

# Investigating the Presence of the Symptoms of Depression among University-age Filipinos

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**Abstract:** Depression is a mental illness that negatively affects how a person feels, thinks and acts. In this work, we used an online survey to ask 501 Filipino university-age students on symptoms commonly associated with depression: sadness or isolation, headaches or migraine, anxiety over everyday activities, moodiness or irritability or agitation, chronic fatigue, and low self-esteem or motivation. We learned that all respondents experience at least one symptom weekly. Most respondents (52.7%) experience all six symptoms weekly, with 1 to 3 days a week being the most common frequency. An overwhelming majority attributed such symptoms to academics (92.6%), followed by family (69.5%) and friends (49.5%). Lastly, most (41.9% - 59.7%) believe they have around 1-3 friends with the same symptoms that they experience. The researchers are calling for an increased awareness of mental health issues and good practices, especially within homes and schools, to address the prevalence of depression in university-age Filipinos. The prevalence of Big Data and the Internet of Things within this particular demographic greatly enhances the ability of mental health professionals and researchers to detect and hopefully address the symptoms of depression.

## 1 INTRODUCTION

Depression is a common and serious medical illness that negatively affects how one feels, thinks and acts (Parekh, 2017). Depression is projected to be the most common cause of disability worldwide, and is rapidly becoming a leading cause of disability and premature death in developing regions in the world (Murray and Lopez, 1997). Psychiatric conditions such as depression account for little more than one per cent of deaths worldwide but account for almost 11 per cent of disease burden worldwide, and is projected to be the second highest cause of disease burden worldwide by 2020.

Many studies suggest that young people are more prone to depression (Reavley and Jorm, 2010; Ibrahim, et al., 2012), as seen in the increasing prevalence of depression among university students in various countries (Eller et al., 2006; Steptoe, et al., 2007; Mahmoud, et al., 2012; Sarokhani et al., 2013). They are in a critical transitory period wherein they experience some of the most stressful times in one's life, in terms of psychological and social aspects

(Steptoe, et al., 2007). Trying to fit in to a new community, maintaining good grades, fearing failures, lacking money, experiencing heartbreak and facing disappointment from their family can cause young people to experience the symptoms of depression (Sarokhani et al., 2013). Many university students are afraid to talk about their mental problems and to seek help (Sarokhani et al., 2013), leading to deteriorating academic performance, health-compromising behaviors, and in extreme cases, suicide (Steptoe et al., 2007).

In the Philippines, mental illness such as depression is the third most common form of disability in the country, with Filipinos especially the younger generations comprising the largest number of depressed people in Southeast Asia (De Guzman, 2018). The statistics may even be larger, as there is a social stigma associated with mental health among Filipinos that ignores the problem and likely contributes to its spread. However, some progress is being made, such as the recent passing of the 2018 Mental Health Law which integrates mental health in the national healthcare system (Elemia, 2018). In line with this, our study aims to increase awareness about

the presence and prevalence of depression among university-age Filipinos, and how institutions such as the family and the academe can contribute to their improved mental wellness.

The researchers have no professional training to diagnose depression; however, we constructed a survey that depends on a respondent’s own report of his or her symptoms. Such self-assessment measures for depression have already been used to measure the presence and severity of depression, even in a quantitative manner (Hamilton, 1960; Beck et al., 1961; Zung, 1965; Steptoe, et al., 2007). We use an online survey to disseminate the study widely within a short time, and increase the convenience and accuracy of gathering data.

## 2 METHODOLOGY

From the many symptoms associated with depression in the literature, we limited our study to the six shown in Table 1. We made our choices based on what we deemed appropriate and common to our target demographic, Filipinos in their late teens to early twenties. Since symptoms may be deemed subjective and may vary with each person, we focused on objective, empirically observable characteristics. Likewise, we avoided the term “depression” throughout the survey to avoid leading or misleading the respondents.

Table 1: The symptoms of depression used in our survey, as labeled in succeeding figures.

Label	Symptom
A	Overwhelming sadness or isolation
B	Headaches or migraines
C	Anxiety over everyday activities
D	Moodiness, irritability and agitation
E	Chronic fatigue
F	Low self-esteem or motivation

Table 2 shows the list of questions in the survey and the choices available to the respondents. The respondents were asked to provide their birth year and school or university. They were then asked about the weekly frequency that they encounter each of six features commonly associated with depression. They were also asked to estimate the number of friends that have the same symptoms as theirs. Lastly, they were asked about the possible reasons that they encounter the said symptoms.

Table 2: The institutions with the largest number of respondents who participated in the survey. Universities with more than one campus or branch were grouped together.

