### RESEARCH ARTICLE

# Health literacy on depression and suicidal behavior among public secondary teachers in Manila

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#### **ABSTRACT**

**Background and Objectives:** The daily interactions of teachers with students allow the former to observe behavioral changes in the latter. This can serve as an opportunity to emphasize teachers' role in mental health interventions in the school setting. This study aimed to provide baseline information regarding high school teachers' mental health literacy specifically on the recognition and referral of students with depression and suicidal behavior.

**Methodology:** The study design was descriptive cross-sectional that included 460 high school teachers from a district in the City of Manila. The modified QualisMental Vignette Scale for depression literacy and Adolescent Suicide Behavior Questionnaire for suicide literacy was adapted as assessment tools.

**Results and Conclusion:** Results of the study found that 64% correctly identified depression as a mental health problem in the modified case vignette. The highest proportion of respondents chose 'informing the parents' as their preferred mode of referral system. The teachers had varying levels of knowledge on suicidal behaviors. More mental health literacy interventions focusing on depression and suicide must be conducted among teachers to improve their competency on these topics.

**Keywords:** mental health literacy, teachers, depression, suicidal ideation, mental health

#### Introduction

Mental health literacy (MHL) is the "knowledge and beliefs about mental disorders which aid their recognition, management, or prevention." It includes recognition of various types of disorders, knowledge, and beliefs about risk factors and causes. Moreover, it also involves self-help interventions and seeking professional help when available[1]. With a vast spectrum of mental disorders identified in the clinical setting, depression and suicide need the most urgent attention.

Considered a notable contributor to the overall burden of disease, depression is a mental health disorder affecting 300 million people worldwide [2,3]. Signs and symptoms of depression include persistent sadness, feelings of hopelessness, or pessimism, irritability, feelings of guilt, worthlessness, or

helplessness, loss of interest in hobbies, and at worst, thoughts of death or suicide or attempted suicide, experienced for at least two weeks [3].

Suicidal ideations, on the other hand, pertain to thoughts of serving as a catalyst of one's own death while suicide attempts are self-directed and potentially injurious behavior leading to a non-fatal outcome [4]. Lastly, suicide is death due to self-harm with the individual's intent to die [4]. Around 800,000 people die due to suicide each year; being the second leading cause of death within the 15 to 29-year-old age group globally [2]. In the year 2015, 5.8 males and 1.9 females for every 100,000 persons died due to suicide in the Philippines [5].

Approximately, nine out of ten individuals who died of suicide have had a psychiatric disorder at the time of their death

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[6,7]. Depression, together with substance abuse, is the most common mental disorders among these people [7]. Reducing risk factors such as the presence and severity of depression, while increasing the protective factors such as strong social connections, are the main goals in preventing suicide [4]. Thus, prevention strategies should address all levels of influence: individual, relationship, community, and societal [4].

Since students spend most of their time in school, teachers can play a big role in the early identification, referral of cases when needed, and prevention of suicide among students. A student's social, emotional, and mental welfare can affect his or her academic success, hence, schools should also give importance to students' mental health along with teaching academics [8]. Several studies have found that teachers have a key role in recognizing early manifestations of psychosis among junior and senior high school (HS) students. Moreover, teachers can be tapped in the frontline of mental health service for their students as the latter spend most of their time under the former's oversight and care [8]. The Department of Education (DepEd) Order No. 14 s 2020 highlights the importance of providing mental health and psychosocial services to strengthen the mental resilience of learners and personnel [39]. This was supplemented by DepEd Memorandum No. 74 s 2021 ordering the inclusion and promotion of mental health in all DepEd Events and Programs [40]. Teachers' mental health literacy is very important in the implementation of these policies. Knowing that the association between depression and suicidal behaviors can be identified in the school setting emphasizes the critical role of educators, more specifically the secondary school teachers, in detecting youths at risk of depression and suicide [9]. Their daily contact and interaction with the students allow them to observe behavioral changes and potentially recognize those who are at risk of depression and suicide. Early recognition of their signs and symptoms and knowledge of the referral system are essential in avoiding suicide ideations and attempts. However, in cases where there are already suicidal ideations and attempts, prompt recognition and management are essential to avoid the rise of deaths due to suicide. Teachers can assist students who are experiencing mental health disorders and participate in the intervention and management process [10]. Thus, this study aimed to assess mental health literacy, particularly on recognition and referral of students with signs and symptoms of depression and suicidal behaviors, of public high school teachers in Manila. Specifically, it determined the knowledge of the teachers on recognition of students with signs and symptoms of depression and suicidal behaviors, referral of HS students with signs and symptoms of depression and suicidal

behaviors, risk factors, precipitating factors, prevention, and treatment of suicidal behaviors. It also aimed to determine the proportion of teachers who can recognize the common signs and symptoms of depression and suicidal behaviors among HS students.

