



Psychological Vulnerabilities and Mental Health Measures of the iGeneration Students

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Abstract

This study looked into the psychological vulnerabilities such as depression, anxiety, stress, and self-harming behavior of iGeneration students. The scales used were the DASS-21 scale and the Self-harm Inventory among the iGeneration in a Philippine local university. The baseline data were then used to develop curriculum interventions for selected general education subjects to address the mental health needs of the respondents. On the other hand, life skills and mental health protective behaviors of the iGeneration were analyzed as variables that need to be strengthened in local mental health programs. Notable results show that the mental health needs of the iGeneration are very apparent, especially in terms of their anxiety level where the majority of the respondents were under severe to extremely severe levels. An alarming result is that almost half of the respondents admitted to engaging in self-harming behaviors. Also, around 7% of the 1548 respondents admitted having attempted suicide. On the other hand, only 10% of the surveyed respondents were seeking professional mental health care. For the respondents' main source of social support, family and friends are the topmost support followed by school and relatives. Only a few had identified religious groups and community groups serve as a source of social support. Also, life skills in communication and interpersonal relations, creative and critical thinking, and decision-making are the top three priority sets of life-skills identified. With such a scenario, it is crucial to enhance and improve collaborative mental health care initiatives for students.

Introduction

Given the escalating global incidence of adverse mental health conditions among adolescents and young adults, it is vital to prioritize the investigation of regional mental health landscapes and the formulation of effective psychosocial interventions. The increasing prevalence of mental health conditions

among students in local communities has prompted this research to establish baseline data regarding the mental well-being of the iGeneration.

The demographic cohort that succeeded the Millennials, specifically those born between the mid-1990s and the early 2000s (aged 5 to 24), was designated by Rosen (2011) as iGeneration (also known as Post-Millennials, Generation Z,

or Post-millennials). The letter "i" symbolizes the period in which this was produced, the Internet era, which is also associated with largely "individualized" technologies such as smartphones and social media (Garcia, 2018). Paradoxically, the proliferation of social media and technological advancements has given rise to pervasive concerns regarding connectivity and estrangement, particularly in the present era when communication technologies serve as a dual-edged sword for young people (Abdellatif, 2022). Anxiety and stress, being the primary contributors to illness and disability among adolescents, are acknowledged as worldwide issues. Consequently, it is critical to assess and analyze depression and stress. The World Health Organization [WHO], (2014) found that sixteen percent of the world's 10–19-year-old population suffers from mental health conditions.

Research conducted in developed nations suggests that the prevalence of mental health disorders is on the rise among the iGeneration. In Europe, hospital self-harm for girls aged 13 to 16 increased by 68% between 2011 and 2014 (Gunnell et al., 2018). Potential factors contributing to this surge include the escalation of family dissolution, the expansion of international terrorism, and the mounting burden of academic obligations resulting in student debt. Likewise, within the United States, the iGeneration exhibits a higher propensity for mental health concerns in comparison to preceding generations. This can be attributed to various factors, including the escalation of personal debt, the political climate, and stressful incidents like mass shootings in educational environments (Bethune, 2019).

In the Philippines, mental health issues such as suicide are prevalent among the youth, as seen in various reports and studies. According to a study by Quintos (2017), one in ten Filipino youth (ages 15 to 27) have contemplated suicide, and one in twenty carry out the act. A lack of strong family integration was found to be correlated with suicide, according to the study. The most common method of suicide among youth is the slashing of the wrist, followed by ingesting substances (e.g., insecticides). YAFS5 (Young Adults Fertility Study) results obtained from the University of the Philippines Population Institute [UPPI], (2021) were utilized in the analysis of secondary data for this study. According to research cited by Punay (2019), eight out of every 100,000 Filipinos commit suicide, whereas the global daily suicide toll

stands at 3000 individuals. Daily suicide referral reports increased at the school level during the 2017-2018 academic year, according to Tomacruz (2018). According to the same report, the increase in mental illnesses among young people can be attributed to the disintegration of interpersonal connections and the lack of protective factors.

Regionally, Batani et al. (2013) found that suicide victims ages 15 to 24 rose to 38 deaths in the time cluster of 2008-2010 in an agricultural community in Northern Luzon, Philippines. The findings of the study indicated that personal, situational, and environmental factors impacted the fatalities of individuals who intentionally ingested toxic chemicals in communities engaged in chemical-based and commercialized agriculture.

Magtubo (2016) cites National Statistics Office data indicating that fourteen percent of all disabilities are classified as mental disabilities, making mental health disorders the third most prevalent cause of morbidity among Filipinos. According to the same report, mental health issues affect an estimated 10 to 15 percent of Filipino children aged 5 to 15. According to statistical estimates of psychological morbidities in 2019, 3.3 million Filipinos were diagnosed with depressive disorders (Philstar); this number increased to 3.6 million Filipinos throughout the pandemic (URC-CS, 2021).

The unfortunate situation is that there aren't enough mental health care professionals to handle the rise in mental health issues. Nationally, the ratio of mental health workers per 100,000 people is only 2:3 mental health workers (Lally et al., 2019). Also in the same study, the researchers found out that only around 3-5% of the Philippines' health budget is allocated for mental health, and 70% of that is used for hospital care. Given that 14% of the Filipino population suffers from mental health issues, the current state of mental health care presents a significant disparity.

With the above trends and the prevalence of psychological vulnerabilities in the Philippines, there is a need to investigate the psychological vulnerabilities of the iGeneration and the possible solution by strengthening protective factors measures for the youth. Interventions from the community and schools, the primary institutions for the iGeneration, are needed to be mobilized to address mental health needs. Advocates for mental health looked into the



experiences of four countries: the United States, Canada, Norway, and Liberia. They found five important themes: working together across sectors to provide care, getting youth and families involved in meaningful ways, developing the workforce and teaching them about mental health, using evidence-based practices, and keeping an eye on things (Weist et al., 2017). In addition, Gomez (2018) suggests that school organizations such as positive sororities could help promote student well-being and help students flourish in college and beyond.

