PJP

ORIGINAL RESEARCH

A CROSS-SECTIONAL STUDY ON THE PREVALENCE AND SEVERITY OF SUICIDAL IDEATIONS AND BEHAVIORS OF SENIOR HIGH SCHOOL STUDENTS USING THE COLUMBIA-SUICIDE SEVERITY RATING SCALE (C-SSRS)

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ABSTRACT

OBJECTIVES: In the light of increased suicide risk among adolescents, this research aimed at determining the prevalence and severity of suicidal ideations and behaviors of senior high school students in a public secondary school in Metro Manila using the Columbia-Suicide Severity Rating Scale (C-SSRS).

METHODOLOGY: This is a descriptive cross-sectional school-based study, conducted on 236 senior high school students, 18 years old and above, in San Juan National High School (SJNHS) in San Juan, Metro Manila. The study employed convenience sampling. Upon selection, the C-SSRS was administered. Data on four constructs of suicide were gathered: 1) suicidal ideation severity; 2) intensity, which was quantified in terms of frequency, duration, control, deterrents and reasons for suicidal ideation; 3) suicidal behavior rated on a nominal subscale as actual, aborted, interrupted, preparatory behavior and non-suicidal injurious behavior; and lastly 4) lethality of actual suicide attempts on a 6-point ordinal scale, and if actual lethality was zero, potential lethality was further rated on a 3-point ordinal scale.

RESULTS: The majority (67.8%) had mild suicidal ideations; 37.71% had active suicidal ideations with intent but not necessarily a specific plan and only 13.98% had active suicidal ideation with intent to act and a specific plan. The intensity of suicidal ideation was not that frequent in 35.59% of the respondents i.e.18.64% 1x/ week and 16.95% less than 1x/ week. About a third (30.07%) had very short duration of suicidal ideations i.e. fleetingly (19.92%) or less than an hour/ day (11.02%). A third (32.62%) were able to easily control (18.64%) or control with minimal difficulty (13.98%). Reason for suicidal ideation were either to get attention (10.59%) or to end the emotional pain (11.02%). A third (30.93%) had actual attempts (15.25%) and Non -Suicidal Self Injury (NSSI) (15.68%); while another 35.06 % had interrupted (16.53%) or aborted (19.07%) attempts. Those who had actual attempts, 41.67% had no physical injury while 50 % incurred minor injuries. Thirty- two (88.89%) had suicidal attempt that was likely to result in injury but not likely to cause death.

CONCLUSION: In light of these relatively high prevalence rates for suicidal ideation and behaviors, school-wide intervention on education or awareness programs, gatekeeper training, peer leadership, skills training and screening or assessment may have to be instituted to curb the increased suicide risk of the senior high school students and further prevent suicide attempts.

KEYWORDS: *Prevalence, Suicidal Ideations, Suicidal Behavior, High School Students, Columbia- Suicide Severity Rating Scale (C-SSRS)*

INTRODUCTION

Background of the Study

According to the World Health Organization Global Estimates, among the people ages 10-29 years old, 27% had committed suicide. 27% of suicides were attempted by adolescents (10-19 years old). (1) Suicide was the second leading cause of death among young people aged 15-29 globally. (2) In the Western Pacific Region, suicide was also the second leading cause of death among young people aged 15-29, eclipsed only by road accidents.

In the Philippine setting, a time-trend study showed that rates of suicide peaked at the age range of 15-24. In a study in 2000, exploring the trend of suicide rates among adolescents and young adults in the United States, it was found out that adolescents 15 to 19 years old had a suicide rate of 8 per 100 000, with no change in trend from 2000 to 2007. However, an increasing trend from 2007 to 2014 was noted with an annual percentage change (APC) of 3.1% followed by a steep uptrend from 2014 to 2017, with an APC of 10.0%. (3) The father of child and adolescent psychiatry in the Philippines, Dr. Cornelio Banaag has sounded the alarm that young Filipinos are in the midst of a mental health crisis. (4)

