

Demographic and Psychological Factors as Correlates of Suicidal Ideation among Filipino High School Students

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Abstract - Suicidal ideation is a highly reliable precursor of suicide attempt and complete suicide which constitutes fleeting and extensive thoughts, exhaustive planning, and role playing of killing oneself. In the Philippines, local literature and studies on suicidal ideation among youth are sparse and received scant attention in terms of research and prevention despite the burgeoning suicide cases. This study examined the demographic and psychological correlates of suicidal ideation among selected Filipino high school students from private institution. Demographic factors are gender, age, and grade level while psychological factors include depression, anxiety, and stress levels as determined by Depression, Anxiety, and Stress Scale – 42. Moderate Scale for Suicidal Ideation was administered to measure the students' suicidal ideation level. The results revealed normal to moderate depression and stress levels but moderate to extremely severe anxiety levels among the grades 7 to 12 students. Majority have low to moderate suicidal ideation levels. Surprisingly, a large percentage of high school students have severe suicidal ideation level. Somers' delta revealed no significant relationship between age and suicidal ideation at ($r=0.6$, $p < .223$) and ($r=0.11$, $p < .053$) in terms of grade level. Theta correlation deemed no significant relationship between gender and suicidal ideation at ($r=.04$, $p < .429$) respectively. Significant relationship between the psychological factors and suicidal ideation was evident. Depression contributed to suicidal ideation in a moderate level at ($r=0.51$, $p < .001$), anxiety contributed to suicidal ideation in low level at ($r=0.36$, $p < .001$), while stress contributed to suicidal ideation in low level at ($r=0.36$, $p < .001$). The results called for concerted efforts from parents, schools, and mental health professionals in promoting positive mental health among youth.

Keywords – anxiety, demographics, depression, stress, suicidal ideation

INTRODUCTION

Suicidal ideation which includes thoughts of killing or harming oneself is a worldwide health concern in developed and developing countries leading to 6% of death among youth globally. It typically starts from a passive vague wish to die which leads to more active phase that entails deliberately planning of suicide. Those with suicidal ideations are 6 times more probable to attempt suicide compared to those without. Reasons for suicidal ideation include family problems, academic pressure, heightened stress, prejudice, and discrimination [1]. Moreover, suicidal ideation is strongly related to mental health problems including anxiety and depression. The lifetime risk for suicide among youth with untreated depression is about 20% and 25% for those who reported high anxiety symptoms [2]. The limited

researches and statistics on suicide cases in the Philippines strongly call for increased studies on the causes and occurrences of suicidal ideations among youth [3]. Early identification of suicidal ideation and appropriate treatment of mental health problems are important strategies in suicide prevention [4].

OBJECTIVES OF THE STUDY

This study investigates the relationship between the demographic profile of Filipino high school students and psychological factors classified as depression, anxiety, and stress with suicidal ideation.

MATERIALS AND METHOD

A descriptive – correlation research method was utilized. DASS – 42 and MSSSI were completed by 300 Filipino high school students

enrolled in private, Catholic academic institution selected through stratified random sampling. Letters of intent, consent, and agreement were disseminated for approval prior the test administration. The tests were administered 2 –

3 weeks before quarterly examination to prevent test contamination. Somers’ delta and theta correlation were used to determine the relationship between the variables.

RESULTS AND DISCUSSION

Table 1. Demographic Profile of High School Students

Demographic Variables	F	%
GENDER		
Male	150	50.0
Female	150	50.0
AGE		
12 – 13 years old	67	22.3
14 – 15 years old	101	33.7
16 – 18 years old	132	44.0
GRADE LEVEL		
7 to 8	100	33.3
9 to 10	100	33.3
11 to 12	100	33.3

Male and female high school students from grades 7 to 12 were equally represented with 33.3% for each grade level. The largest percentage of respondents comprised the late adolescents group with ages 16 to 18 years old at

44.0%, followed by the middle adolescents group with ages 14 to 15 years old at 33.7%, and the least percentage comprised the early adolescents group with ages 12 to 13 years old at 22.3%.

Table 2. Depression Level of High School Students

Depression Level	M	F	%
Extremely severe	31.85	39	13.0
Severe	23.86	44	14.7
Moderate	16.19	85	28.3
Mild	11.28	40	13.3
Normal	4.93	92	30.7
Total	15.24	300	100.0

For the past two weeks, normal depression level was reported by 30.7% with a mean of 4.93, followed by moderate depression level as experienced by 28.3% with a mean of 16.19, severe level of depression was reported by 14.7% with a mean of 23.86, mild depression level was experienced by 13.3% with a mean of 11.28, and extremely severe depression level was reported by 13.0 with a mean of 31.85.

