

Post-Millennial Filipinos: Renewed Hope vs Risks

Further Studies of the 2013 Young Adult Fertility and Sexuality (YAFS) Study

*Suicide
Attempts,
Self-Esteem,
Level of
Happiness,
and Life
Satisfaction
Among
Youth from
Davao
Region*



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Mildred M. Estanda and Grace T. Cruz

Suicide Attempts, Self-Esteem, Level of Happiness, and Life Satisfaction Among Youth from Davao Region

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Message from the Executive Director

Since the turn of the century over fifteen years ago, the Philippines has seen the rise of the millennial generation of young Filipinos who are currently shaping the political landscape in late 2016 as they take a committed stand on the issues of the day.

It is appropriate for those concerned with Philippine development work to now start looking at the next generation of Filipinos and the Commission on Population has had a tradition of producing studies concerning young people.

“Post-Millennial Filipinos: Renewed Hope vs Risks” compiles 17 regional papers based on the dataset of the 2013 Young Adult Fertility and Sexuality (YAFS) Study. These studies explore and discuss the emerging issues and concerns of the youth that need appropriate policy and program responses.



The latest YAFS comes more than a decade after the 2002 YAFS. The 2002 YAFS showed the concerns of the millennial Filipino much like the latest YAFS of 2013 marks the rise of the Filipinos born around the turn of the century and could foretell the shape of things to come for the 21st century young Filipino.

The post-millennial Filipino is focused on screens (smart phone, tablet and monitor) and the media is full of “hashtag-worthy” statements of 140 words.

The studies we are presenting continue to note and update matters such as sexual risk behaviors, early sexual involvement, teen pregnancy, reproductive health problems including sexually-transmitted infections as well as non-sexual risk behaviors such as smoking, alcohol abuse and drug use as well as suicide ideation and lifestyle.

We invite you to tune in to the latest findings about the post-millennial Filipino. It can only result in a more informed thread of interaction with the shapers of our country’s future.

A handwritten signature in black ink, appearing to read 'Juan Antonio A. Perez III'.

Juan Antonio A. Perez III, MD, MPH

Executive Director

Commission on Population

Background

The 2013 Young Adult Fertility and Sexuality (YAFS) Study is the fourth installment of a series of nationally representative cross-sectional surveys on Filipino youth aged 15-24 (for YAFS 1 and 2 and 15-27 for YAFS 3). The YAFS has yielded valuable information about young people's sexual and non-sexual behavior, education, labor force participation, family relationships, attitudes and values regarding certain issues concerning them, personal characteristics like self-esteem, and adverse conditions like suicidal ideation and depression symptoms, all of which are of pertinence to one's understanding of this significant sector of society. The 2013 YAFS or YAFS 4 in particular was a response to the need of updating information on the situation of today's young people. From YAFS 3 in 2002, there have been many important new developments in the environment where young people are situated that need to be studied as these affect not just their sexual and non-sexual risk taking behaviors but also their total well-being. For instance, the changes in communication and information technology such as the prevalent use of cellular phones and the internet and the new forms of communication that these have produced like social networking were not explored in the previous YAFS. The foregoing expansion in technology is presumed to have resulted to notable changes in the patterns and topographies of courtship, dating and relationships among young people. The upsurge in the incidence of HIV infection primarily among men who have sex with other men (MSMs) requires more recent reliable data on male sexual and non-sexual risk behaviors which is currently not available because regular survey rounds like the National Demographic and Health Surveys conducted every five years does not routinely include men. Moreover, with YAFS 4, core behaviors that have been monitored over time in YAFS 1, 2 and 3 were also updated. Among these are the sexual risky behaviors, such as the prevalence of early sexual involvement, teen pregnancy and reproductive health problems including sexually transmitted infections (STIs) as well as non-sexual risk behavior like smoking, drinking and drug use.

With the wealth of information yielded by the YAFS 4, the Commission on Population (POPCOM) in partnership with the Demographic Research and Development Foundation, Inc. (DRDF) came up with seventeen (17) regional papers (Regions 1-13, 4B, CAR, NCR and ARMM) that explore and discuss the emerging issues and concerns of the young people that need appropriate policy and program responses.

Suicide Attempts, Self-Esteem, Level of Happiness, and Life Satisfaction Among Youth from Davao Region

Mildred M. Estanda¹ and Grace T. Cruz²

Abstract

Results of the 2013 Young Adult Fertility and Sexuality Study show that while the proportion of youth in the country who have thought of committing suicide declined from 2002 to 2013, the reverse trend was observed in Davao Region. The proportion of suicide ideation among Davao youth increased, and the proportion who attempted to commit suicide rose, particularly among the females. This study was conducted to identify factors contributing to the increased level of youth who have entertained suicidal thoughts and carried out suicide attempts. It also aimed to determine the association of suicide ideation and attempts with self-esteem, life satisfaction, and happiness. Results show that suicide ideation was a significant determinant of the level of self-esteem, happiness, and life satisfaction, while suicide attempt was a significant determinant of the level of happiness but not of self-esteem and life satisfaction.