It is projected by the Philippine Statistics Authority that adolescents (10-19) will comprise 19% of the Philippines by year 2020. (5) Adolescents can be vulnerable since they are in one of the most rapid and formative phases of human development with distinct physical, cognitive, social, emotional and sexual development, simultaneously occurring during this phase, it is also characterized by a widening gap between biological maturity and social transition to adulthood accompanied by an emerging need for autonomy yet still requiring adult supervision and guidance. (6)

In Erik Erikson's Eight Stages of Psychosocial Development he states that adolescents had the task of Identity vs Role Confusion. This is the stage wherein a sense of self is developed by testing roles then integrating these roles to form a sense of identity. Social and environmental factors also play a role, such as bullying, impaired parent-child relationship, living outside of the home, getting out of school, social isolation, romantic difficulties. (6) Therefore, adolescence can also be accompanied by an increased incidence of depression and suicidal behavior. (7)

In light of the increased risk and trend of suicide among adolescents (8) this study aimed to determine the prevalence and severity of suicidal ideations and behaviors among senior high school students using the Columbia-Suicide Severity Rating Scale (C-SSRS) in San Juan National High School, in San Juan, Metro Manila.

METHODOLOGY

Study Design

This is a descriptive cross-sectional school-based study, conducted on 236 senior high school students, 18 to 20 years old, in San Juan National High School (SJNHS) in San Juan, Metro Manila. Permission to conduct the research in SJNHS was granted by the Assistant Schools Division Superintendent.

Sampling

The study employed convenience sampling, recruiting 236 participants from San Juan National High School (SJNHS) in San Juan in Metro Manila, who fulfilled the inclusion and exclusion criteria of the study as follows:

Inclusion criteria: Subjects aged 18 to 20 years enrolled in senior high school in a public secondary school in San Juan, Metro Manila, who expressed willingness and gave consent to participate in the study.

Exclusion criteria: Inability to understand English or Filipino; students with diagnoses of intellectual disability, previously diagnosed with a psychiatric condition or any condition that would preclude a participant from answering the questionnaire.

The minimum required sample size was 216 based on the 17% prevalence of suicidal ideations in the youth (9), a level of confidence of 95% and a margin of error of 5%.

Instrument

Permission was obtained from the Columbia Lighthouse Project to use the Columbia Suicide Severity Rating Scale (C-SSRS) Tagalog version. The translation and linguistic validation to Tagalog was carried out by Fernandez et al. (10)

Training in the use of the C-SSRS was done by watching a prerecorded 20 -minute educational course offered by the Columbia Lighthouse

Project. A certificate of learning was obtained. The CSSRS was designed to provide definitions of suicidal ideation and behavior and non-suicidal self-injurious behavior and corresponding probes; to quantify the full spectrum of suicidal ideation and suicidal behavior and gauge their severity over specified periods. The CSSRS also distinguished suicidal behavior and non-suicidal self-injurious behavior. (11)

The C-SSRS dwells on the four constructs of suicide. The first is on severity, rated on a 5-point ordinal scale wherein 1 = wish to be dead, 2 = non-specific active suicidal thoughts, 3 = suicidal thoughts with methods, 4 = suicidal intent, and 5 = suicidal intent with plan. Second construct is on intensity, which has 5 items that are each rated on a 5- point ordinal scale: frequency, duration, controllability, deterrents and reason for ideation. The third is on behavior, rated on a nominal subscale: actual, aborted, interrupted, preparatory behavior and non-suicidal injurious behavior. The fourth is the lethality subscale, which assesses actual attempts; actual lethality rated on a 6-point ordinal scale, and if actual lethality is zero, potential lethality is rated on a 3-point ordinal scale. The assessment of lethality is done by the assessor. (11)

As for the validity and reliability, in a study by Posner et al (11), the internal consistency of the intensity subscale was high, with a Cronbach's alpha of 0.937 for the last visit and 0.946 for the past week. In the C-SSRS compilation of supporting evidence, a study of the psychometric properties of the CSSRS (12), the inter-rater reliability for the most severe ideation scores in the last month and lifetime were good (Lifetime Cohen's kappa at 0.91 and recent Cohen's kappa at 0.76). (13)

Data Collection

Due to the large sample size needed for senior high school students, and the proximity of SJNHS, it was chosen to be the school where the study was conducted. The setting for administering the questionnaires was in their classrooms during their vacant periods in the afternoon. Students who were present in certain classrooms were chosen as participants, and once with their consent, they were given a brief backgrounder on what the study was and what it aimed to find out.