Depressive symptoms including dysphoria, hopelessness, anhedonia or the lack of interest or social involvement were exhibited by those with mild to moderate levels of depression. Other symptoms such as low self – esteem, feelings of worthlessness, and hopelessness were experienced by those with severe to extremely severe levels of depression. This result supported the findings of Burket, et. al (2016),

which demonstrated that such symptoms were salient factors of depression among adolescents [5]. Hence, teen depression was also considered

the most common disorder related to suicidal ideation and behavior [6].

Table 3. Anxiety Level of High School Students

Anxiety Level	M	F	%
Extremely severe	24.32	103	34.3
Severe	17.32	71	23.7
Moderate	12.06	72	24.0
Mild	8.12	33	11.0
Normal	4.33	21	7.0
Total	16.54	300	100.0

Extremely severe anxiety level was predominant among 34.3% with a mean of 24.32, followed by moderate anxiety level as experienced by 24.0% with a mean of 12.06, severe anxiety level was reported by 23.7% with a mean of 17.32, mild anxiety level was experienced by 11.0% with a mean of 8.12, and normal anxiety level was reported by 7.0% of students with a mean of 4.33. Heightened feelings of worry and pressure, accompanied by physical symptoms were exhibited by those with moderate, severe, and extremely severe levels of anxiety for the past two weeks. The high anxiety levels of high school students could be indicative of the students' tendency to perceive situations as more threatening than they actually were and proneness to internalize negative implications of their anxiety symptoms. This result supported the findings of Hess (2014) on the anxiety prevalence among high school students in Northeast United States which stated that students with high anxiety levels are fearful because of the cycle of their negative thinking [7]. The internalized nature of anxiety symptoms usually leads to unrecognized presence of anxiety disorders which have been known to negatively impact the student's academic, personal, and social development. In addition, the results can also be attributed to increased academic demands, peer pressure, and high parental expectations as presented in the findings of Karande, et. al (2018) on anxiety

level of secondary students from the United Kingdom and the United States [8]. It can also be inferred that the high levels of anxiety of high school students can be related with the pre – examination period. Pre – examination period is the 3 – week period prior to a formal examination which is considered a stressful time for students. This result supported the findings of Yadav, et. al (2017) on anxiety symptoms in students which revealed that pre – examination period triggers high level of anxiety [9]. Meanwhile, the lesser percentage of students with normal to mild levels of anxiety were probably able to positively cope with life stressors as supported in the findings of Hess (2014) on the prevalence of anxiety of high school students [7].

Consequently, the large percentage of high school students with extremely severe to severe anxiety levels than depression was consistent with the findings of Dahlsgaard (2013) on the link of anxiety and suicide [10]. Many high school students were increasingly becoming more prone to anxiety than depression compared 30 years ago. Moreover, the age group of 15 to 16 year old with reported symptoms of anxiety has doubled. Dahlsgaard (2013) indicated that changes in emotional responsiveness, less control over emotions, and inability to develop resistance or resilience to negative life events are factors related to students' high level of anxiety [10].

Table 4. Stress Level of High School Students

Stress Level	M	F	%
Extremely severe	36.40	10	3.0
Severe	29.88	42	14.3
Moderate	21.64	92	30.7
Mild	14.49	107	35.7
Normal	6.51	49	16.3
Total	18.26	300	100.0

For the past two weeks, mild stress level was chiefly reported by 35.7% with a mean of 14.49, followed by moderate stress level as experienced by 30.7% with a mean of 21.64, normal stress level was reported by 16.3% of students with a mean of 6.51, severe stress level was experienced by 14.3% of students with a mean of 29.88, and extremely stress level was reported by 3.0% of students with a mean of 36.40. The large percentage of students with normal to moderate stress levels may be reflective of students' utilization of positive coping mechanism which include listening to music, talking to someone, physical exercise, engaging in hobbies, and participation in extra – curricular activities. This supported the findings of Chiapas, et. al (2018) on the stress level of high school students in Mexico which stated that the more coping resources a student has, the lesser is the level of stress [11]. A lower stress level is reported when students have more

positive resources including interests, non – academic activities, and good social relationship.