Keywords: suicide, self-esteem, life satisfaction, young people, Davao

Background and context

Suicide is the third leading cause of death for youth between the ages of 10 and 24, with the number of young people attempting suicide increasing at an alarming rate over time (Anderson, 2002). The suicide rate in the country has increased alarmingly such that in 2012, 2,558 Filipinos committed suicide, a third of whom were youth (Department of Health, 2015). According to the World Health Organization (2014), for every suicide, there are many more people who attempt suicide. Factors that predispose young people to end their lives prematurely include a family history of suicide, history of depression, other mental health problems, alcohol and drug use, and problems of social connectedness with their peers and family. However, a prior suicide attempt has been identified as the single most important risk factor for suicide in the general population (World Health Organization, 2014).

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Despite the alarming statistics on suicide, not many countries have a national policy to address the issue, which may well be among the reasons why the suicide rate continues to rise. The Philippines is one of those countries that has yet to pass a national law on mental health. There is also a dearth of research and available data on the issue. Cultural factors defined by our predominantly Catholic environment, which stigmatizes suicide victims as well as survivors and their families, pose a threat to the proper reporting of suicide incidents. There is thus a need to study the issue as a basis for policy and program formulation. Study findings such as those that will help in detecting suicide warning signs will be most helpful in supporting suicide awareness education for our schools and other institutions that are in charge of monitoring youth health and well-being.

Studying suicide among the youth in Davao Region is particularly significant in light of the findings showing that youth suicide attempts have increased dramatically between 2002 and 2013, largely due to the sharp increase observed among the female youth. Suicide ideation, while declining at the national level, has also increased in the region. What could explain such a phenomenon in the region? What local features explain the increasing number of young people who have attempted to end their lives?

The study setting of Davao Region is made even more significant by its socio-economic and demographic context. The region is the most populous region in Mindanao (Philippine Statistics Authority, 2015). In 2010, it had around 4.5 million inhabitants growing at a rate of 2.12 percent per annum since 1990. Its relatively high economic status is evident in that it has the lowest poverty incidence among the regions in Mindanao (National Economic and Development Authority, 2011). It registered an average employment rate of 94.6 percent, with the unemployment rates remaining at single-digit levels in the past six years. The employment capacity of the major sectors of the regional economy varies and is slowly shifting from agriculture toward becoming a major service-oriented economy. Economic activities are converging in service-related activities, particularly information technology and business process outsourcing centers, medical services, and financial services.

Despite the region's relative economic advantage, a considerable proportion of its population is still living in poverty, including the youth. Such was the case of Marianette Amper, a 12-year-old Davaoëña who hanged herself after being reprimanded for insisting on working after school to help her mother earn additional income. This young girl's view of suicide as an escape from poverty is alarming and demands attention. It is in this context that this research will try to explain youth suicide in the region. In particular, this study aims to examine suicide ideation and suicide attempts as determinants of self-esteem and life satisfaction among the youth from Davao Region. Specifically, it will try to do the following:

1. Assess the level and change in suicide ideation and suicide attempts between 2002 and 2013, controlling for sex
2. Compare the profile of Davao Region youth according to their suicide experience (i.e., those with suicide ideation and those who have attempted suicide)
3. Describe the experience of Davao youth who have attempted suicide, considering the following and controlling for sex:
 - a. Age at first suicide attempt
 - b. Method of suicide used
 - c. Reasons for attempting suicide
 - d. Any family member attempting suicide
4. Compare the level of self-esteem, life satisfaction, and happiness across suicide ideation and suicide attempt experiences, controlling for sex
5. Determine the effects of suicide ideation and suicide attempts on self-esteem, life satisfaction, and happiness, controlling for sex

Review of related literature

Suicide is a crucial global health and social issue, particularly among the youth population aged 10–24 years old. According to the World Health Organization (2014), suicide is the second leading cause of death in the said group, and its effect is often immeasurable, especially the human costs (George, 2009). From 1950 to 2010, the South and East Asia Region was the highest contributor of suicide incidence, while China, India, Japan, and South Korea were branded as high risk because of the noticeable increase in suicide incidence within the said period (Wasserman, Cheng, & Jiang, 2005).