Similarly, the Philippine Mental Health Law, or Republic Act 11036, which was signed by President Duterte on June 21, 2018, encourages schools and workplaces to create programs and services for mental health education. In addition, institutions are mandated to conduct responsive research and development, which may include evidence-based culturally relevant mental health programs, student wellness, and development programs in the context of present-day free higher education (Philippine Congress, 2018).

Specifically, the WHO (1999, 2014) recommends six essential life skills that could be included in school and community mental health interventions. These are (1) decision-making and problem-solving; (2) creative thinking and critical thinking; (3) communication and interpersonal skills; (4) self-awareness and empathy; (5) coping with emotions; and (6) coping with stress. In the same report, the WHO reiterated the importance of integrating life skills into education programs, as countries across the world have successfully used life skills training programs to help prevent or manage behavioral problems (e.g., substance abuse, dropout, etc.), especially among the youth. It also provided individuals with transferable skills that can be used when they enter the workforce.

Given this global and local context, the study investigated the psychological vulnerabilities of the generation, such as depression, anxiety, stress, and self-harm behaviors. On the other hand, mental health care-seeking behavior was investigated, such as professional mental health-seeking behavior and personal coping skills. Life skills practiced among the respondents were also assessed. The results of the study were used to provide the needed information for action points in terms of developing a program embedded in the curriculum that would target the well-being of students.

Specifically, the findings of the study would help interdisciplinary key players such as social science educators, guidance counselors, and psychologists within the university and its client communities. The study findings were transformed into actionable recommendations for youth and mental health providers at BSU and beyond. This was achieved through organized collaborative trainings and webinars involving mental health providers, students of the university, and other organizations. Furthermore, mental health modules were developed and incorporated into Social Sciences subjects like "Understanding the Self." This ensured integration into mental health education.

Conceptual Framework

Figure 1 shows the two main variables in this study: psychological vulnerabilities and psychological protective measures. Psychological vulnerabilities include stress, anxiety, depression, and the frequency of self-harming behaviors. Psychological protective measures include social support, mental health-seeking behavior, and life skills. These two main variables are the baseline data needed to develop a psychological intervention in schools as a basis for increasing iGeneration psychological resilience.

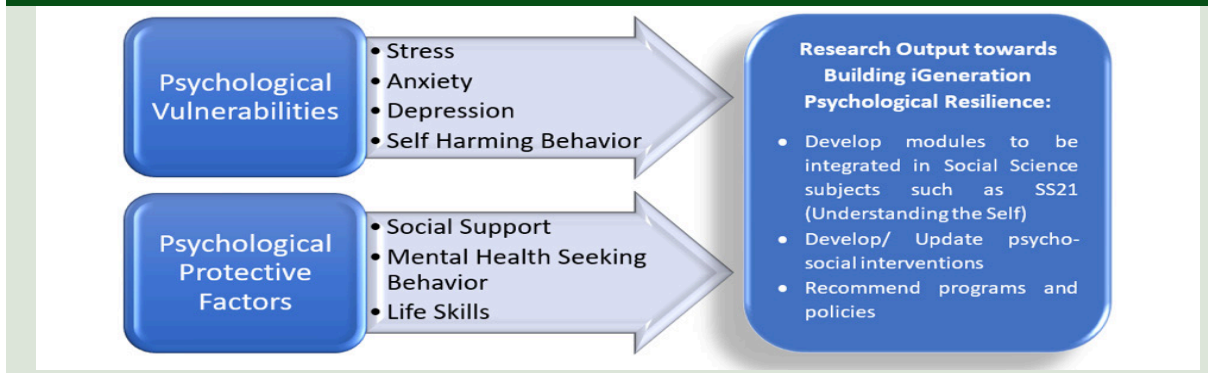
The variable representing students' mental health is classified into four discrete domains: stress, anxiety, depression, self-harming behavior, and anxiety. Each of these domains corresponds to an adverse mental health condition. Social support and life skills comprise the two categories of protective measures for mental health that comprise the variable. A subcategory of social support investigated the students' actual access to professional mental health support. The life skills were anchored in the above-mentioned WHO's six essential life skills.

Analysis of these two major variables is the basis for the research output, which includes modules and lesson guides for the mental development of the iGeneration in courses such as Social Sciences 21 (Understanding the Self), the development of module and workshop guides, and the promotion of recommendations that would strengthen the iGeneration's psychological resilience.



Figure 1

Conceptual Framework from Psychological Vulnerabilities to Resilience Through Tapping on Protective Measures



Methodology

Research Design

Mixed-method convergent research was utilized in the study, combining qualitative and quantitative research designs. A combination of quantitative questions through the Depression, Anxiety, and Stress Scale (DASS 21) and Self-Harming Inventory (SHI) with qualitative open-ended questions were placed in the Google form. Scoring mechanics based on established DASS-21 guidelines were done. Descriptive statistics were used to look into the number of students experiencing such a phenomenon, and inferential statistics, such as the use of a t-test, were applied for different psychological vulnerability factors and life skills about gender differences. The questionnaire was designed and administered to first- and second-year students for the school year 2018–2019. A link to a questionnaire was given to students who were taking social sciences subjects. More than half of the data gathering was administered in the University Library Services, while the rest were answered by students from the comforts of their homes. Data gathering was done from August 2019 to February 2020.

Research Ethics

Informed consent was obtained, which meant that the participant would complete the questionnaire. Basic research ethics on (1) confidentiality, (2) non-maleficence, (3)

beneficence through increased self-awareness of civic engagement involvement, and (4) voluntary participation and withdrawal were observed, and the respondents' contribution to policy and program recommendations was emphasized. Course credit points were also given to participants.