The results can also be attributed to the type of school where the students are enrolled which is a private school. This supported the work of Santos (2018) on the academic stress of high school students. Santos (2018) asserted that students from private schools have lower stress levels because of the school's ability to equip students with necessary knowledge, abilities, and values in dealing with life challenges [12]. Aside from academics, students were given the opportunity to develop positive coping skills. However, these negated the findings of Ossola (2015) on the stress levels among high school students from private schools. Ossola (2015) argued that students from private schools are chronically stressed despite receiving a lot of advantages including access to challenging classes and well – equipped staff [13].

Table 5. Suicidal Ideation Level of High School Students

Suicidal Ideation Level	M	F	%
Severe	28.18	66	22.0
Moderate	17.17	37	12.3
Mild	11.63	41	13.7
Low	3.19	156	52.0
Total	11.54	300	100.0

Low level of suicidal ideation was chiefly reported by the majority of high school students at 52.0% with a mean of 3.19

within 1 – year duration. Surprisingly, severe level of suicidal ideation was experienced by 22.0% with a mean of 28.18. Mild level of

suicidal ideation was reported by 13.7% with a mean of 11.63 and moderate suicidal ideation was experienced by 12.3% with a mean of 17.17. Students with reported severe level of suicidal ideation may be experiencing heightened stress from academics and relationship, depression, and family conflict as indicated in the study of Lee and Ham (2018) on the psychosocial and behavioral factors linked to suicidal ideation among adolescents. Consequently, it can be inferred that most students have low to moderate levels of suicidal ideation [14]. This can be attributed to the students' increased level of knowledge on suicidality which supported the findings of Chen, Kang, and Lin (2017) on the knowledge of suicide and suicidal behavior of Chinese students. Their research highlighted that low to moderate occurrences of suicidal ideations were largely the results of the students' knowledge of suicidal behavior [15].

Further, the result can be brought by the culture in the private institution where the students are enrolled. This result confirms the findings of Ziaei, et. al (2017) on the suicidal

thoughts among Iranian high school students which reported that students from private schools have low to moderate suicidal ideation levels because of the school's high religiosity and spirituality [16]. The result also supported the findings of the local study of Canubida, Herrera, and Talacero (2017) on the suicidal ideation among students at Cebu City which reported that students with low level of suicidal ideation were able to access available resources such as the presence of guidance counselors and various peer support groups. This finding implied that there is a need for promotion of resources, help, and support for high school students [17].

However, the result negated the findings of Hom, et. al (2017) on their study about the disclosure and denial of students' suicidal ideations. The researchers argued that low to moderate suicidal ideation levels can be attributed to the students' patterns of disclosure. They reported that high school students with low to moderate suicidal ideation levels typically mentioned their thoughts to their friends than family members and mental health professionals [18].

Table 6. Mean and Verbal Interpretation of Responses to Suicidal Ideation Indicators

Indicators of Suicidal Ideation	M	Verbal Interpretation
<i>Death Wish</i>	0.99	Weak/ Unsure, seldom thinks about death
<i>Wish to continue living</i>	1.65	Moderate/ Has current desire to live
<i>Desire for active suicide attempt</i>	0.61	Weak/ Unsure whether wants to try
<i>Non – active suicide attempt</i>	0.61	Weak/ Unsure whether would leave life or death to chance
<i>Thought duration</i>	0.89	Weak/ Short duration, several minutes
<i>Thought frequency</i>	0.72	Weak/ Low frequency, once or twice
<i>Thought intensity</i>	0.78	Weak
<i>Active attempt deterrent</i>	0.67	Weak/ Can name at least one that would keep one from attempt
<i>Reasons for dying/leaving</i>	0.76	Weak/ Has reasons for living but sometimes thought about reason for dying
<i>Planning/Specificity degree</i>	0.74	Weak/ Minimal consideration
<i>Availability of method/opportunity</i>	0.65	Weak/ Method would take time/ effort
<i>Sense of courage to execute attempt</i>	0.47	Weak/ No courage, afraid
<i>Competence for attempt</i>	0.49	None/ Not competent
<i>Expectancy to carry out attempt</i>	0.62	Weak/ Unsure
<i>Talk about death/ suicide</i>	0.81	Weak/ Probably talk more about death than

<i>Writing about death/ suicide</i>	0.45	usual without specific mention of wish to die
<i>Suicide note</i>	0.46	None/ No written material
<i>Actual preparation</i>	0.23	None
Overall Mean	0.64	Weak/ Low frequency