## Methodology

#### Research Design

The research design is a descriptive cross-sectional study to assess the mental health literacy of high school teachers, particularly on the recognition and referral of students with depression and suicidal ideations. The study employed a stratified random sampling design with high schools of the chosen district used as a stratum.

#### Study Site

The study was done in six public secondary schools in a district in Manila City, Philippines. Based on the Young Adult Fertility and Sexuality Study (YAFS) survey in 2013, the National Capital Region (NCR) had the highest number of youth suicide attempts and the second highest number of youth suicide ideations [11]. One district which had the highest number of teachers and the largest population of students was purposely selected.

#### Study Population

The study participants were registered and currently employed teachers of six public schools from the chosen district in the City of Manila. A sample size of at least 384 participants was needed given a 95% level of confidence and a 5% margin of error. Moreover, to compensate for non-participation and non-response, an additional 50% of the sample population was added, which yielded a sample of 575 study participants. This was computed through an estimation of population proportion with a specified absolute precision. Of the 575 study participants, only 460 agreed to participate and completed the questionnaires.

#### Data Method Collection and Instrument

The first section of the self-administered questionnaire consisted of questions on the socio-demographic characteristics of the study participants. Moreover, the study adapted two tools with permission and modified them to fit the Philippine setting. For the self-administered questionnaire, pilot testing was conducted in two other high schools from a different district in Manila. This was done for instruction



clarity, question comprehensibility, and cultural sensitivity of 104 statements to fit the Philippine setting. The validity of the questionnaire was assessed by the members of the study team with experts on mental health and questionnaire construction. Because of the pilot testing done for the QualisMental tool, the researchers decided to omit some of the questions not fit for the study population. The five questions included in the QualisMental tool, namely, recognition of disorders, knowledge about the professionals and treatments available, knowledge on effectiveness of selfhelp strategies, knowledge and skills needed to provide support and first aid to others, and knowledge on how to prevent mental disorders, were reduced to the first two questions to satisfy the objectives of the study. The researchers consulted with their adviser on revising and translating the QualisMental tool to be more appropriate for the study population and to be more suitable to the Philippine setting. The first tool was QualisMental [12], which was an adapted validated vignette scale. The modified version contained only two questions, rather than the original five questions, which were deemed more appropriate for the objectives of the study. For this study, components recognition of disorders and knowledge about professionals and treatments available were adopted. The second tool was the Adolescent Suicide Behavior Questionnaire (ABSQ) developed by David Smith and Kylie Scoullar [9], the modified version of the tool consisted of 33 statements (S), rather than the original 39, which aimed to determine the knowledge of respondents about adolescent suicide across four content domains vital in understanding suicidal behavior: (1) precipitating factors (S18-S21), (2) warning signs (S22-S28), (3) prevention and treatment (S29-S36), and (4) risk factors, which were further divided into familial and environmental factors (S1-S8), presence of psychiatric disorders (S9-S12), cognitive factors (S13-S14, S17), and prior suicidal attempts (S15-S16)[9]. Moreover, the Likert Scale used for the questionnaire was replaced with "True", "False", or "I don't know" statements. During the pretesting of the self-administered questionnaire, a mock survey and FGD were employed. The ASBQ, initially adapted as Likert scale, was modified to "True", "False" or "I do not know" to adhere to the objectives of the study. The level of agreement or disagreement among the study participants was not deemed significant by the researchers. Those who answered the last option were counted as incorrect answers. The ASBQ, originally composed of 39 statements, was reduced to 33 statements upon pretesting. Furthermore, certain statements from the demographics domain of the original questionnaire were removed since this domain was not included in the objectives of the study. Additional statements on the referral of high school students with suicidal behaviors

were lifted from the American Psychological Association (APA) which were also added to the questionnaire.

The study has been approved through expedited review by the UP Manila Research Ethics Board under the protocol code UPM REB 2017-510-UND as of April 2018.