Also, post-data gathering interventions were done and integrated as part of the Social Sciences 21 course. This was in the form of conducting mental health workshops, which included raising awareness and building life skills, and art workshops integrating growth mindset, gratitude workshops, tree planting, and in-class debriefing on mental health and the self. These workshops were designed to celebrate the respondents' internal psychological resources as one source of protective factors. However, the second batch of respondents from January to May 2020 were given virtual workshops on gratitude, mindfulness application, and in-class (pre-pandemic) debriefing on mental health and the self.

Respondents

The study population consisted of students from a local higher education institution in Northern Luzon who were in their first year and second-year levels during the school year 2018–2019. Lower years were the target, as the programs to be developed from the research program would benefit the students before they graduated. The majority of the respondents were female (71%), and a quarter were male (29%). Specifically, the target groups of respondents are those currently enrolled in the university. A total of 1,545 respondents were surveyed out of the 7,000



student population in 2018–2019, comprising 22% of the student population. Stratified random sampling was used, in which the target respondent was grouped based on their college, and representatives per college were randomly selected. All colleges and institutes of the local university were included in the study.

Data Gathering Tools

Established and simplified mental health questionnaires like the DASS 21 (21-item) scale was used alongside the self-harm inventory scale (SHI) (22 items). Additional three open-ended questions on factors causing students' psychological vulnerabilities, coping strategies, and possible suggestions after answering DASS-21 and SHI were added to the questionnaire by the researchers. These open-ended questions were intended to determine the other aspects not captured by the DASS-21 and SHI scales. It is important to note that the DASS-21 is not meant to be a replacement for a full diagnostic tool because it only looks at negative self-assessments from the week before the test was given. It also does not take into consideration suicidal tendencies. Nevertheless, it is an effective tool for research purposes and to come up with baseline data for designing mental health programs in schools.

The survey tools were content validated by other studies (Nieuwenhuijsen, 2003; Silva et al., 2016; Norton, 2021) with the reliability index established before being uploaded and copyrighted. With the validity and reliability indices of the survey tools established beforehand, the researchers used these instruments to investigate overall mental health with a focus on depression, anxiety, stress, and self-harm behaviors. Cronbach's alpha for the DASS-21 scale was 0.74 and subscales Cronbach's alpha are 0.66 (depression), 0.29 (anxiety), and 0.52 (stress) (Sansone, 2010). According to Sansone (2010), the SHI was 60% correct in classifying individuals with borderline personality disorder and 81.5% correct if using the DSM-IV criteria. Another recent study also confirmed that DASS-21 is a suitable instrument for screening depression in people with substance abuse disorders (Beaufort et al., 2017). When looking at how well the questionnaire worked across cultures, a study on 1,387 Vietnamese high school students using the DASS-21 scale showed that it was internally

consistent and convergent. Yet, from this Vietnamese study, the tool's measuring capacities in terms of stress is limited (Le et al., 2017). In addition, Nieuwenhuijsen (2003) found that the DASS-21 had high internal consistency (Cronbach alpha of 0.94, 0.88, and 0.93 for depression, anxiety, and stress), construct validity, and criterion validity.

The DASS-21 was tested locally and translated into the Ilokano language. The results showed that the tool is internally consistent and is linked to depression, anxiety, and bad feelings (Bengwasan et al., 2022). The same study showed the validity and viability of the DASS-21 in a Northern Philippines setting. Cronbach's alpha for internal consistency of the translated instrument is at DASS-Depression Cronbach $\alpha=0.88$, DASS-Anxiety Cronbach $\alpha=0.86$, and DASS-Depression Cronbach $\alpha=0.87$.

Another test used in the study is the Self-Harm Inventory (SHI) developed by Sansone and Sansone (2010) which measures a broad range of prevalence of lifetime 22 self-harm behavior including physical (e.g. cut self), non-physical (e.g. self-defeating thoughts), indirect (e.g. alcohol abuse), direct (e.g. hit self), interpersonal (e.g. promiscuous relationships) and suicidal (e.g. overdose). Self-harm as the researchers note is prevalent in adolescent and clinical samples (in this case, borderline personality disorder). A study on 423 Australian students showed that females have higher self-harm behavior compared to males. The study recommends five or more scores out of the 22 items to screen for psychopathology (Latimer et al., 2009).

Data Analysis

For the quantitative parts of the study, data cleaning was done by removing repeat data and invalid data. Also, descriptive statistics was utilized for variables on stress levels, anxiety levels, depression levels, life skills, and coping skills; z-test for proportion and t-test for means were used to test significant differences involving gender, self-harming behavior, and life skills. Jamovi open software and Microsoft Excel were used for the statistical computations. For the qualitative part, thematic analysis was done for qualitative responses such as social support and were classified into the most common source of their social support.



Results and Discussion

Psychological Vulnerabilities: Depression Levels Among the iGeneration

One of the psychological vulnerabilities measured was the depression levels among the iGeneration. Most of the respondents showed moderate levels of depression, while half of the respondents were at normal or mild levels of depression. It should be noted that a combined 16% of the respondents have severe or extremely severe levels of depression. Such levels can affect how they will perform in school, at home, and in their communities. Qualitative data from the respondents shows that when depression struck them, their performance in school would debilitate them from functioning properly. One participant said,

“When I feel so low, my energy seems to be depleted, and it takes energy to wake up, go to school, and pass my school requirements. When my dark days attack, I often want to just sleep and don’t go to school.”

Those who have consulted mental health professionals were always clients of guidance services, with serious referrals to external mental health professionals and reliance on mental health medicines. Unfortunately, not all have the courage and motivation to seek a mental health professional, while for others, access to

and affordability of services and medicines are not feasible. Oftentimes, those who are suffering from severe and extreme depression incur frequent absences and do not comply with school requirements.

Anxiety Levels Among the iGeneration

For anxiety levels as shown in Figure 3, both males and females are under extremely severe to severe anxiety levels at 63%. There are no significant differences among the levels of stress, anxiety, and depression among males and females except for the anxiety normal level, where males scored significantly higher than females at this level. This result negates the findings of a study among college students in Jhelum, Pakistan which found that females scored higher in depression, anxiety, and stress (Raza et al., 2018).