The general finding is supported by the students' responses to the indicators of suicidal ideation outlined in Table 5. The high school students seldom think about death. The students reported having short duration of suicidal thoughts which last for several minutes. Talk about death and suicide was probable without specific mention of death wish. The intensity of thoughts experienced by students was weak. It is noteworthy that students have reasons for living but sometimes thought about dying. Surprisingly, the degree of specificity/planning for a suicide attempt reported by students is weak. In addition, the students have low frequency of suicidal ideation which signifies that thoughts are usually experienced once or twice. The students reported having probable deterrent to active attempt. The students could name at

least one that would keep them from suicide attempt. In addition, the students also reported having current desire to live. Interestingly, the students reported that they were unsure about the expectancy of actual attempt. This is connected to their reported responses on passive suicide attempt and desire to make an active attempt as weak. The students were unsure whether they want to try an attempt. Moreover, they were unsure whether they would life or death to chance. The students viewed themselves as not competent on carrying out suicide. The students reported having no courage to commit suicide. Although the students admitted having weak suicidal ideations in low frequency and intensity, they have not written a suicide/death note and made an actual preparation for committing suicide.

Table 7. Result of Tests of Significant Relationship between the Demographic Factors and Suicidal Ideation Level

Demographic Factors	Theta	p – value
Gender	.04	.429
Demographic Factors	Somers' d	p – value
Age	.06	.223
Grade Level	.11	.053

None of the demographic factors were found significantly associated to the respondents' suicidal ideation level. No significant relationship was found between gender and suicidal ideation at ($r = .04, p < .429$). This result supported the findings of Canubida, Herrera, and Talacero (2017) on suicidal ideation among college students in Cebu City which reported that gender was not significantly linked to suicidal ideation

[17]. Students' chosen college programs were found related to their suicidal ideation level instead. In addition, result confirms local findings of Maximo (2014) which demonstrated that gender has no significant relationship with suicidal ideation. Factors such as being placed in an upper middle class socio – economic status and lower well – being in the family were the salient determinants of suicidal ideation [19].

However, result contradicted the findings of Peltzer and Pengpid (2017) on the suicidal ideations among students from ASEAN states including Philippines, which reported that gender has significant relationship with the suicidal ideation [20].

Similarly, age has no significant relationship with the respondents' suicidal ideation level at ($r = .06, p < .223$). This result confirmed the findings of Huang, et. al (2017) on their analysis of the components of suicidal thoughts and behavior which revealed that age was not significantly related with suicidal ideation among adolescents during a 12 – month period [21]. This result was also consistent with the findings of Canubida, Herrera, and Talacero (2017) which demonstrated that age was not related to the individual's thought process on suicide [17]. However, this negated the findings of Cha, et. al (2018) on the epidemiology, etiology, and treatment of suicide among youth which reported that age has significant relationship with the suicidal ideations among young adolescents [22]. The result

was also in contrary with the findings of Estrada, et. al (2019) on their local study of 13 to 17 year old high school students enrolled in Alternative Learning System which revealed that age was significantly related to suicidal ideations. The significant link between age and suicidal ideation was mediated by students' early adverse life experiences [23].

Grade level has no significant relationship with the respondents' suicidal ideation level at ($r = .11, p < .053$). This supported the findings of Huang, et. al (2017) which demonstrated that grade level has no significant relationship with the suicidal ideation among adolescents during an observation and assessment for 12 – month period [21]. However, this was contrary to the findings of Dalen (2012) on the association of class composition and suicidal ideation which reported that grade level was significantly related with the suicidal ideation among adolescents from Norwegian country [24].

Table 8. Result of Tests of Significant Relationship between the Levels of Depression, Anxiety, Stress, and Suicidal Ideation

Psychological Factors	Somers' d	p – value
Depression	.51 **	.001
Anxiety	.36 **	.001
Stress	.36 **	.001