In 2003, 34 percent of all suicide cases in the Philippines were of youths (Department of Health, 2015). However, these estimates appear to be tentative given the difficulty of accessing reliable statistics on the issue. Redaniel, Lebanan-Dalida, and Gunnell (2011) cited religion and unfriendly social factors as indirect evidence of the underreporting of suicide cases. They found that after the implementation of an administrative order updating the civil registry in the mid-1990s, there was a pronounced increase in the registered suicide incidence. Furthermore, although the highest number of fatalities was among males due to their greater predisposition to violence, statistics show that females had a higher number of suicide attempts.

Suicide's strongest risk factors are suicide ideation and attempts. Suicide ideation refers to the initial thought and planning on how to successfully end one's life and the securing of materials to do so, while a suicide attempt is "a self-inflicted, potentially injurious behavior with a nonfatal outcome for which there is evidence (either explicit or implicit) of intent to die" (Silverman, Berman, Sanddal, O'Carroll, & Joiner, 2007, p. 273).

Witte et al. (2008), as cited in George (2009), categorized suicidal adolescents in a large epidemiological study into three: (1) those who planned for a suicide attempt but did not attempt suicide (suicide ideation), (2) those who did not plan an attempt but did attempt suicide (i.e., impulsive attempter), and (3) those who both planned and attempted suicide.

Those who have attempted suicide often cite poverty as one of the reasons for doing so. The experience of poverty is related to financial hardship, unemployment, and hunger, at times a descriptor of social class. In Singapore, a study in the 1970s (but confirmed by recent statistics) showed that young women aged 24 years and below committed suicide due to family problems, unhappiness, and love (Hassan, as cited in Baudelot & Establet, 2008). Among patients who attempted suicide in Iran, social class was a significant determinant of the method used, although it was insignificant with regard to the frequency of suicide attempts (Keyvanara, Mousavi, & Karami, 2013).

Over 1,000 college students in the United States die of suicide each year, and suicides in universities are on the rise (Drum, Brownson, Denmark, & Smith 2009). Similarly, in their study of 2,450 students in a private university in Manila, Lee, Sta. Maria, and Rodriguez (2013) reported that university students aged 17–22 display suicidal ideation or attempts largely attributed to the stress related to their life transitions and dramatic academic and social challenges. The authors noted that suicide ideation can happen to any student with a varied socio-demographic background, with no singular variable identified as the major determinant.

Sex differentials with respect to suicide ideation and attempts among the youth have been observed in most studies across the world. Females were more likely to report suicidal thoughts than boys were (Bakken & Gunter, 2012; Beautrais, 2002; Grunbaum et al., 2004; Krug et al., 2002; Swahn & Bossarte, 2007; Swahn et al., 2012a, as cited in Swahn, Palmier, & Braunstein, 2014). Similar findings were noted among juvenile delinquents in South Korea (Kim, Jun, Jung-Choi, & Karachi, 2010) and in Germany (Kaess et al., 2011). Results show this to be related to emotional and behavioral problems as indicators of an existing psychopathology. Female students showed a greater tendency to internalize problems, whereas male students tended to have slightly higher degrees of externalizing problems.

In contrast to other societies where males have a higher rate of completed suicide than females, India and China demonstrate the opposite pattern. Researchers have claimed that suicide behaviors in these societies, specifically in China, were unique in three areas: gender, age, and location (Zhang, Jia, Wieczorek, & Jiang, 2002), as more young women aged 15–24, often from rural areas, committed suicide. These women were mostly young wives.

Early marriage and pregnancy, harmful traditional practices that compromise the development of girls and even result in social isolation, may increase the possibility of suicidal behavior among young women. Chinese wives attempted suicide as a form of resistance to forced marriage, as revenge against brutal husbands or despotic in-laws, or when they were “unlucky” to have a daughter as their first child (Lee & Kleiman, 2000, as cited in Baudelot & Estabiet, 2008). Similarly, the high rate of suicide attempts among young Indian wives during the early phase of married life was attributed to difficulties of married life in a male-oriented world, in which in-laws make formidable demands and have the power to ensure they are met (Sharma, Pandit, Pathak, & Sharma, 2013).

Self-esteem has been linked to youth suicide. Rosenberg (1965) defined this concept as a positive and negative view of oneself or a feeling of self-worth. He devised an instrument to measure the self-esteem of young people, which is still used now to look for a relationship between self-esteem and suicidal tendencies. Manani and Sharma (2013), using Rosenberg’s self-esteem scale and Reynold’s suicidal ideation questionnaire in a survey involving 120 students aged 16–18, revealed a negative relationship between self-esteem and suicide ideation (i.e., those with low self-esteem have high suicidal ideation). Employing the same standardized instruments when examining the relationships among stress, self-esteem, and suicidal ideation of nonclinical college students, Wilburn and Smith (2005) claimed that self-esteem and stress offer a significant degree of covariance in predicting suicidal ideation, although the former explained a greater degree of variability than the latter. Furthermore, the results of the studies conducted by Creemers, Scholte, Engels, Prinstein, and Wiers (2012) and De Man and Gutierrez (2002) identified self-esteem as a critical predictor of suicidal ideation.