They were given instructions on how to answer the C-SSRS. Participants were then screened using the inclusion and exclusion criteria cited above. Upon selection, consent from the participants was obtained for the study. Thereafter, the researcher administered the CSRSS to the students with advanced coordination with the principal and teachers of SJNHS. A room for the one -on- one data collection was provided and the administration took only about 3 – 5 minutes per subject. Demographic information: such as age, sex, and educational attainment were obtained. Names and Contact details were taken for appropriate referral to the OPD telepsychiatry service for those who scored high on the severity of suicide risk.

Statistical Analysis

Suicidal ideation was separated into a 5 -point ordinal severity scale in which 1=wish to be dead, 2=nonspecific active suicidal thoughts, 3=suicidal thoughts with methods, 4=suicidal intent, and 5=suicidal intent with plan. Previous studies predicting suicide attempts showed that severity increased relative to method, intent, and plan, respectively. (11) For the intensity of suicidal ideation, a 5 -point ordinal severity scale was used. The suicide risk was greater when thoughts were more frequent, of longer duration, less controllable, fewer deterrents and if stopping the pain was the reason. (14)

For suicidal behaviors, interrupted attempts, aborted attempts and preparatory behavior were equally predictive of an attempt, and those with multiple behaviors had greater risk. Non-suicidal self -injury was associated with suicidal thoughts that also increased the risk for suicide. (15) For the lethality, suicidal intent correlated highly with medical lethality when the attempter had sufficient knowledge to assess properly the probable outcome of his/her attempt.

Descriptive measures such as frequencies and proportions were applied for all the data obtained in the research.

This study was limited since it was administered in only one national high school, hence no generalizations were made on the findings of this study. The study was also limited by the age group since most of the participants were mostly in their late adolescence.

Ethical Considerations

The study protocol was reviewed and approved by the Research Institute of Health Science (RIHS) Ethics Review Committee of the University of the East – Ramon Magsaysay Memorial Medical Center Inc. (UERMMCI) in Quezon City.

Informed consent was obtained for all participants to be included in this study. They were allowed to withdraw from the study at any point in time if they preferred to do so. A brief background and explanation of the purpose of the study was done to ensure that they were able to understand the objectives of the research. The risk and benefits of participation were also explained. The researcher had no conflict of interest in conducting this study.

The participants of this study were assured of anonymity in accordance with the Data Privacy Act provisions. (16) Their personal and interview data were kept in a private safe in the office of the researcher and only the researcher could gain access to their data for further analysis. The researcher also considered the stigma attached to mental health conditions and the impact it could have in the community thus the data privacy of the participants were safely guarded.

The duration of the participants involvement in the study lasted up until the CSSRS had been administered and the informed consent duly signed, this lasted about 3-5 minutes.

Possible risks that may be experienced while undergoing this research may include a recollection of stressors that led to the subject having suicidal ideations. Should a patient be noted to have severe suicidality in terms of ideations and behaviors, he/she was referred to the Telepsychiatry Outpatient Department (OPD) for further assessment and management. It was also explained that there would be a corresponding fee of 150 PhP for an online OPD consult. No actively distressed participants were encountered during the administration of the survey. Participants who had mild distress due to remembering their previous suicidal attempts were asked to do deep breathing exercises and their expressed feelings and emotions were supported, acknowledged and validated. The option of going through further consult was also given.

Follow up assessment of suicide severity was done using the CSSRS.

There were no monetary costs in participating in this study. Likewise, no monetary nor material benefits were gained in participating. The only benefit that the participants received was to get an earlier referral to a psychiatrist if they had suicidal ideations or behaviors. The findings from this study will be shared with SJNHS.