Related to their stress, some students experience panic attacks and breakdowns, as seen in one of the respondent’s answers, and how they cope with anxiety.

“I sometimes experience breakdowns and panic attacks... I try to calm myself by doing breathing exercises, breathing in a paper bag, drinking water, going outside where the dogs would notice me crying, or just sitting and just crying...”

Coping mechanisms for most people who experience anxiety are self-learned, and only a

Figure 2

Depression Levels of iGeneration Based on DASS-21 Results, 2019

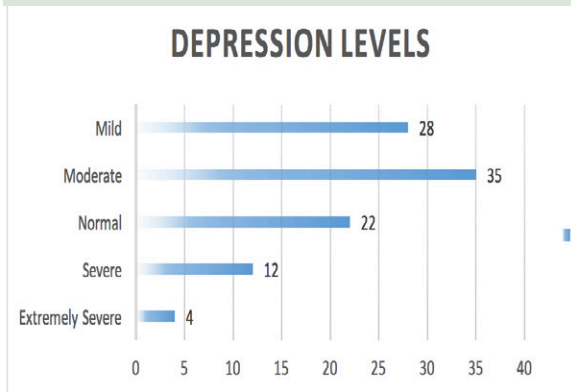
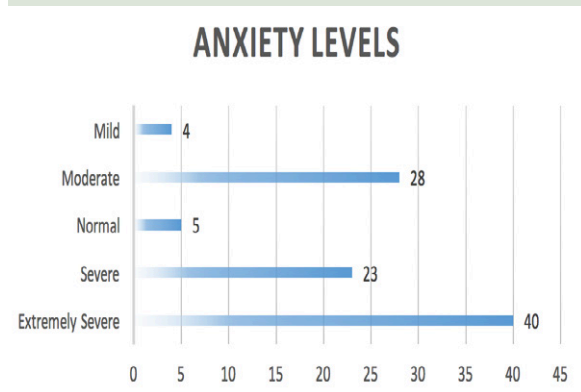


Figure 3

Anxiety Levels Among iGeneration Based on DASS-21 Results, 2019



few would opt to visit a professional mental health care provider.

One reason why most of the respondents are experiencing severe and extremely severe levels of anxiety could be that they are undergoing the transition of adapting from senior high school to university life, as most of them are first-year students. University life for most of them was a drastic change, especially when they had to migrate to the city and be away from their families. For others, university life would also mean an additional financial burden, as some are not from affluent families, and so some would have to juggle academic demands, work demands, family demands, and other demands.

Looking into the results of the DASS survey, the most critical aspect of mental health to be addressed for the majority is handling their anxiety levels. For some of the respondents, depression is a major issue for which further psychosocial mental health care support is recommended. For stress levels, providing stress management techniques is recommended. This corroborates the study of university students in Lebanon, where first-year students were highly vulnerable to mental health issues as they were at a stage of transition (Maddah et al., 2020).

Also, another factor to consider in the iGeneration's anxiety levels is their peer relations (peer crowd affiliations and peer victimization, quality of relationships), because multiple aspects of the youth's social relations contribute to one's feelings of anxiety (Greca & Harrison, 2010).

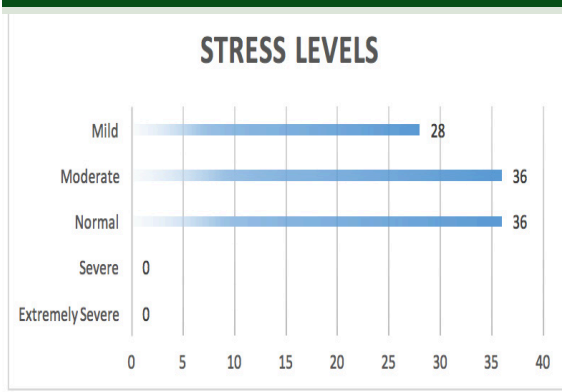
Another factor in consideration of the generation's anxiety is associated with internet addiction and excessive use of social media. This can be corroborated in another cross-cultural study from six Asian countries (China, Hongkong, Japan, South Korea, Malaysia, and the Philippines), which showed that internet addiction mediated an association between social anxiety and poor psychological well-being (Lai et al., 2015).

Stress Levels Among the iGeneration

For stress levels, most of the respondents experienced moderate to normal levels of stress for both males and females (Figure 4). Most of them admitted that, as students, class requirements are a major stressor for them. Below

Figure 4

Anxiety Levels Among iGeneration Based on DASS-21 Results, 2019



are two sample statements from respondents, one adaptive and the other maladaptive:

"I just go with my daily life and let myself feel the pressure until I have a mental breakdown. I cry a lot. I think a lot at night."

"When I am stressed and depressed, I keep myself busy so that I won't have time to overthink my problems. Another is that I usually stay in my room and play music."

The majority of the qualitative responses of the students show that school requirements are the major stressor for them. The majority of them would cope through entertainment through music and video, reframing thoughts, and being involved in productive activities. For those who cannot handle the stress, crying out and breakdowns are possibilities.

Self-harming Behavior of the iGeneration

Table 1 presents the 22 self-harming behaviors tried by the respondents. Behaviors in bold font are behaviors committed by more than 5% of the respondents. Significance tests were also done for all kinds of self-harming behaviors stated in the questionnaire and with gender. The following behaviors—(a) overdosed, (b) cut oneself on purpose, (c) burned oneself, (f) abused alcohol, (g) driven recklessly on purpose, (h) scratched oneself on purpose, (l) set oneself in a relationship to be rejected, (s) exercise one's injury on purpose, (t) tortured oneself with self-defeating thought



and (v) abused laxatives were significantly different between genders. Males were more vulnerable to physical self-harming behaviors while females were more likely to engage in psychological and socially self-harming behaviors. This result is corroborated by the study of Batani et al. (2013) where more males did succeed in committing deadly self-harming behavior such as ingesting deadly chemicals. For non-suicidal self-harming behaviors, females are more likely to do

it as corroborated by some studies (Green et al., 2018; Bresin & Schoenleber, 2015). However, adherence to masculine images among men would make them more vulnerable to committing self-harm (Green et al., 2018).