Overholser, Adams, Lehnert, and Brinkman (1995) claimed that youths with low self-esteem were more likely to have previously attempted suicide and more likely to be experiencing suicidal ideation at the time of the assessment. Emler (2001), however, raised methodological issues in establishing the exact nature of the possible relationship between self-esteem and social ills such as suicide. He pointed out the need to recognize the two-way link in that suicidal behavior influences self-esteem in the same way that self-esteem affects suicide.

Framework of analysis

This study is anchored on the interpersonal theory of suicide by Thomas Joiner, which attempts to explain why individuals engage in suicidal behavior and to identify individuals who are at risk. In particular, the interpersonal-psychological theory of suicidal behavior (Joiner, 2005) proposes that an individual will not die by suicide unless he/she has both the desire to die by suicide and the ability to do so. The theory asserts that when people hold two specific psychological states in their minds simultaneously and long enough, they develop the desire for death. The two psychological states are *perceived burdensomeness* and *a sense of low belongingness or social alienation*. On the ability to commit suicide, the theory postulates that self-preservation is a powerful enough instinct that few can overcome it by force of will. The few who can have developed a fearlessness of pain, injury, and death, which they acquire through a process of repeatedly experiencing painful and otherwise provocative events. These experiences often include previous self-injury but can also include other experiences such as repeated accidental injuries, numerous physical fights, and occupations like physician and front-line soldier, in which exposure to pain and injury, either directly or vicariously, is common. The theory suggests that the joint occurrence of perceived burdensomeness and failed belongingness is sufficient to produce the desire to die and that this desire translates into lethal or near-lethal behavior only in the presence of the acquired capacity for lethality.

Data and methods

Data from the Young Adult Fertility and Sexuality Study (YAFS) series for Davao Region was employed in this study. YAFS is a series of national surveys on the Filipino youth, conducted since 1982 by the University of the Philippines Population Institute and the Demographic Research and Development Foundation. Gathering data from Filipino youth ages 15–24, YAFS is one of the primary sources of information on sexual and non-sexual risk behaviors and their determinants in the Philippines at the national and regional levels.

YAFS covers a wide range of topics that are relevant to this age group, such as education trajectories, labor force participation, relationships and roles in society, values and attitudes, and risk behaviors. In its fourth run, YAFS expanded its range of topics and added new questions to previously existing topics.

The field work done in 2013 included face-to-face interviews with youth respondents from all 17 regions of the country. YAFS4 is co-funded by the Australian Government, the United Nations Population Fund, and the Department of Health, through the Philippine Council for Health Research and Development.

This study employed the data collected for Davao Region, covering 1,272 youth respondents from all over the region. Data collection in Davao Region was conducted in collaboration with the Davao del Sur chapter of the Family Planning Organization of the Philippines. Unweighted data were used for this analysis. Statistical analysis methods included frequency counts, crosstabulations, and regression analysis. Statistical runs were done using SPSS version 22.

The main variables of interest are suicide ideation and attempts and their respective correlates including self-esteem, life satisfaction, and current state of happiness. Rosenberg's self-esteem scale, a 10-item Likert scale with items answered on a 4-point scale (from *strongly agree* to *strongly disagree*), was adopted in the survey. Six questions on suicide asked whether the youth has thought of committing suicide (also referred to as suicide ideation in this study), whether the youth has attempted to commit suicide, the methods used, the reasons for attempting to commit suicide, as well as whether any family member or friend has attempted to commit suicide. Since the data gathered were cross-sectional, one limitation of this study is its inability to infer causality. Data gathering was carried out at one time. Questions on suicide referred to the respondents' lifetime experience, while questions related to self-esteem, level of happiness, and life satisfaction were asked in reference to their current state.

While the study recognizes the likelihood of a two-way relationship between suicide ideation/attempts and self-esteem, level of happiness, and life satisfaction, the data cannot support the analysis of both directions of the causality chain. YAFS data provide the current level of self-esteem, happiness, and life satisfaction, while the suicide ideation and attempts are not current measures. Given this, we assumed the latter to have occurred earlier; thus, they are treated as the determinants of the former. Therefore, in the ordinary least squares regression analysis, we assessed the effect of suicide ideation and suicide attempts on the level of self-esteem, happiness, and life satisfaction.

The study also examined the possible correlation between suicide ideation and attempts with individual characteristics such as sex, age, education, marital status, sexual identity, religion, place of residence (urban/rural), and poverty status. These characteristics were considered essential based on the interpersonal theory of suicide by Thomas Joiner (2005), which considered individual characteristics among the factors related to the desire to commit suicide.