#### Results

Demographic Characteristics

A total of 460 respondents participated in the study. The majority of the respondents were females (n = 331) and the ages ranged from 20 to 64 years old (39.74  $\pm$  11.77). Almost a third (29.57%) taught Grade 7 students and a quarter (23.91%) had 1-5 years of teaching experience. The highest proportions taught science (15.43%) and math (14.47%).

Almost half (49.57%) of the respondents have not attended mental health workshops, seminars, and talks. Also, half (51.52%) have encountered a student with a mental health problem.

Knowledge on Recognition of Students with Signs and Symptoms of Depression When asked the question "What do you think is wrong with Juan?" using the case vignette tool, about two-thirds of the respondents correctly recognized depression as a present mental health problem (64.13%, 95% CI: 59.75% - 68.51%) (Table 1).

Knowledge on Referral of Students with Signs and Symptoms of Depression

The participating teachers were then asked about the most appropriate action to do with Juan, the fictional character of the vignette. The majority of the respondents (57.61%) recommended informing Juan's parents of their son's condition, while 20.87% said that they will refer Juan to the school's guidance counselor. Only 6.52% correctly identified seeking a mental health professional for help. Other informal strategies were also answered such as encouraging Juan to participate in class (4.35%) and personally talking to Juan (3.48%). Three teachers (0.65%) answered that they do not know what to do with Juan, while one (0.22%) answered that he/she will let Juan be (Table 1).

Knowledge on Risk Factors of Suicidal Behaviors

Table 2 shows the statements which pertain to risk factors for depression. The top three statements, which garnered the highest proportion of correct answers, were



**Table 1.** Frequency and Percentage Distribution of Participating Teachers According to their Demographic Characteristics (n = 460).

Categories	n	%
Age		
20-29 30-39 40-49 50-59 60 and above No response	119 106 108 88 20 19	25.87% 23.04% 23.48% 19.13% 4.35% 4.13%
Sex		
Male Female No response	116 331 13	25.22% 71.96% 2.83%
Years of Teaching		
Less than a year 1-5 6-10 11- 15 16-20 21-25 26-30 31-35 36-40 No response	10 110 79 56 59 43 32 31 17 23	2.17% 23.91% 17.17% 12.17% 12.83% 9.35% 6.96% 6.74% 3.70% 5.00%
Year Levels Being Taught		
Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12 No response	136 127 129 116 34 31 26	29.57% 27.61% 28.04% 25.22% 7.65% 6.73% 5.22%
Subjects Being Taught		
Science Mathematics English MAPEH Technology and Livelihood Education (TLE) Filipino Home Economics Social Studies (Araling Panlipunan) Values Education (Edukasyon sa Pagpapakatao) History Research Economics No response	71 67 56 53 51 45 35 35 23 8 4 3	15.43% 14.57% 12.17% 11.52% 11.09% 9.78% 7.61% 5.00% 1.74% 0.87% 0.65% 2.61%

under the subdomains of cognitive factors (86.96%), familial and social environment (83.70%), and psychiatric disorders (79.78%). Furthermore, the statements which had the lowest proportion of correct answers were under the subdomains of prior attempt (41.30%), psychiatric disorders (22.83%), and familial and social environment (18.04%).

Knowledge on Precipitating Factors of Suicidal Behavior

Almost two-thirds (62.83%) of the respondents recognized that parental conflict is a common precipitant of a suicide attempt (S20). Moreover, 53.26% consider personal loss (S18) as a trigger in attempting suicide among the youth. However,



**Table 2.** Distribution of Participating Teachers According to their Knowledge on Recognition and Referral of a Student (depicted as Juan in the case vignette) with Signs and Symptoms of Depression (n = 460).