Table 1 also shows that the top three self-harm behaviors engaged by the respondents were “hit oneself on purpose” at 24%, “tortured oneself with self-defeating thoughts” at 16%, and “abused

Table 1*Self-Harm Inventory Results Among iGeneration, 2019*

Types of Self-Harm Behavior	Female (n=1092)		Male (n=456)		Total (n=1548)		p value
	f	%	f	%	f	%	
A - Overdosed	30	2.75%	4	0.88%	34	2.20%	0.022*
B - Cut yourself on purpose	117	10.71%	17	3.73%	134	8.66%	0.00*
C - Burned yourself	7	0.64%	7	1.54%	14	0.90%	0.09*
D - Hit yourself	259	23.72%	112	24.56%	371	23.97%	0.72
E - Banged yourself on purpose	62	5.68%	40	8.77%	102	6.59%	0.03*
F - Abused Alcohol	105	9.62%	101	22.15%	206	13.31%	0.00*
G - Driven Recklessly on Purpose	5	0.46%	13	2.85%	18	1.16%	0.00*
H - Scratched Yourself on Purpose	103	9.43%	30	6.58%	133	8.59%	0.07
I - Prevented wounds from Healing	47	4.30%	17	3.73%	64	4.13%	0.61
J - Made Medical Situations worse	45	4.12%	12	2.63%	57	3.68%	0.16
K - Been Promiscuous (e.g. had many sexual partners)	4	0.37%	1	0.22%	5	0.32%	0.64
L - Set yourself in a relationship to be rejected	30	2.75%	22	4.82%	52	3.36%	0.04*
M - Abused prescription medicine	22	2.01%	3	0.66%	25	1.61%	0.05
N - Distanced yourself from God as a Punishment	85	7.78%	38	8.33%	123	7.95%	0.72
O - Engaged in emotionally abusive relationships	32	2.93%	10	2.19%	42	2.71%	0.41
P - Engaged in sexually abusive relationships	4	0.37%	1	0.22%	5	0.32%	0.64
Q - Lost a job on purpose	7	0.64%	6	1.32%	13	0.84%	0.18
R - Attempted Suicide	77	7.05%	28	6.14%	105	6.78%	0.52
S - Exercised an injury on purpose	19	1.74%	16	3.51%	35	2.26%	0.03*
T - Tortured yourself with self-defeating thoughts	187	17.12%	56	12.28%	243	15.70%	0.02*
U - Starved yourself to hurt yourself	112	10.26%	35	7.68%	147	9.50%	0.11
V - Abused laxatives to hurt yourself	0	0.00%	2	0.44%	2	0.13%	0.03*

Note: *Significant $\alpha=0.05$



alcohol” at 13%. Of these top three self-harming behaviors, alcohol abuse was significantly higher in males (22%) compared to females (10%), while self-defeating thoughts were significantly higher for females (17%) compared to males (12%).

Another alarming trend in the data was that the self-harming behavior engaged in by the respondents were – (1) cut oneself on purpose at 9% of the respondents mentioning that they did this, (2) scratched oneself on purpose at 9%, (3) attempted suicide at 7%, (4) banged oneself on purpose at 7%, (5) starved oneself on purpose at 10%, (6) distanced themselves from God at 8%. Although there is not much difference in the proportion of males and females, self-harm behaviors, which are highly physical such as “banged oneself on purpose”, “drove recklessly”, “burned yourself” and “exercised an injury on purpose” were significantly higher for males compared to females. The behaviors that do not require much physical strength such as “cutting oneself”, “burning oneself”, “overdosing” and “abusing laxatives” were significantly higher for females compared to males.

For relational self-harm behavior, more females admitted that they were in a promiscuous relationship, in a sexually abusive relationship, and an emotionally abusive relationship though this constitutes less than 3% of the total respondents. Also, there was no statistically significant difference in the scores between males and females.

On the other hand, more males admitted that they set themselves to be rejected in a relationship which is considered statistically significant. Also, some male respondents admitted that they were in an emotionally abusive relationship. Overall, even if these behaviors do not pose any physical danger to their life, these kinds of relationship self-sabotaging behaviors would hamper their development towards achieving a fulfilling life. This can be corroborated by the Harvard Study of Adult Development (longitudinal study of 80 years) which confirmed that quality relationships enhance longevity and happiness and lack of it would negatively affect health and longevity (Adult Development Study, 2014).

Another trend of self-harming behavior admitted by 8% of the respondents was that they

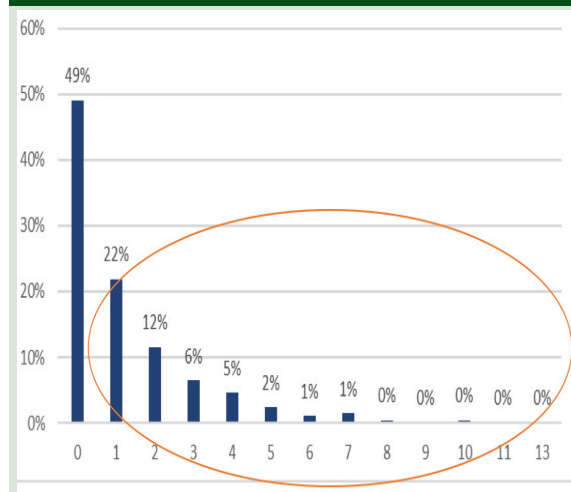
“distanced themselves from God.” This behavior is an interesting factor because many Filipinos would identify themselves as highly spiritual as seen in some of the qualitative responses of the students when they do self-help spiritual behaviors like praying and listening to spiritual music and talks and as seen in studies showing that spirituality helps boost mental health and healing (Lagman et al., 2014; Snider & McPhedran, 2013; Kao et al., 2020). Thus, this kind of behavior negatively affects spiritual and mental health.