To gain a sense of the change in the level of the suicide indicators, we used data from the last two YAFS surveys (2002 and 2013). Statistical tests including chi-square tests and ordinary least squares regression were employed in the study.

Results

Level of and change in suicide ideation and suicide attempts

In general, the profile of the Davao youth is comparable with that of the average Filipino youth. About half of Davao's youth population are females. There is a slightly higher proportion (56.3%) in the younger age cohort (15–19) compared with the older age cohort (20–24; 43.7%). The majority live in rural areas (60.8%) and are never married (74.8%) and Catholic (76.3%); about half have at least a high school diploma. About 27 percent have a poor socio-economic status. About three in four were raised by both parents, one in ten were raised by one parent only, and the rest were raised in alternative setups. The overwhelming majority (95.4%), particularly among the females, consider themselves straight or heterosexual. Compared with the males, the females are a little older, better educated, and more likely to live in an urban setting. More males than females were never married at the time of the survey (Table 1).

Table 1. Profile of the respondents in Davao Region by sex

Characteristics	Male	Female	Both sexes	N of cases
Age group				
15 to 19	58.5	54.4	56.3	716
20 to 24	41.5	45.6	43.7	556
Marital status				
Never married	88.3	63.4	74.8	952
Ever been in union	11.7	36.6	25.2	320
Education				
Elementary and lower	19.7	10.7	14.9	189
High school undergraduate	37.9	35.4	36.6	465
High school graduate/vocational	29.0	31.5	30.3	386
College and higher	13.4	22.4	18.2	232
Description of self				
Straight/heterosexual	93.1	97.4	95.4	1,213
Lesbian/gay	3.4	1.9	2.6	33
Bisexual	(3.4)	(0.7)	(2.0)	25
Religion				
Catholic	76.5	76.1	76.3	970
Other Christian	18.7	20.3	19.6	249
Islam	3.3	2.6	2.9	37
Others/none	(1.5)	(1.0)	(1.3)	16
Person who mostly raised R				
One parent only	11.0	11.2	11.1	141
Both parents	79.4	77.5	78.4	997
One parent and another	2.9	2.3	2.6	33
Others	6.7	9.0	7.9	101
Barangay stratum				
Urban	35.7	42.1	39.2	498
Rural	64.3	57.9	60.8	774
Poverty status				
Non-poor	72.6	72.7	72.6	924
Poor	27.4	27.3	27.4	348
Total	100.0	100.0	100.0	1272

Note. Figures in parentheses are based on fewer than 30 cases.

Although the Davao youth are generally comparable with the rest of the youth in the country in terms of their socio-economic background, they tend to diverge in terms of their suicidal thoughts and behavior. In particular, while the national data reflect a decrease in the proportion of youth who thought of suicide from 13.4 percent in 2002 to 8.7 percent in 2013, the regional data show a slight increase from 11.2 percent to 12.3 percent for those two time points, respectively. At this level, Davao Region ranks third among all regions in the country in terms of suicidal thoughts in 2013. When compared across sex, a higher proportion of female youth have ever thought of suicide; this gender difference is consistent both at the national and regional levels. In 2013, for instance, the proportion of Davao female youth who thought of ending their lives was 16.3 percent, which is twice the proportion observed for their male counterparts (7.6%). The corresponding figures at the national level were 12.6 percent and 4.5 percent, respectively, indicating the sharper gender gap at the national level. Results also show that the decline in suicidal thoughts at the national level is evident for both males and females, and the increase in Davao Region is consistent for both sexes (Table 2).

In terms of those who have tried to commit suicide among those who have ever thought of committing suicide, both the national and regional levels indicated an increase. For Davao Region, the proportion increased from 21.3 percent in 2002 to 25.6 percent in 2013; at the national level, the corresponding figures were 25 percent and 36.8 percent. This suggests a more significant increase at the national level compared with the regional level. The reason for the spike at the national level is the increase observed for both males and females, unlike in Davao Region, which saw an increase among the females but a drop among the males. In particular, the proportion of males who attempted suicide saw a drop from 28.6 percent to 24.2 percent, while that of the females rose (i.e., from 18.1% to 26.2%).