RESULTS

A total of 236 senior high school students grade11 and 12, aged 18-19 years old consented to participate and were administered the Columbia Suicide Severity Rating Scale. The majority were 18 -year -olds but grade level and sex were more or less evenly distributed. (Table 1)

Seventy -four patients out of 236 (31.36%) wished to be dead but an even higher number of respondents at 86 (36.44%) answered that they had had non-specific active suicidal ideation i.e. they had thoughts of wanting to end their life but had not thought of a specific plan yet. For this part of the questionnaire, the structure of the CSSRS gives the patients a chance to answer numbers 3,4 and 5 only if they answer question 1 and 2 with yes; respondents may have multiple responses. (Table 2)

Table 1. Demographic Profile of Respondents (N = 236)

Age	#	%
18	202	85.59
19	34	14.41
Sex		
Male	110	46.61
Female	126	53.39
Grade		
11	138	58.47
12	98	41.52

Table 2. Description of Suicidal Ideations (N=236)

SUICIDAL IDEATIONS	#	%
1. Wish to be Dead	74	31.36
2. Non-Specific Active Suicidal Ideation	86	36.44
3. Active Suicidal Ideation with Any Methods (Not Plan) With Intent to Act	44	18.64
4. Active Suicidal Ideation with Some Intent to Act, without Specific Plan	45	19.07
5. Active Suicidal Ideation with Specific Plan and Intent	33	13.98

Those who answered yes to 1 or 2 or 3, 4 and 5 questions in the suicidal ideations get to answer the intensity of suicidal ideations subscale that follows. Due to these multiple options of answering provided by the CSSRS, the intensity subscale as well as the other subscales may not show a consistent tally with the total number of 236 respondents. (Table 3)

There were 109 who admitted to having suicidal ideation. For the intensity of suicidal ideation, responses on the subscale of frequency of suicidal ideations, 44 respondents (18.64%) had suicidal thoughts once a week and 40 (16.95%) had suicidal thoughts less than once a week. In the duration subscale, 47 (19.92%) noted they had fleeting thoughts of suicide, lasting a few seconds or minutes and 26 (11.02%) said that the suicidal thoughts lasted less than an hour. On the controllability subscale, majority at 44 (18.64%) said they were easily able to control thoughts, 33 (13.98%) said they were able to control their thoughts with little difficulty. For the deterrents, i.e. anyone or anything that has stopped the respondent from wanting to die or carrying out the suicidal thoughts, 63 or 26.69% said that deterrents definitely stopped them from committing suicide. When it came to the reasons for the suicidal ideation, there was a similar proportion of those who said they were merely trying to get attention, revenge or a reaction from others (25 or 10.59%), and those who answered that it was to end or stop the pain 26 (11.01%). The mean scores are displayed to show the average of the group responses. (Table 3)

For the suicidal behaviors, the more common description was that their suicidal attempt was aborted (19.07%) i.e. they had planned to carry out the suicidal act, but stopped it themselves; while 16.53% had their attempts interrupted. Interrupted suicide attempts occur when individuals initiate action to end their lives but are stopped by someone or something external to the individual before actually carrying out the act. Aborted suicide attempts occur when individuals start to do something to try to end their lives but stop themselves before actually harming themselves. The average number of attempts for the 36 respondents was 2 but with a range of 1-3 times. Those who did manifest suicidal behaviors could have several types and thus account for the multiple responses. (11) (Table 4)

Table 3. Intensity of Suicidal Ideation (n=109)

Frequency	**#**	**%**
1. Less than once a week	40	16.95
2. Once a week	44	18.64
3. 2-5 times a week	15	6.35
4. Daily or almost daily	6	2.54
5. Many times each day	4	1.69
	109	
Mean Score: 2 i.e. once a week		
Duration		
1. Fleeting - few seconds or minutes	47	19.92
2. <1 hr/day or some of the time	26	11.02
3. 1-4 hrs/day / a lot of time	18	7.63
4. 4-8 hrs/day / most of the day	11	4.66
5. >8 hrs/day / persistent or continuous	7	2.97
	109	
Mean Score: 2.12 i.e.<1 1hr/day		
Control		
1. Easily able to control thoughts	44	18.64
2. Can control thoughts with little difficulty	33	13.98
3. Can control thoughts with some difficulty	11	4.66
4. Can control thoughts with a lot of difficulty	17	7.20
5. Unable to control thoughts	4	1.69
6. Does not attempt to control thoughts	0	0
	109	
Mean Score: 2.11		
Deterrents		
1. Deterrents definitely stopped you from attempting suicide	63	26.69
2. Deterrents probably stopped you	23	9.75
3. Uncertain that deterrents stopped you	7	2.97
4. Deterrents most likely did not stop you	2	0.85
5. Deterrents definitely did not stop you	2	0.85
6. Does not apply	12	5.08
	109	
Mean Score: 2.01		
Reasons for Ideation		