Figure 5 illustrates the number of kinds of self-harming behaviors committed by respondents. Almost half of the respondents did not engage in any self-harm behaviors. The majority of those who tried self-harming behaviors committed one or two kinds of self-harming behavior at 34%. Approximately 1% of those who were surveyed committed 8 to 13 kinds of self-harming behavior. An outlier from the responses shows that the highest number of types of self-harming behavior committed by a respondent is 13 types of self-harming behavior.

Although half of those surveyed did not commit self-harming behavior, the other half committed self-harming behavior which points out the fact that the majority are at risk of these impulsive self-harming behaviors of which mental health programs are deemed as necessary.

Figure 5

Number of Self-Harm Behaviors Tried by iGeneration Students, 2019



This kind of alarming behavior corroborates a study of university students in Manila wherein 33.78% of the study's respondents committed self-harm behavior while 7.11% committed suicidal attempts in the past (Galicia & Bautista, 2018). This local study corroborates the high risk of individuals who repeatedly commit self-harm behavior. Also, such repetitive commission of self-harm behavior signifies a call for help. Sadly, not all of the respondents have access to professional mental health care or do not have the budget for access to mental health care services.

Protective Measures Among the iGeneration Students in Terms of Social Support and Life Skills

Social Support

Social support plays a big role in countering the negative impacts of the iGeneration's tendency to be involved in self-harming behavior and psychological vulnerabilities if social support is present. A meta-analysis of studies on mental health and social support from 1996 to 2015 reveals a high effect size of the correlation of these two variables (Harandi et al., 2017).

Results show that family and friends were the major sources of social support for both males and females (Figure 6). Only a few respondents mentioned that the barangay, community, and religious groups were part of their social support. It should be noted that for mental health support in the aspect of religion/spirituality, some would access spiritual mental health care through individualized traditions like prayer but not in the context of organized collective religious groups.

The respondents also identified the following iGeneration mental health care behaviors that may not require social support: (1) journaling; (2) communing with nature; (3) food tripping; (4) time out, which includes time to be alone; (5) sleeping; (6) reading books; (7) watching movies or animes; (8) engaging in positive self-talks; and (9) actively searching the internet for solutions and strategies to overcome their challenges. Regarding the self-harming behavior, one respondent stated that he resorted to engaging in negative vices as a coping mechanism.

Figure 6

Social Support of the iGeneration Students, 2019

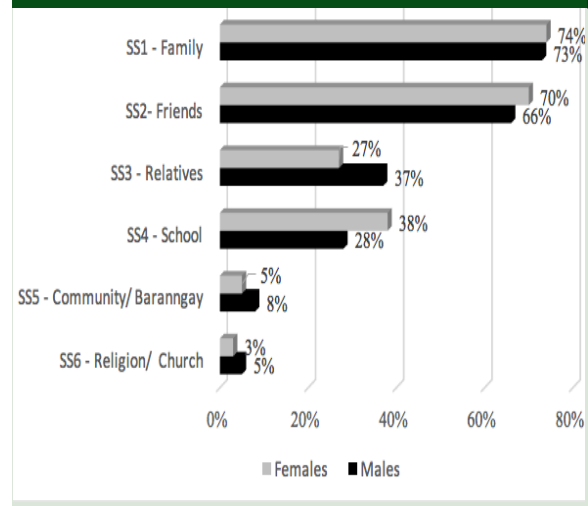


Figure 7 shows the professional mental health care-seeking behavior of the respondents. It shows that only 10% of females and 11% of males sought professional psychological help. For some, it was because they did not know who to approach. Some lack the financial means to consult a professional psychologist. One respondent acknowledged that she had considered seeking professional psychological support but was unable to do so due to financial constraints associated with mental health care expenses.

This result should be grounded in the national mental health scenario, in which there is an inadequate number of health workers (two to three per 100,000 people) and mental disorders affect approximately fourteen percent of the Filipino population (Lally et al., 2019). The national mental health findings are corroborated by this survey. Given the existing shortage of mental health professionals and the escalating prevalence of mental health concerns, it is imperative to redefine mental health programs to incorporate an interdisciplinary approach that engages various stakeholders and key actors, including the school and community.

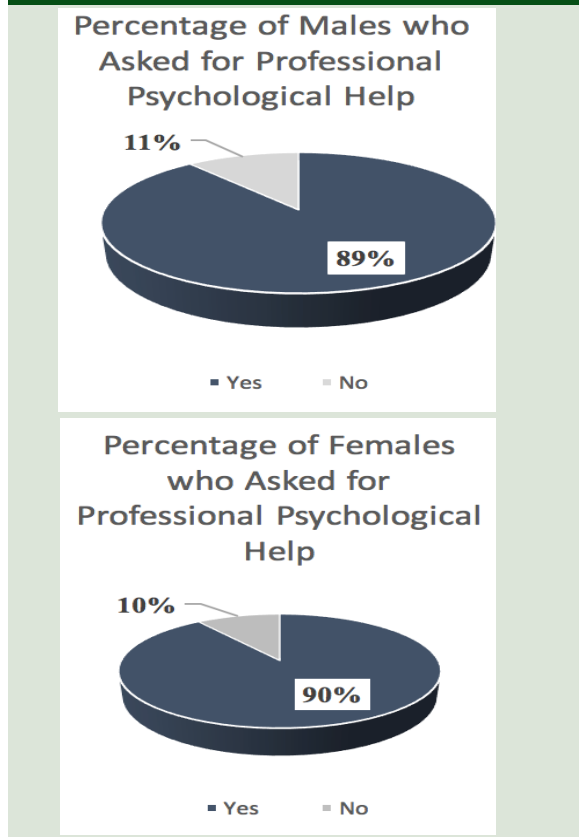
Life Skills of Students

Table 2 shows the results of the self-assessment of students' life skills. The students rated



Figure 7

Percentage of Male and Female iGeneration Students who Asked for Professional Psychological Help, 2019



themselves generally as average in five of the six sets of life skills. Interestingly, the students rated themselves as above average in assertiveness and self-control skills.