Table 2. Change in suicide ideation and suicide attempts, Philippines and Davao Region: 2002 and 2013

Sex and year	Ever thought of committing suicide				Have tried to commit suicide			
	Davao Region		Philippines		Davao Region		Philippines	
	Percent	N	Percent	N	Percent	N	Percent	N
Both sexes								
2002	11.2	1236	13.4	16,952	21.3	136	25.0	2,271
2013	12.3	960	8.7	19,161	25.6	117	36.8	1,661
Males								
2002	7.1	620	7.6	8,036	28.6	42	27.2	606
2013	7.6	446	4.5	9,354	24.2	33	32.6	426
Females								
2002	15.3	616	18.7	8,916	18.1	94	24.2	1,665
2013	16.3	514	12.6	9,807	26.2	84	38.2	1,235

The first suicide attempt happened at a later age in 2013 relative to 2002 for both sexes and for both the national and regional levels. Data show that Davao youth who have tried to end their lives did so when they were 17 years old on the average as compared to 15 years old in 2002. The delay is more apparent among males, who exhibited almost a three-year delay as compared to the females, where a corresponding delay of one year was registered. This gender differential in change narrowed the gender gap in suicide initiation, which was more apparent in 2002 (14 years for the males and 16 for the females). Thus, in 2013, both males and females who attempted suicide did so at an average age of 17 years. This is comparable with the national figure.

We see not only a later age at onset of first suicide attempt among the youth but also a more homogenous age at suicide attempt. This implies a greater convergence in the age at first suicide attempt in the more recent period relative to the earlier period for both males and females. This also means that the more extreme variation in age at first suicide attempt that was observed in 2002 is less apparent in 2013 (Table 3).

Table 3. Age at first suicide attempt, Philippines and Davao Region: 2002 and 2013

Sex and year	Mean age at first attempt to commit suicide				Standard deviation of mean age at first attempt to commit suicide			
	Davao Region		Philippines		Davao Region		Philippines	
	Mean	N	Mean	N	SD	N	SD	N
Both sexes								
2002	15.3	27	16.5	549	3.9	27	3.0	549
2013	17.0	31	17.0	611	2.6	31	2.8	611
Males								
2002	14.1	12	16.4	163	4.8	12	3.3	163
2013	16.8	8	17.2	138	2.1	8	3.1	138
Females								
2002	16.1	15	16.5	386	3.0	15	2.9	386
2013	17.1	22	17.0	473	2.8	22	2.8	473

Profile of youth with suicide experience

Table 4 provides data on the differentials of the Davao youth according to their suicide experience. Here we tried to classify respondents into those who have attempted suicide, those who have thought of but did not attempt to end their lives, and those who have neither thought of nor attempted suicide. To make the categories mutually exclusive, those who attempted suicide were lumped together regardless of whether they experienced suicide ideation. Those categorized under suicide ideation exclude those who admitted to suicide ideation and did not attempt suicide.

Table 4. Profile of Davao Region youth according to suicide experience by selected background variables

Background characteristics	Thought of suicide	Tried to end life	Neither thought nor tried	Total	N of cases	Sig
Sex						***
Male	5.8	1.7	92.5	100.0	583	
Female	12.2	4.4	83.5	100.0	689	
Age group						
15 to 19	8.2	2.9	88.8	100.0	716	
20 to 24	10.6	3.4	86.0	100.0	556	
Education						
Elementary and lower	5.8	4.2	89.9	100.0	189	
High school undergraduate	8.8	3.0	88.2	100.0	465	
High school graduate/ vocational	10.4	3.1	86.5	100.0	386	
College and higher	11.2	2.6	86.2	100.0	232	
Marital status						***
Never married	8.2	2.1	89.7	100.0	952	
Ever been in union	12.5	6.3	81.3	100.0	320	
Sexual identity						*
Straight/ heterosexual	9.2	3.1	87.6	100.0	1,213	
Lesbian/gay	0.0	3.0	97.0	100.0	33	
Bisexual	24.0	4.0	72.0	100.0	25	
Religion						
Catholic	9.7	3.1	87.2	100.0	970	
Other Christian	8.0	4.0	88.0	100.0	249	
Islam	5.4	0.0	94.6	100.0	37	
Others/none	12.5	0.0	87.5	100.0	16	
Barangay stratum						
Urban	10.0	4.0	85.9	100.0	498	
Rural	8.8	2.6	88.6	100.0	774	
Poverty status						
Non-poor	9.5	3.5	87.0	100.0	924	
Poor	8.6	2.3	89.1	100.0	348	
Total	9.3	3.1	87.6	100.0	1,272	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Results show statistically significant differences in suicide experiences across sex, marital status, and sexual identity. In particular, the levels of suicide ideation and attempts were significantly higher among the females relative to the males, the ever married compared with the never married, and the bisexuals relative to the lesbians/gays and heterosexuals. For example, 12.2 and 4.4 percent of females thought of and attempted suicide, respectively, which is twice the level observed among the males. At least 6 percent among the ever married tried to commit suicide as compared to 2 percent among the never married. In terms of sexual identity, about a fourth (24.0%) of bisexuals reported suicide ideation as compared to 9.2 percent among heterosexuals. The former also slightly edged the latter in terms of suicide attempts (4.0% vs. 3.1%, respectively).