roblem with Juan	n	%
Depression	295	64.13%
Schizophrenia	62	13.48%
Stress	48	10.43%
don't know	20	4.35%
ullied	7	1.52%
entity crisis	4	0.87%
ubstance abuse	2	0.43%
ervous breakdown	2	0.43%
othing is wrong	1	0.22%
o answer	4	0.87%
fultiple answers	15	3.26%
owledge on Referral	n	%
	n 266	% 57.83
will inform Juan's parents about his condition.		
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school.	266	57.83
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist).	266 96	57.83 20.87
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class.	266 96 30	57.83 20.87 6.52%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher.	266 96 30 20	57.83 20.87 6.52% 4.35%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher. have no idea what to do.	266 96 30 20 5	57.83 20.87 6.52% 4.35% 1.30%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher. have no idea what to do. will let Juan be and will not meddle with his life.	266 96 30 20 5	57.83 20.87 6.52% 4.35% 1.30% 0.65%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher. have no idea what to do. will let Juan be and will not meddle with his life. will talk to Juan. *	266 96 30 20 5 3	57.83 20.87 6.52% 4.35% 1.30% 0.65% 0.22%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher. have no idea what to do. will let Juan be and will not meddle with his life. will talk to Juan. * will talk to Juan and see his parents. *	266 96 30 20 5 3 1 16 4	57.83 20.87 6.52% 4.35% 1.30% 0.65% 0.22% 3.48%
will inform Juan's parents about his condition. will refer Juan to a guidance counselor in the school. will tell Juan to see a mental health professional (e.g. psychiatrist,psychologist). will encourage Juan to participate in class. will address or share the concern with another teacher. have no idea what to do. will let Juan be and will not meddle with his life. will talk to Juan.* will talk to Juan and see his parents. * will talk to Juan and refer him to the guidance counselor. * Jo answer	266 96 30 20 5 3 1 16 4	57.83 20.87 6.52% 4.35% 1.30% 0.65% 0.22% 3.48% 0.86%

<sup>\*</sup> Informal strategies that do not involve health professionals.

**Table 3a.** Frequency and Percentage of Correct Teacher Responses According to their Knowledge Regarding Risk Factors of Suicidal Behaviors (n = 460).

Statement		Correct Teacher Responses	
	n	%	
(S13) The more hopeless adolescents feel, the more likely they are to commit suicide.	400	86.96%	
(S2) Lack of social support significantly increases the risk of an adolescent committing suicide.	385	83.70%	
(S9) A young person who is very depressed is more likely to commit suicide than any other young person.	367	79.80%	
(S7) Family breakdown and conflict are common among adolescents who attempt or complete suicide.	338	73.48%	
(S5) Adolescents who attempt suicide are more likely than others to have been physically and/or sexually abused.	335	72.83%	
(S15) The more threatening (lethal) a suicide attempt has been, the higher the risk that an individual will subsequently complete suicide.	305	66.30%	
(S17) Only suicidal adolescents think about committing suicide. *	285	61.96%	
(S6) Adolescents with a family history of suicidal behavior are more at risk for suicide than other adolescents.	281	61.09%	
(S12) Alcohol or drug abuse is a major risk factor for adolescent suicide.	244	53.04%	
(S4) Adolescents who attempt suicide have commonly lost or been separated from a family member.	241	52.39%	
(S14) Suicidal and non-suicidal adolescents do not differ in their problem-solving abilities. *	232	50.43%	
(S10) The majority of adolescents who commit suicide have a psychiatric disorder.	218	47.39%	
(S1) Adolescents who attempt suicide are more likely to come from families with a history of drug or alcohol abuse than are non-suicidal adolescents.	217	47.17%	
(S16) Young people who complete suicide have not commonly made a previous attempt. *	190	41.30%	
(S11) Most suicidal people are out of contact with reality. *	105	22.83%	
(S8) Gay and lesbian adolescents are at higher risk of attempting suicide than are heterosexual adolescents.	83	18.04%	

<sup>\*</sup> False statements. All other statements can be read as true.



**Table 3b.** Frequency and Percentage of Correct Teacher Responses According to their Knowledge Regarding Precipitating Factors of Suicidal Behaviors (n = 460).

Statement	<b>Correct Teacher Responses</b>	
	n	%
(S20) Parental conflict is a common precipitant of a suicide attempt.	289	62.83%
(S18) A significant personal loss (e.g. the death of a close friend) can trigger a young person to attempt suicide.	245	53.26%
(S19) Relationship break-ups are common in adolescence and therefore will not prompt suicide. *	222	48.26%
(S21) A young person can be prompted to commit suicide by hearing about somebody else who has committed suicide.	127	27.61%

<sup>\*</sup> False statements. All other statements can be read as true.