All psychological factors have significant relationship with the respondents' suicidal ideation level. Result showed depression as significantly related with the respondents' suicidal ideation in a moderate level at ($r = .51, p < .01$). Most high school students reported indicators of depression for some degree which might be related to the moderate suicidal ideation level. This supported the local findings of Villejo (2015) on the suicidal tendencies among Filipino youth. Villejo (2015) argued that the person's reported feelings of sadness, depression, and hopelessness for some degree or sometimes are

connected with moderate suicidal ideation level [25]. In addition, the result confirmed the findings of Smichney, Chrisler, and Villaruel (2014) on risk factors for adolescent suicide which revealed that depression has significant relationship with adolescents' suicidal ideations. Smichney, Chrisler, and Villaruel (2014) elaborated that 90% of adolescents with suicidal ideations suffered from depression [26]. In addition, the result is related with the study of Izadinia, et. al (2010) which stated that depression is strongly related to suicidal ideations than anxiety and stress. It can be inferred that anxiety and stress were the next

contributing factors related to suicidal ideation [27]. Moreover, anxiety has significant relationship with the respondents' suicidal ideation in a low level at ($r = .36, p < .01$). Anxiety contributed to suicidal ideation in a low level despite the respondents' elevated levels of anxiety. This result was supported by the study of Zarrouq, et. al (2015) on the suicidal behaviors among Moroccan students which reported that anxiety has little or weak relationship with suicidal ideation. Anxiety slightly raised the likelihood of suicidal ideation but these small increases were unlikely to produce suicidal ideations [28]. However, this negated the findings of Hill, Castellanos, and Petit (2011) on suicide – related behaviors in anxiety among high school students which reported that anxiety has strong positive relationship with the level of the students' suicidal ideation [29]. The result was also in contrary with the findings of Bentley, et. al (2016) which revealed that self – reported anxiety symptoms were strongly related with suicidal ideation of high school students after controlling the depression level and demographics. Bentley, et. al (2016) also revealed that anxiety alone was significantly related with suicidal ideation [30].

CONCLUSION AND RECOMMENDATION

Normal to moderate depression and stress levels but moderate to extremely severe anxiety levels were chiefly reported by many students for the past two weeks. Low to moderate levels of suicidal ideation was experienced by majority of the students within the span of one year. It was also alarming that large percentage have severe level of suicidal ideation. No demographic factors level were found significantly related suicidal ideation. Psychological factors including depression contributed to the suicidal ideation level of students in a moderate level while anxiety and stress contributed to the low suicidal ideation level despite the reported elevated levels of anxiety. Considering the prevalence of depression among many high school students,

Stress has significant relationship with the respondents' low suicidal ideation at ($r = .36, p < .01$). Many high school students reported indicators of stress for some degree which might be linked to the low level of suicidal ideation. This confirmed the findings of Chellamuthu and Kadiravam (2017) on the effects of academic stress and mental health which reported a low significant relationship between suicidal ideation and stress among secondary Indian students. Chellamuthu and Kadiravam (2017) elaborated that low significant relationship between suicidal ideation and stress can be indicative of good mental health and increased productivity among students [31]. However, this contradicted the findings of Rubin (2013) on predicting suicide which revealed that stress is strongly related to the adolescents' suicidal ideations brought by various challenges including hormonal changes from puberty, peer pressure, and increased academic demands during adolescence period [32]. Further, the result was contrary to the findings of Zozulya (2016) which reported that high incidence of suicidal ideation found in college students is strongly related to high stress level from academic demands, lack of peer support, and low familial relations [33].

albeit normal to moderate levels, guidance counselors should continue to conduct seminars on mental health issues as preventive measures. For those with extremely severe level of depression, referrals should be made to other mental health professionals like psychologists and psychiatrists for necessary assessment and treatment. For efficient management of psychological cases, schools should maintain an updated directory of outside referrals, e.g. mental health agencies, clinics or community – based organizations with mental health advocacies. Workshops on stress management and effective coping strategies should be regularly conducted to address the needs of students facing mental health issues. Likewise, peer counselors club and mentoring groups should be organized to foster a climate of social

support for those who experience bouts of anxiety and stress and thus, prevent suicidal ideation. Schools should provide more extra – curricular activities for high school students to promote positive coping mechanisms and enhance well – being. Guidance counselors should include parents in seminars on mental health issues experienced by their children, and at the same time, emphasize the importance of their roles in prevention and resolution of their children’s mental health problems. Teachers should integrate topics on mental health in their academic classes through classroom activities, projects, debates, individual and group

discussions to increase students’ awareness of the value of a healthy lifestyle. Guidance counselors should conduct a yearly assessment of the students’ level of depression, anxiety, stress, and suicidal ideation through administration of psychological tests and conduct of individual interview to establish a baseline data for their program of activities as well as individual interventions as needed. Further studies on other factors associated with suicidal ideation should be conducted using a more extensive sample across grade levels and also including both males and females from different age groups.

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