No statistically significant difference was noted in the suicide experiences across age, education, religious affiliation, place of residence, and poverty status.

Circumstances of the suicide experience

The most commonly used method to commit suicide was wrist slashing (62.5%), followed by hanging (22.5%), although the males were more likely to slash their wrists relative to the females (Table 5). Based on several studies, attempters use methods that are easily accessible and materials that are readily available, such as bladed objects and ropes. Both male and female young adults identified family problems (57.5%) as the dominant reason they tried to end their lives. Another third were pushed by a quarrel with their spouse or partner. Generally, however, the youth who have attempted suicide do not have any family or friends with the same experience, with only less than a tenth of those with a history of suicide attempts admitting to having a close relation with a similar experience.

Table 5. Circumstances of the suicide attempt by sex

Suicide experiences	Male		Female		Both sexes		Sig
	Percent	N	Percent	N	Percent	N	
Methods used							
Ingested substances	10.0	10	6.7	30	7.5	40	
Slashed wrist	40.0	10	70.0	30	62.5	40	
Hanged self	40.0	10	16.7	30	22.5	40	
Others	10.0	10	10.0	30	10.0	40	
Reasons tried to end life/commit suicide							
Family problems	60.0	6	56.7	17	57.5	23	
Quarrel with spouse or partner (GF/BF)	40.0	4	30.0	9	32.5	13	
Others	0.0	0	13.3	4	10.0	4	
Total	100.0	10	100.0	30	100.0	40	

Table 5. Circumstances of the suicide attempt by sex (con't)

Suicide experiences	Male		Female		Both sexes		Sig
	Percent	N	Percent	N	Percent	N	
Have any family or friends who tried to end life/commit suicide							
Family member	2.7	16	4.9	34	3.9	50	
Friends	3.6	21	2.8	19	3.1	40	
Family and friends	0.0	0	0.3	2	0.2	2	
No	93.7	546	92.0	634	92.8	1,180	
Total	100.0	583	100.0	689	100.0	1,272	

Suicide, self-esteem, life satisfaction, and happiness

This section examines the relationship between the youth's experience of suicide vis-à-vis their self-esteem, life satisfaction, and happiness. Using Rosenberg's measure of self-esteem, the results show that the Davao youth scored between 17 and 18 on the average (with possible scores ranging from 0 to 40). For the males, there was no significant difference in their self-esteem score regardless of their suicide experience. This was not the case among the females; those without any history of suicide exhibited higher self-esteem. Those who attempted suicide registered the lowest self-esteem (Table 6).

A similar pattern was noted with respect to the level of life satisfaction. Given a maximum score of 10 representing the highest level of life satisfaction, results show a statistically significant difference for the females but not for the males. The female youth who have not thought of or tried suicide are most satisfied with their lives (6.9) compared with those with suicide ideation (5.9) and suicide attempts (6.0).

Regarding the current state of happiness among the youth, results show that those with no history of suicide are happiest, with a mean score of 7.9 and 7.4 for males and females, respectively (with a maximum score of 10, which represents an extremely high happiness level). Generally, those who reported suicide ideation registered the lowest happiness score, at a comparable score of 6.3 and 6.2 for males and females, respectively. Overall, self-esteem, life satisfaction, and happiness were highest among those who did not attempt or think of suicide.

Table 6. Means of self-esteem, life satisfaction, and happiness by suicide status classification and sex

Self-esteem, life satisfaction, and happiness	Have ever thought of committing suicide	Have tried to end life/commit suicide	Neither thought of nor tried to end life	Sig
Self-esteem				
Male	18.6	17.9	18.4	
N	8	34	532	
Female	16.8	16.6	17.8	***
N	30	83	565	
Both sexes	17.2	17.0	18.1	***
N	38	117	1,097	
Level of satisfaction				
Male	6.9	6.9	7.0	
N	10	34	539	
Female	5.9	6.0	6.9	**
N	30	84	574	
Both sexes	6.2	6.3	6.9	**
N	40	118	1,113	
Happiness				
Male	6.3	7.4	7.9	*
N	10	34	539	
Female	6.2	6.8	7.4	**
N	30	84	574	
Both sexes	6.2	6.9	7.6	***
N	40	118	1,113	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Tables 7 and 8 show the effect of suicide ideation and attempts, respectively, on the self-esteem, life satisfaction, and happiness of the Davao youth. The results indicate the significant impact of suicide ideation on all three dependent variables. In particular, those with suicidal thoughts have lower self-esteem, lower life satisfaction, and are less happy than those who did not think of ending their lives, controlling for the effect of the other variables in the model. Other factors also display a significant impact. For example, sex had a significant effect on self-esteem and happiness, with the males displaying an edge over the females. Better-educated youth also had higher self-esteem and were happier relative to those with lower education. Youth raised by both parents consistently displayed a higher level of self-esteem, satisfaction, and happiness relative to their counterparts in an alternative setup.