**Table 3c.** Frequency and Percentage of Correct Teacher Responses According to their Knowledge Regarding Warning Signs of Suicidal Behaviors, Manila, March 2018 (n = 460)

Statement		Correct Teacher Responses	
	n	%	
(S26) Adolescents who are thinking about suicide usually tell their parents rather than their friends. *	380	82.61%	
(S25) An improvement in the mood of a young person who has threatened suicide means that the danger is over. *	284	61.74%	
(S23) Adolescents who talk about suicide won't commit suicide. *	228	49.57%	
(S28) Not all suicide threats or statements should be considered warning signs of high suicide risk. *	203	44.13%	
(S27) Most young people who commit suicide have given a warning of their intent.	191	41.52%	
(S22) Sudden and extreme changes in eating or sleeping habits, losing or gaining weight, can warn of imminent suicide.	169	36.74%	
(S24) Although giving away prized possessions is a warning sign for suicide, it is not a significant one.	151	32.83%	

<sup>\*</sup> False statements. All other statements can be read as true.

**Table 3d.** Frequency and Percentage of Correct Teacher Responses According to their Knowledge Regarding Prevention and Treatment of Suicidal Behaviors (n = 460).

Statement		Correct Teacher Responses	
	n	%	
(S35) Psychotherapy is an important component in the management of suicidal ideations and behaviors.	396	86.09%	
(S34) Intervention to address the acute suicidal crisis of students is to keep them safe until the suicidal state diminishes.	375	81.52%	
(S32) School teachers can reduce adolescent suicide contemplations by being able to identify students who are at risk of suicide.	370	80.43%	
(S33) School teachers should refer students with suicidal behaviors to a psychiatrist for treatment.	351	76.30%	
(S30) Discussing suicide with a suicidal adolescent may cause that person to end their life. *	286	62.17%	
(S31) If you promise to keep a young person's suicide plans confidential you should usually keep that promise. *	254	55.22%	
(S29) Secondary school teachers are in a good position to detect the risk factors for suicide in their students.	216	46.96%	
(S36) Even when the child does not feel comfortable with the mental health provider, psychotherapy should still continue. *	83	18.04%	

<sup>\*</sup> False statements. All other statements can be read as true.



only 27.61% were aware that a young person can be prompted to commit suicide by hearing about somebody else who has committed suicide (S21) (Table 3b).

Knowledge on Warning Signs of Suicidal Behaviors

Table 3c shows the warning signs domain, 'Adolescents who are thinking about suicide usually tell their parents rather than their friends,' (false statement) obtained the highest number of correct responses (82.61%). Generally, more than half of the respondents (61.74%) know that it is dangerous even when there is an improvement seen in the mood of a young person (S25). However, 32.83% of respondents generally do not know that giving away prized possession is not a significant warning sign for suicide (S24).

Knowledge on Prevention and Treatment of Suicidal Behaviors

Table 3d shows the statements under the prevention and control domain. The statement acknowledging psychotherapy as an important component in the management of suicidal ideations and behaviors (S35) had the highest correct teacher responses (86.09%). This is followed by S34 or "Intervention to address acute suicidal crises of students is to keep them safe until the suicidal state diminish" (81.52%). On the other hand, the statement that garnered the lowest correct teacher response is S36 or "Even when the child does not feel comfortable with the mental health provider, psychotherapy should still continue" (18.04%).

#### **Discussion**

Knowledge on Recognition and Referral of Students with Signs and Symptoms of Depression

The results of this study established that 64.13% of the respondents correctly identified depression as the problem of the fictional character in the case vignette. These findings, although needing further improvement, might be attributed to the increasing number of mental health awareness campaigns, especially on depression, in the country [13-15]. Correct recognition of depression could lead to seeking appropriate treatment; it can prevent the negative effects on students' academic performance and deaths from suicide. The result of this study is higher than the sample high school teachers in Eskisehir, Turkey (31.92%), and among sample caregivers in China (43.6%) and Swedish teenagers (31.92%) [16-18]. Contrary to the study of Loureiro et al. among Portuguese youth which yielded 61.1% recognition of depression, the results of the study (64.13%) were not that far in comparison. This may be

due to the openness of the study population among Portuguese youth. Moreover, a study conducted in Canada resulted in a slightly higher recognition (75.6%) which may be attributed to better access to mental health services in their healthcare system [19,20].