Question	Choices
1. I am willing to take part in this survey.	Yes / No
2. Birth Year	(Manual Input)
3. School/University	(Manual Input)
4. In a week, how often do you experience the following?	
A. Overwhelming sadness or isolation	Never / 1-3 Days / 4-6 Days / Always
B. Headaches or migraine	Never / 1-3 Days / 4-6 Days / Always
C. Anxiety over everyday activities	Never / 1-3 Days / 4-6 Days / Always
D. Moodiness, irritability and agitation	Never / 1-3 Days / 4-6 Days / Always
E. Chronic fatigue	Never / 1-3 Days / 4-6 Days / Always
F. Low self-esteem or motivation	Never / 1-3 Days / 4-6 Days / Always
5. How many friends do you think experience the same symptoms with you?	
A. Overwhelming sadness or isolation	0 / 1-3 / 4-6 / 7 or more
B. Headaches or migraine	0 / 1-3 / 4-6 / 7 or more
C. Anxiety over everyday activities	0 / 1-3 / 4-6 / 7 or more
D. Moodiness, irritability and agitation	0 / 1-3 / 4-6 / 7 or more
E. Chronic fatigue	0 / 1-3 / 4-6 / 7 or more
F. Low self-esteem or motivation	0 / 1-3 / 4-6 / 7 or more
6. In your opinion, what are the reasons for the symptoms you experience? (You may choose more than one.)	Academics / Family / Friends / Love Life / Mental Illness / Money

From the given questions and choices, the researchers constructed a survey using Google Forms (Figure 1). We used social media such as Facebook and Twitter to encourage schoolmates and friends to participate as well as share the survey with their own social connections.

The informed consent of each participant was obtained by providing information about the study then directly asking the respondent if he or she was willing to proceed. The respondents may close and reopen the survey at any time within the duration of the experiment, and they may change their answers. However, only one set of answers may be recorded for each email address used.

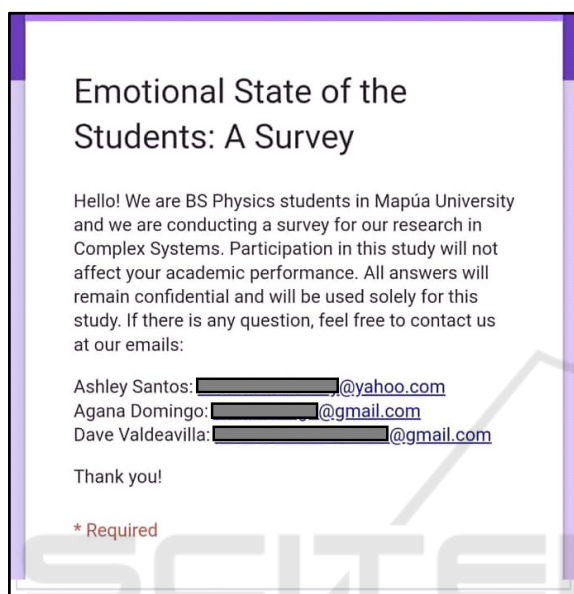


Figure 1: The first part of the survey as seen in Google Forms. The email addresses of the researchers have been hidden for privacy purposes.

After a few days have passed, the researchers closed the survey and extracted the data from Google. We performed some filtering measures, namely checking if each respondent has given their consent and answered all the questions, and if their age is within 15 to 23 years old.

### 3 RESULTS AND DISCUSSION

Out of 588 original respondents, we only considered the 501 responses after filtering the responses.

The largest number of respondents came from Mapua University (Table 3). This is not surprising as the researchers are affiliated with the said institution. However, Mapuans only accounted for 12.97% of the respondents, and majority of the participants came from other institutions and even other countries. We chose to include respondents who did not indicate their academic institution, as each answer is taken in good faith, and our more important filter is the age

bracket rather than the university or school that respondents attended.

Table 3: The institutions with the largest number of respondents who participated in the survey. Universities with more than one campus or branch were grouped together.

Educational Institution	No. of Respondents
Mapua University	65
(Undisclosed)	49
University of Sto. Tomas	45
Polytechnic University of the Philippines	25
De La Salle University	19
Far Eastern University	18
Centro Escolar University	13
University of the Philippines	11
Bignay National High School	10
Ateneo	8

Figure 2 lists the number of respondents with respect to the number of depressive symptoms they experience weekly. The graph is not a cumulative frequency; a significant majority (52.7%) experienced all the listed symptoms at least once a week; and all (100.0%) experienced at least one symptom weekly. Although self-diagnosis is not sufficient for a person to be diagnosed as depressed, this is already a good first measure of the prevalence of depressive symptoms among young Filipinos.

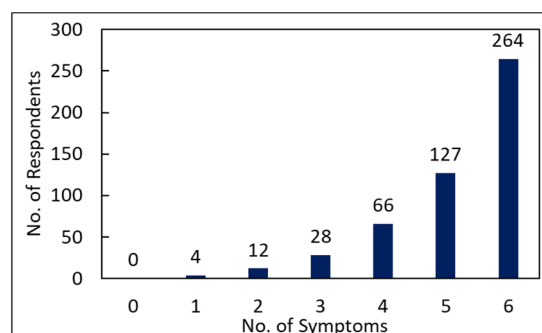


Figure 2: The number of depressive symptoms experienced by each respondent on a weekly basis.