Frequency	**#**	**%**
1. Less than once a week	40	16.95
2. Once a week	44	18.64
3. 2-5 times a week	15	6.35
4. Daily or almost daily	6	2.54
5. Many times each day	4	1.69
	109	
Mean Score: 2 i.e. once a week		
Duration		
1. Fleeting - few seconds or minutes	47	19.92
2. <1 hr/day or some of the time	26	11.02
3. 1-4 hrs/day / a lot of time	18	7.63
4. 4-8 hrs/day / most of the day	11	4.66
1. Completely to get attention, revenge or a reaction from others	25	10.59
2. Mostly to get attention, revenge or a reaction from others	7	2.97
3. Equally to get attention, revenge or a reaction from others and to end/stop the pain	19	8.05
4. Mostly to end or stop the pain (you couldn't go on living with the pain or how you were feeling)	26	11.02
5. Completely to end or stop the pain (you couldn't go on living with the pain or how you were feeling).	18	7.63
6. Does not apply	14	5.93
	109	

For the suicidal behaviors, the more common description was that their suicidal attempt was aborted (19.07%) i.e. they had planned to carry out the suicidal act, but stopped it themselves; while 16.53% had their attempts interrupted. Interrupted suicide attempts occur when individuals initiate action to end their lives but are stopped by someone or something external to the individual before actually carrying out the act. Aborted suicide attempts occur when individuals start to do something to try to end their lives but stop themselves before actually harming themselves. The average number of attempts for the 36 respondents was 2 but with a range of 1-3 times. Those who did manifest suicidal behaviors could have several types and thus account for the multiple responses. (11) (Table 4)

Table 4. Description of Suicidal Behaviors (N=236)

SUICIDAL BEHAVIORS	N	%
Actual Attempt	36	15.25
Non-Suicidal Self-Injurious Behavior	37	15.68
Interrupted Attempt	39	16.53
Aborted Attempt	45	19.07
Preparatory Acts or Behavior	12	5.08
Suicidal Behavior During Time of Assessment	0	0

Of the 36 respondents who said they had actual suicide attempts, 18 respondents reported suffering only minor physical injury. Minor physical injury was defined as having sustained injury to the body but not needing medical attention. (Table 5)

Table 5. Description of Actual Attempts (n = 36)

FOR ACTUAL ATTEMPTS	#	%
Actual Lethality		
No physical injury	15	41.67
Minor physical injury	18	50.00
Moderately severe physical injury	3	8.33
Severe physical injury	0	0
Death	0	0
Total	**36**	**100**
Potential Lethality		
Behavior not likely to result in injury	3	8.33
Behavior likely to result in injury but not likely to cause death	32	88.89
Behavior likely to result in death despite available medical care	1	2.78
Total	**36**	**100**

DISCUSSION

Suicidal Ideation

In this study the prevalence of suicidal ideation severity was at 36.44%, which was described as nonspecific active suicidal thoughts. This was higher compared to the 17% suicidal ideation prevalence rate taken from the Youth Risk Behavior Survey (YRBS). (9) The YRBS was administered yearly by the Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health (DASH), which routinely monitored adolescent health behaviors and experiences; and collaborates with education agencies in the United States to provide the most recent surveillance data on health behaviors and experiences among high school students across the country, among these are mental health and suicide.

The prevalence of suicidal ideation was also in stark contrast to local data on suicidal ideation as collected in the 2013 Young Adult Fertility and Sexuality Survey 4 (YAFS 4). (17) The YAFS 4 is a series of surveys about young adults aged 15 to 24, which tracked some core indicators of youth status, well-being, risk and non-risk behaviors and other outcomes and the determinants of such outcomes. The YAFS 4 survey put the national prevalence of suicidal ideation at 8.7%. The large disparity of this research's results with that of other surveys may be due to the fact that the C-SSRS referred to a whole life time, while the YRBS only asked about the past 12 months and the YAFS 4 was unclear regarding its time frame.