Additionally, two skills reveal statistically significant differences between men and women, as shown in Table 2. For emotional intelligence skills (self-awareness and empathy), the females rated themselves higher (3.57 or above average) than the males (3.46 or average). This can be expected because females have higher emotional awareness than males (Meshkat & Nejati, 2017). Conversely, the males ascribed higher self-ratings (3.40, 3.38) in comparison to the females (3.28, 3.30), albeit with numerical means that remain within the "average" range. As self-reports, this survey provides support for the aforementioned findings concerning mental health at the national level. Although Shubina and Kulakli (2019) discovered that females can achieve higher scores on certain critical thinking tests, it is plausible that males simply held a more elevated self-perception regarding their abilities.

In general, these self-assessment results are noteworthy because they indicate that the participants had the six essential skills recommended by the WHO (1999). They imply that the students had the innate capability to prevent or manage behavioral problems (e.g., substance abuse, dropping out, etc.) as asserted by WHO (1999). They also imply, following the

Table 2

Self-Assessment of iGeneration Students Along Life Skills, 2019

Life Skill	Female (n=1092)		Male (n=456)		p value
	Mean	Descriptive equivalent	Mean	Descriptive equivalent	
1. Communication and interpersonal skills	3.26	average	3.27	average	0.76
2. Decision making and problem-solving skills	3.28	average	3.40	average	0.01*
3. Creative thinking and critical thinking skills	3.30	average	3.38	average	0.06
4. Emotional intelligence skills (self-awareness and empathy)	3.57	above average	3.46	average	0.02*
5. Assertiveness and self-control skills	3.51	above average	3.58	above average	0.14
6. Resilience and ability to cope with problems skills	3.48	average	3.49	average	0.72

Note: *significant difference $\alpha=0.05$



idea of WHO (1999), that there would be less difficulty in mobilizing interventions from the community and schools as primary institutions to address the mental health needs of these iGeneration individuals. These interventions can be along the five themes listed by Weist et al. (2017): (1) cross-sector collaboration for care work, (2) meaningful youth and family engagement, (3) workforce development plus mental health literacy, (4) implementation of evidence-based practices and (5) monitoring. They can also include utilizing school organizations to promote student wellbeing in school and beyond, as Gomez (2018) suggested.

Concerning the differences between the sexes, the results imply that interventions involving emotional intelligence, self-awareness, and empathy should be more focused on males. In contrast, interventions about decision-making, problem-solving, creative thinking, and critical thinking should be more focused on females.

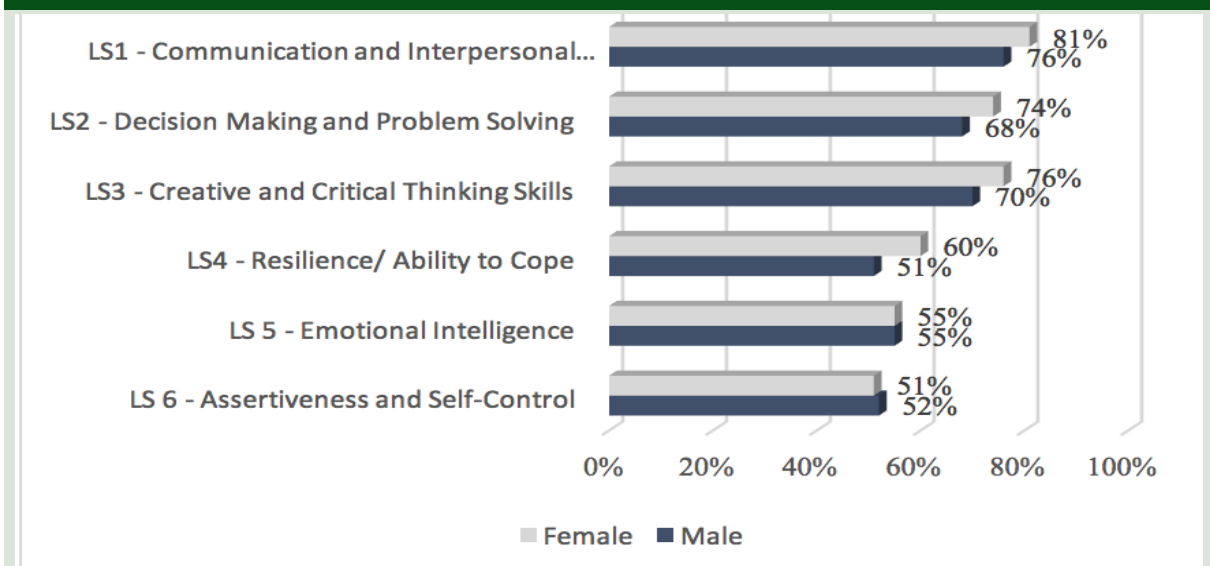
Figure 8 shows the life skills training that the iGeneration would want to have among the six life skills promoted by WHO (1999, 2014). Their topmost needs were communication and interpersonal skills. The students felt that this was the skill they wanted most to have, perhaps so that they could communicate more effectively with family and friends which are their major

sources of social support (Figure 4). Alternatively, the students wanted to gain communication and interpersonal skills so that they would also be able to express their concerns to other people who could help them: the school, relatives, church, community or barangay. This reason is also supported by the result shown in Figure 7 that around 90% are not seeking professional psychological help. However, it should be considered that many of them do not know whom to approach as seen in qualitative responses in which they prefer to do self-help activities such as journaling, communing with nature, food tripping, or engaging in entertainment. On the other hand, they might know who to approach except that they lack the communication and interpersonal skills to approach the mental health professional. The need for communication and interpersonal skills as number one in rank is further backed up by the result in Table 2, which shows that this skill has the lowest mean (3.26 and 3.27) among the six, thus would need the greatest attention.