When asked about the most appropriate intervention for the case described in the vignette, the most common response was to inform the parents about the character's condition (57.83%). This may be explained by the lack of a written protocol for the referral of students with mental health problems and by the perceived lack of authority of teachers. Multiple studies have shown the importance of parents on the effectiveness of family interventions, in their participation in the treatment, their demonstration of positive control over the child, and their role in lowering stress levels within the family. According to a study by Radovic et al., parents also played an important role in adolescent depression care in terms of treatment access which included transportation, financial support, and social support. However, at times, parents can serve as a risk factor for adolescents with depression especially from parents' frequent use of intrusive support, depressed parents, and family instability due to parents' conflicts [21]. Furthermore, even when informed of the condition of the depressed child, parents with inadequate knowledge could do more harm than help such as by dismissal or negative reaction towards the condition. Ultimately, the presence of either good or bad parental support affects how the treatment progresses. Informal sources of help are those provided by people other than the healthcare workers. In this study, only 4.77% of the respondents said that they will use informal sources of help to aid the affected character in the vignette. Specifically, these included personal communication with the character and encouraging the character to participate in class (4.35%). Informal support may be done in adjunct to professional help to strengthen the management of depression. These may provide firsthand assistance to the child and help in braving the difficult emotions accompanied by the disorder [22]. However, as depression is a medical condition, informal sources of help may not suffice when used primarily or alone. The second most common response is referring the fictional character to the school guidance counselors (20.87%). Guidance counselors are important in the school setting since their duties include organizing guidance and counseling programs which include identifying students' needs and problems and providing effective group counseling to those who need it. In the Philippines, they often have exclusive opportunities to attend workshops, seminars, and talks concerning mental



health. This might explain why the respondents identified guidance counselors to be the most appropriate help for the fictional character. However, only a minority of public schools have professionally trained guidance counselors and many schools have only one guidance counselor for thousands of students. Moreover, the current policy of the Department of Education requires that only guidance counselors with a master's degree can be hired albeit with the low salary grade allocated for the position.

Only 6.52% of the respondents perceived advising the fictional adolescent to see a mental health professional as the most appropriate thing to do. Even though it was mentioned that efforts on mental health awareness are being done in the country, the stigma of seeking mental health professionals is still prevalent. Furthermore, only a small part of the total health budget was previously allotted to mental health. In fact, it was only in the year 2018 that an act on mental health was passed which aims to provide better mental health services, treatment, and management in the country.

Knowledge on Risk Factors, Precipitating Factors, Warning Signs, and Prevention and Control of Students with Suicidal Behaviors

#### Knowledge on Risk Factors

The risk factors domain had 16 statements and the statement referring to the association of hopelessness and the likeliness of committing suicide had the highest correct teacher responses (86.96%). The result of this study is similar to the study of Crawford and Caltabiano conducted among Australian school professionals which had 86.6% correct teacher responses [23]. Respondents also recognized the importance of good social support in decreasing the risk for adolescent suicide (83.70%). However, this result is lower than studies conducted among samples of general practitioners in Australia (91%), American educators (92.7%), and school professionals in Australia (88.1%) [9,23,24]. The results may imply that the respondents, knowing the connection of social support to suicide, may be doing efforts to form social bonds for students to deter them from committing suicide. The statement with the third-highest number of correct teacher responses pertains to the increased likeliness of a depressed young person to commit suicide than any other young persons (79.80%). This is higher among samples of school counselors (70.4%) and of counseling students (67.1%) from Turkey, while it is at par among samples of Australian general practitioners (79%) [9,25]. This could mean that since the respondents know the association between depression and suicide, deaths of

students due to self-harm can be avoided if the respondents are capable of recognizing signs of depression and are empowered to be part of the intervention process. However, the respondents were less informed that the majority of adolescents who commit suicide have a psychiatric disorder (47.39%). These contradicting results may be due to not acknowledging "depression" as a psychiatric disorder and is considered a normal phase of life [26,27]. This is alarming since psychological autopsies in many countries have shown that people who have killed themselves suffered from mental disorders; depression being the most common mental health problem identified [7].

Only 19.04% of the respondents knew that homosexual adolescents were at higher risks of suicide attempts compared to heterosexual adolescents. Lesbian, gay, bisexual, and transgender (LGBT) individuals are subjected to discrimination, bullying, and abuse in educational institutions, and these conditions place the LGBT youth at heightened risk of adverse physical and mental health outcomes which include depression, anxiety, substance use, and suicide [28-31]. Given that such conditions are commonplace in educational institutions, teachers who have an almost-daily interaction with students are expected to understand this heightened risk among homosexuals. Furthermore, there have been local policies under the Department of Education that exist to protect children from bullying, violence, abuse, and exploitation regardless of gender identity and gender expression [28,31-33]. However, respondents may not be receiving enough training and educational discussions to familiarize them with LGBT terminologies and issues.