On the other hand, this relatively high prevalence of suicidal ideation was consistent with a study by Estrada et al (18), wherein they used the CSSRS to document suicidal ideation and behaviors among adolescent learners enrolled in the Alternative Learning System (ALS) in Manila, Philippines. They showed that the lifetime prevalence of suicidal ideation – the wish to be dead and non-specific active suicidal thoughts were at 40.4% and 40.9% respectively, which were approximated the numbers in this study. The high prevalence of suicidal ideation, using the CSSRS may be heralding an upward trend in suicidal ideation, yet may be overlooked and undetected due to lack of a standardized method of inquiring regarding suicide.

This high prevalence rate may reflect the higher suicide attempts among adolescents and young adults. It may also be indicative of changing sociocultural attitudes towards suicide i.e. that the government has mandated a National Suicide Prevention Strategy of the Department of Health in partnership with the WHO. (19)

This includes a multisectoral approach to mental health that has set up programs and interventions in schools.

Usage of social media has become a primary forum for interpersonal engagement among teens, which is a period when social contact is important in maintaining their well-being but at the same time may have a negative influence when exposed to other cultures and suicidality. Another key feature of social media is the amount of time adolescents spend engaged with it and the fact that it makes social contact available almost without limits. (20)

The rise in suicide rages parallels the rise of social media usage. The percentage of American adults who used social media increased from 5% in 2005 to 79% in 2019. (21) This steep rise in social media use is fairly recent and may have just been unfolding when the YAFS 4 was conducted in 2013. (17) Thus, this increased prevalence may be heralding an uptrend in suicidal ideation and behaviors in adolescents.

The other items (Items 3, 4 and 5) on the severity ordinal scale of suicidal ideations highlight the importance of asking not just about ideation, but also about ideation relative to method, intent and plan. These need to be asked for these other items were based on previous studies predicting suicide attempts. Asking about these other items could also be important in reducing access to means, an area of strategic action proposed by the WHO for suicide prevention. (19)

Intensity of Ideation

The intensity of ideation subscale, comprises 5 items, each rated on a 5-point ordinal scale: frequency, duration, controllability, deterrents, and reason for ideation. The intensity subscale scores were significant predictors of suicide attempts at return psychiatric emergency (PE) visits across the 1-year study period for predictors of suicide attempts among adolescents in psychiatric emergency (PE) settings in a study by Gipson et al (22). These five variables examined independently resulted in the duration item being the only significant independent predictor of return PE visits or suicide attempts at return visit. For this research, the mean duration score was at 2.12 (<1 hr/day) compared to 2.32 for the study by Gipson et al (22).

For the frequency subscale, the mean score was 2 (once a week). In this light, a promising development has turned up with Chang et al. (23) who developed a Frequency of Suicidal Ideation Inventory (FSII). Frequency of suicidal thoughts in participants over the past year were measured using a 5-point Likert-type scale, ranging from 1 (never) to 5 (almost every day). Higher scores on the FSII were indicative of greater suicidal ideation (SI) frequency. This could be used in future studies wherein a reliable and validated tool for measuring the impact of the frequency of suicidal ideations may be required.

For the deterrents subscale, 26.69% answered that deterrents definitely stopped them. This relatively high rate of suicide attempts that have been deterred, highlights that suicide risk is often short term and situation specific, and therefore preventable. The examples of deterrents listed in the CSSRS were family, fear of pain and religion, which could be expected considering the Philippines is a predominantly Catholic or Christian nation.