Overall, more than half of the respondents identified all life skills as important as they recognized the importance of these skills in improving their mental health and quality of life. This affirms what studies have been done in different countries where introducing life skills in their school program improves mental health

Figure 8

iGeneration Students' Identified Life Skills Needs, 2019



(Ndetei et al., 2018; Maddah et al., 2020). Also, the presence of life skills showed less occurrence of mental health problems (Maddah et al., 2020).

Post-Research Data Gathering Mental Health Care

After data gathering, mental health care interventions were provided for the majority of the respondents of which some of the interventions were integrated into one general elective subject (Social Sciences 21: Understanding the Self). The mental health intervention programs were done in partnership with other organizations such as the Office of Student Affairs, Social Science Department, Supreme Student Government, Local Government Units, Department of Agriculture, Department of Environment and Natural Resources, College of Forestry, and Institute of Social Research and Development.

One intervention done was the activity "A Tree Planting Activity for Sustainable and Healthy Communities" at Baguio Animal Breeding and Research Center, Green Valley, Shilan Communal Forest, Ambiong Communal Forest, and Itogon. The initiative to integrate engaging in nature-based communication and mental health promotion was led by the Supreme Student Government. This was done simultaneously in four areas during the university Foundation Day celebration in 2019. During the tree planting, personalized dedications were designed by each student for each seedling that they would plant. Each seedling represented value to life and their life goals.

Another intervention done was a seminar on the "Flourishing Self" held on December 3, 2019. Mental health care tips on strengthening one's mental health by capitalizing on internal and external protective factors were shared with an alumnus.

Feedback from students often would be in the realm of increasing their self-awareness and teaching them protective habits as seen in one of the statements of a respondent:

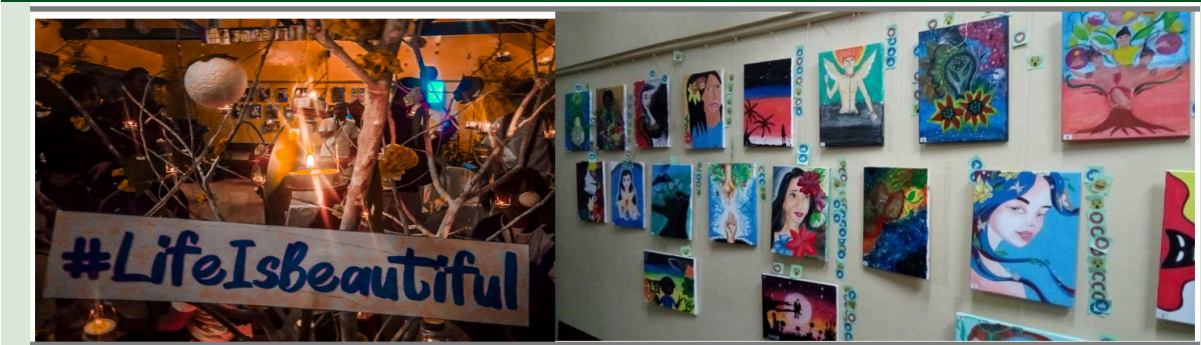
"It helps me pay attention to my emotions when I am stressed, depressed, and anxious. The more I know my habits, the easier it is to improve myself. Changing my own weaknesses into strengths becomes a reality. The workshops helped me have a better vision in life and to appreciate things like small gifts, sunshine, coffee, our parents, and many more."

Another intervention done was a month-long art workshop under the "Project Inubbo" (Figure 9) which was a fundraising campaign spearheaded by the Office of Student Services to raise funds for the mental health care medicines of diagnosed students. The workshops were participated by the majority of the respondents. Outputs were placed as an exhibit. Outputs consisted of videos, essays, haikus, paintings, photos, and dish gardens. A candle lighting ceremony culminated the activity which was held last December 2, 2019.

Also, the results of this study are integrated into the module development of Social Sciences 21 (SY 2020-2021) and the discussion of the suicide protocol of the university.

Figure 9

Project Inubbo Spearheaded by the Office of Student Services for the Second Semester 2019-2020



Conclusions

The level of mental health issues of the iGeneration are very apparent, especially in terms of their anxiety level where the majority were under severe to extremely severe levels. Depression states are also a concern. Nevertheless, the majority of the youth respondents were under normal to moderate stress levels. What is alarming is that almost half of the respondents admitted to engaging in self-harming behaviors while a few are engaged in repetitive self-harming behaviors. On the other hand, only 10% of the surveyed respondents were seeking professional mental health care. Also, life skills training was seen as a necessity for more than half of the respondents where interpersonal and communication life skills were identified as the topmost needed life skills training. With such a scenario, improved, and enhanced coordination among the mental health care programs and policies for students and the development of proactive mental programs via curriculum design and extracurricular are needed.

Recommendations

Due to the psychological vulnerabilities shown by the students on stress and anxiety, anxiety management skills workshops or programs are needed to help them develop life skills in stress management. In addition to this, life skills in interpersonal and communication, creative thinking, and decision-making through evidence-based modules and programs need to be designed and implemented for the students. Moreover, collaborative interdisciplinary programs for mental health programs and policy are needed to help address the self-harming behavior of students. Collaborative interdisciplinary programs would include: (a) institutionalizing suicide and mental health protocols, (b) establishing mental health care help across colleges that would include mental health advocates and volunteers; and (c) training mental health advocates and volunteers in the University and the communities. With these recommendations, the psychological vulnerabilities shown by the youth could be addressed and would help in the development of resilient youth.

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