescent and adult participants' stress. The result of this study is in consonance with the study conducted by Nakhoshtin-Ansari and colleagues (2020) which provides that female Iranian medical students have higher levels of anxiety than the male counterpart. Further, Hou *et al.* (2020) also found out that among social media users in China, females are experiencing more severe anxiety symptoms than males.

The study utilized survey method, thus results from this study cannot be generalized to the entire population of adolescents, adults, and LGBQ. One specific region may not necessarily reflect the whole experience of adolescents, adults, and LGBQ in other areas. On a particular note, LGBQ's level of stress appears to be low compared to adults and adolescents which were different from the results of other studies conducted by Reid & Ritholtz (2020), Candrian *et al.* (2021) and Phillips *et al.* (2020). This is so because of the limited LGBQ participants. Further research may be conducted utilizing a different quantitative design with higher number of participants who belonged to sexual minority groups. In addition, the stress described herein was grounded on Taylor *et al.* (2020) literature. Other sources or factors of stress may also be considered both in content and context to provide us another lens of looking at stress. It is also important to come up with an evidence-base counseling program for adolescents, adults, and LGBQ students and integrate counseling intervention programs that will focus on cognitive reappraisal. Cognitive behavioral therapy may be utilized to address the needs of those participants who have high level of stress. More so, the skills and techniques of Dialectical Behavior Therapy is one of the promising intervention(s) that can be done in this time of

pandemic (Smirni et. al, 2020; (O'Hayer, 2021). Further, a qualitative study may be employed to expound the results of the study. This may elucidate particular concern such as a thorough description of the experienced stress especially those who belonged to LGBTQ+ group.

## CONCLUSION

The study shows a description on the experienced difficulties among adolescents, adults, and LGBQ Filipino youth living in a province, highlighting the importance of identifying sources of stress to create an evidence-based program addressing their concerns. Consequently, the results may not be generalizable to the whole experience of Filipino adolescent and adult population due to the method used. Further, the study cannot describe LGBQ's stress because of a very small number of participants. However, the results still provides a clear picture on the experienced stress among adults, adolescents, and LGBQ's. In terms of gender, result shows that female adolescents and adults were found to have higher Covid-19 stress-related symptoms. The thought of acquiring COVID-19 is the main reason that contributes to their stress. Likewise, it was also found that adolescent students have higher Covid-19 stress-related symptoms compared to adult participants. The current study is a good basis for mental health practitioners in the Philippines in creating an evidenced-based program(s) and activities that may help alleviate the experienced stress of adolescents, adults, and LGBQ's in time of pandemic. Future researchers may also utilize a narrative inquiry or phenomenological study that may focus on describing their journey and how they cope with it. Insights may also be solicited from them.

## Statements and Declarations

The authors did not receive support from any organization for conducting this study. Further, the authors declared to have no known conflict of interest to any group or organization. Ethical rules are strictly followed in the conduct of the research.

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