In a recent review by Lawrence et al (24), they found that many studies indicated that religious affiliation was protective against suicide attempts and suicide, but not suicidal ideation. Torgler and Schaltegger found that in the 20-year period (1981–2001) in Switzerland, a strong negative correlation between Catholicism and the number of suicides per capita was noted. (25)

In terms of sex, 58 (68%) of those who had suicidal ideations in this study were females. Thus, the role of gender may also play a role in the higher prevalence of suicidal ideations, as demonstrated by Lie et al. who showed that Female Filipino junior high school students showed higher suicidal ideations. (26)

Suicidal Behaviors

A history of suicide attempts was regarded as one of the strongest predictors of future suicide according to Suominen et al. (27) This study's prevalence rate of 15.25% was similar compared to the local study using the CSSRS by Estrada et al. (18), which showed that the prevalence of suicide attempts was12.9% but was higher when compared with the YRBS, which found that the prevalence of suicide attempts was 7.4% (9) and that of the YAFS 4 local data that reported a prevalence of 3.2%. (17)

The stark difference in rates of the C-SSRS vis a vis the YRBS and YAFS 4 may be due to a more elaborated, and specified way of asking about suicide attempt. An actual attempt was defined in the CSSRS to be a potentially self-injurious act committed with at least some wish to die, as a result of the act. Behavior was in part thought of as method to kill oneself. Intent does not have to be 100%. If there is any intent/desire to die associated with the act, then it can be considered an actual suicide attempt. There does not have to be any injury or harm, just the potential for injury or harm. For example, if person pulls the trigger while a gun is in his/ her mouth but the gun broke without any resulting injury, this would be considered an attempt.

The prevalence of Non-Suicidal Self Injury (NSSI) was 15.68% was relatively lower compared to the 20% prevalence of NSSI described by Masana et al. in their local study with college students examining the relationship of adverse childhood experiences, NSSI and pathological personality traits. (28)

In a study by Cyzy et al (29), NSSI was noted to be a means of coping with suicidal thoughts and considered to be a particularly high-risk group in need of more intensive support.

The proportion of interrupted (16.53%) and aborted suicide attempts (19.07%) of this study were surprisingly higher than the actual suicide attempts (15.25%). Compared to the findings with Estrada et al., they found the prevalence of interrupted attempts to be at 6.4% and for aborted attempts to be at 16.4%. (18)

Examining the associations between interrupted, aborted, and actual suicide attempts among adolescent inpatients, Burke et al (30), found that both interrupted attempts and aborted attempts were significantly associated with the frequency of actual attempts after co-varying for suicidal ideation and demographic characteristics. These results suggested that a failure to integrate interrupted and aborted attempts into suicide risk assessments may result in underestimating adolescent suicide risk.

Twelve (5.08%) of the 236 respondents had preparatory behavior. In a study by Mundt et al (31) wherein C-SSRS was administered to depressed subjects, interrupted attempts, aborted attempts and preparatory behavior were equally predictive of actual attempts, and those with multiple behaviors had greater risk.

In a retrospective study by Mckean et al wherein they reviewed first suicide attempt outcomes. They found that despite composing only 31.7% of the cohort, male subjects composed most completed suicides. (32)

CONCLUSION AND RECOMMENDATIONS

For the respondents of this particular National High School, about one third (36.44%) had non - specific suicidal ideations and only 13.98% had active suicidal ideas with intent to carry out a suicidal plan coupled with 15.25% of actual suicide attempts; both of which are higher than international data. The severity of the ideations and behavior on the other hand were not as alarming since majority of the ideations were low in frequency and duration while high in controllability. The suicidal behaviors on the other hand mostly resulted in minor physical injury. In light of these relatively high prevalence rates, school-wide intervention on education or awareness programs, gatekeeper training, peer leadership, skills training and screening or assessment should be instituted to curb the suicide risk of senior high school students.

In a systematic review by Surgenor et al (33), they identified key issues with the said school-wide interventions. In this light, they had ten recommendations, which would also be the recommendations for this school and other schools in the Philippines: 1) employ longer term strategies; 2) be aware of contextual factors, in which suicide prevention programs are delivered; 3) clearly define learning outcomes when it comes to suicide prevention programs; 4) start with a preparatory phase; 5) create a flexible design and delivery, 6) tap external expert facilitators instead of staff; 8) Not to be restrictive; 9) Not to overemphasize risk factors; 10) implement a varied, interactive and engaging manner of delivery; and lastly 10) re-evaluate programs regularly.

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