#### Knowledge on Warning Signs

Most of the respondents knew that adolescents who were thinking about suicide usually inform their friends instead of their parents (82.61%). This was higher than the results of a Turkish study by Siyez & Bas (2009) wherein 67.6% of their sample of guidance counselors answered the statement correctly. However, this result was lower than the studies among Australian general practitioners (88%) and Australian school professionals (86.6%)[9,23,25]. Given this result, teachers would know where to inquire for information regarding students who might be thinking about suicide. This would allow them to intervene earlier to take preventive measures.

Less than half of the teachers knew that mentioning or talking about suicide (49.57%) and suicide threats or statements (44.13%) were warning signs of suicide. Fewer respondents were aware that young people committing

suicide have already given a warning of their intent (41.52%). This is alarming since teachers who failed to get the correct answer may fail to notice or to take suicide threats seriously, hence, missing the chance of intervening and preventing suicide deaths. In addition, statements on the sudden yet extreme changes in eating or sleeping habits, weight loss or weight gain which are warning signs of imminent suicide (36.74%), and the statement on letting go of prized possessions, an insignificant warning sign for suicide, acquired the lowest proportion of correct responses (32.83%). These might impede the preventive roles of the teachers with regard to identifying suicidal students who need assistance. Nonetheless, recognizing the warning signs of suicide and taking them seriously must be one of the areas of future suicide prevention literacy training programs for teachers.

#### Knowledge on Prevention and Treatment

The statement that acquired the highest proportion of correct teacher responses was on acknowledging psychotherapy as an important component in the management of suicidal ideations and behaviors (86.09%). Psychotherapy is used to help people with a broad variety of mental illnesses and emotional difficulties [34]. Many government and private organizations offer psychotherapy services. Furthermore, the Philippine media has promoted its utilization for various mental health problems [35,36]. The respondents of the current study might have heard of them which resulted in the highest proportion of correct responses.

Many of the respondents recognized their role in reducing adolescent suicide completion by identifying students who are at imminent risk of suicide (81.52%). This finding is consistent with a study on African high school teachers, who acknowledged that suicide issues tend to be unavoidable in school settings and school professionals increasingly accept their role as gatekeepers in dealing with suicidal students [37]. However, it contradicts results from a study among Australian teachers which revealed that they did not consider themselves to be in a good position to aid a suicidal student [38]. Less than half of them acknowledge that they are in a good position to detect risk factors for suicide in their students (46.96%). Teachers may be lacking confidence with the knowledge they have on risk factors for suicide thus, yielding the result. Despite the recognition of their role in reducing adolescent suicide, teachers may not be successful in doing such if they are unable to recognize identified suicidal risk factors among students. Knowledge in detecting risk factors among suicidal students needs to be amplified so teachers can provide better assistance and support.

The statement with the lowest correct teacher response is about the continuity of psychotherapy. Only 18.04% of the respondents suggested ending the psychotherapy and looking for another mental health provider when the child does not feel comfortable with his or her current MH provider. This finding may imply that many teachers would not consider the comfort of students when they refer students to a mental health provider. If this happens, the child may not have a speedy recovery. They may also be subjected to more emotional stress that could aggravate the problem. It is important for the teachers to know that the comfort of their students is a vital component of the success of psychotherapies.

#### **Conclusion**

The researchers found that 64% of the respondents identified depression on the first question in the modified QualisMental scale. There were varying approaches regarding the appropriate intervention for such cases; the highest proportion (57.83%) of responses favored informing the parents of the affected student.

More mental health literacy interventions focusing on depression and suicidal behaviors should be conducted for teachers to improve their competency on these topics. Given the findings of the study, the training of teachers to further improve their ability in early recognition of the danger signs of depression among students and the appropriate referral process for mental health interventions could be streamlined in the school setting. It is also recommended to strengthen the parent-teacher alliance on the recognition and intervention process among students with signs of depression and suicidal behaviors. The effectiveness of future mental health programs to be conducted among teachers in the school setting should be explored.

# **Acknowledgements**

The researchers express their sincerest gratitude to Mrs. Carolina Uno-Rayco of Philippine Mental Health Association, Dr. Alejandro Ibanez of the Department of Education, and all the public high school teachers of Manila City who participated in the study.

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