In connection with Figure 2, Figure 3 shows that majority of the respondents experience each depressive symptom from one to three days every week. Of the six symptoms, the largest number of respondents “always” experience “Low Self-Esteem or Motivation” and “never” experience “Chronic Fatigue”.

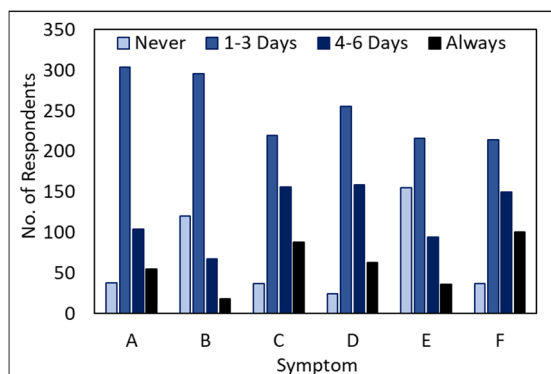


Figure 3: The frequency in a week that each respondent experiences each depressive symptom.

Figure 4 shows “Academics” as the overwhelmingly top reason for the depressive symptoms encountered by the students, answered by 92.6 % of the respondents. “Family” and Friends” were chosen by 69.5% and 49.5% of respondents, respectively, while “Money” and “Love Life” have around equal votes (41.1% and 40.7% respectively). Interestingly, only one respondent clicked on “Mental Illness” as a cause for his or her depressive symptoms. These results show the massive effect that academic institutions as well as familial and social circles have on the mental well-being of young Filipinos.

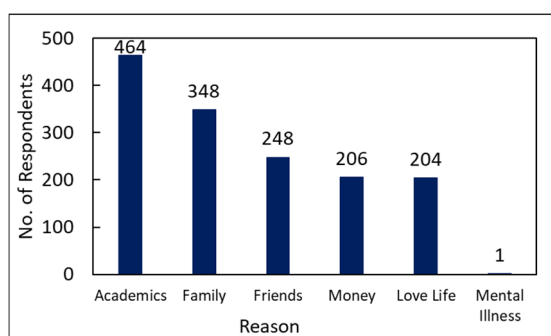


Figure 4: The reasons for the depressive symptoms according to the respondents who encounter them.

Lastly, for all six depressive symptoms, most respondents (41.9% - 59.7%) felt they have 1-3 friends with the same symptom that they themselves have (Figure 5).

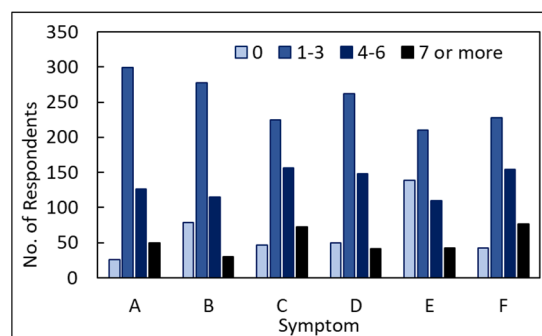


Figure 5: The number of friends with the same depressive symptom as the respondent.

At this point, it is not yet clear whether these friends have contributed to each other’s mental state, as a psychological infection of sorts. However, it is still worth noting that young Filipinos are experiencing the same symptoms and are aware of each other’s condition.

#### 4 CONCLUSIONS

This initial study forms an excellent basis for further research. Many recommendations can already be made in terms of spreading awareness and taking action for improved mental well-being of university-age Filipinos. In particular, we call on teachers and administrators to be more mindful of the mental state of their students and considerate in their treatment of the latter. We believe in the pursuit of academic excellence, but balancing this with a more holistic approach which considers also the emotional, psychological and even spiritual condition of the students in their care. We also call on parents and other relatives to continue upholding their role as the primary guardians of these young adults, to support and nurture them in this especially distressing life season. Lastly, we enjoin the young Filipinos themselves, as they affect each other as friends, peers and love interests. May their awareness of mental health increase, as well as their consideration for each other’s well-being. While we believe that each person is ultimately responsible for their life, may the results of this study remind us how our actions affect others, and lead us to strive for the betterment of ourselves and others.

Moreover, there is much we can do for further study on this topic. Due to the wide range of the respondents’ backgrounds, we can investigate how the results would change per birth year and per academic institution. The correlation between depressive symptoms and demographic and

behavioral traits such as age, gender, family income, and sense of control, have already been studied for other countries (Steptoe et al., 2007). Hence we can extend our study to include such factors and investigate their effects on Filipino students. It would also be interesting to see if a respondent's friends see the same symptoms in their friend, as those identified by the respondent himself. Lastly, for more complete data, we can also ask the respondents for other symptoms and other possible causes for their depressive symptoms.

Big Data is a rich source for mental health professionals and social researchers, among others, regarding the detection of depressive symptoms, particularly among the young adult demographic. The Internet of Things also increases our access to helpful diagnoses and good practices that will hopefully address and resolve their depression.

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