Table 7. Effects of suicide ideation on self-esteem, life satisfaction, and happiness

Variables	Coefficients					
	Self-esteem	Sig	Life satisfaction	Sig	Happiness	Sig
Constant	18.804	***	8.114	***	7.757	***
Age	-0.071		-0.053		-0.025	
Sex		***				***
Male	0.775		0.187		0.567	
Female (reference)						
Education						
Elementary and below (reference)						
HS undergraduate	0.291		0.102		0.378	*
HS graduate/vocational	0.301		-0.051		0.148	
College+	1.615	***	0.414		0.599	**
Barangay stratum						
Urban	-0.208		-0.066		-0.061	
Rural (reference)						
Sexual identity						
Heterosexual (reference)						
Non-heterosexual	0.254		-0.453		0.208	
Person who raised R		*		***		**
Both parents (reference)						
Others	-0.487		-0.475		-0.433	
Poverty status				***		***
Non-poor (reference)						
Poor	-0.171		-0.721		-0.714	
Marital status						
Ever been in union	0.032		-0.069		0.171	
Never married (reference)						
Religion						
Catholic (reference)						
Non-Catholic	-0.110		-0.172		-0.040	
Suicide		***		**		**
Thought of suicide	-0.984		-0.564		-0.585	
Did not think of suicide (reference)						
R ²	0.061		0.057		0.065	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 8. Effect of suicide attempts on self-esteem, life satisfaction, and happiness

Variables	Coefficients					
	Self-esteem	Sig	Life satisfaction	Sig	Happiness	Sig
Constant	18.785	***	8.126	***	7.814	***
Age	-0.074		-0.055	*	-0.028	
Sex		***				***
Male	0.820		0.208		0.577	
Female (reference)						
Education						
Elementary and below (reference)						
HS undergraduate	0.256		0.078		0.342	
HS graduate/vocational	0.262		-0.078		0.106	
College+	1.572	***	0.379		0.544	*
Barangay stratum						
Urban	-0.208		-0.063		-0.051	
Rural (reference)						
Sexual identity						
Heterosexual (reference)						
Non-heterosexual	0.233		-0.462		0.206	
Person who raised R		*		**		**
Both parents (reference)						
Others	-0.469		-0.453		-0.393	
Poverty status				***		***
Non-poor (reference)						
Poor	-0.180		-0.733		-0.741	
Marital status						
Ever been in union	0.030		-0.056		0.213	
Never married (reference)						
Religion						
Catholic (reference)						
Non-Catholic	-0.092		-0.161		-0.027	
Suicide						***
Tried to end life	-0.437		-0.594		-1.247	
Did not attempt suicide (reference)						
R ²	0.053		0.053		0.069	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Suicide attempts demonstrated a significant effect on the level of happiness but not on self-esteem and life satisfaction. Aside from suicide attempts, other significant variables that help explain the happiness level of the youth include sex, education, socio-economic status, and person who raised the youth during his/her growing up years. In particular, the males, those with higher education, the less poor, and those raised by both parents were happier relative to their counterparts (Table 8).

Summary and recommendations

Over the last decade, while suicide ideation among the Filipino youth declined, the reverse pattern was observed in Davao Region, which registered an increase. Suicide attempts among those who thought of suicide in the region also rose, largely due to the sharp increase observed among the female youth, even as the level declined for the males. The greater preponderance of suicidal thoughts and attempts among the female relative to the male youth in Davao Region is consistent with the results of past studies (Bakken & Gunter, 2012; Beautrais, 2002; Grunbaum et al., 2004; Krug et al., 2002; Swahn & Bossarte, 2007; Swahn et al., 2012a, as cited in Swahn et al., 2014).

While there is an elevated prevalence of suicide among the females in the region, suicide attempts are occurring at a later age, as shown in the increase in the average age at suicide attempt from 15 in 2002 to 17 in 2013. The latter is comparable with that of the national mean age at first suicide attempt.

While some studies consider marriage to be protective against suicide (Corcoran & Nagar, 2009), this is not supported by the present study, which shows a higher level of suicidal tendencies among the ever married compared with the never married, although the latter can be a factor of exposure (i.e., the married are older). The link between marriage and suicide can be attributed to the associated pressures of raising children and performing domestic work, particularly among those who married young and are not prepared to face the challenges of married life. This is evident in the study findings, which showed domestic problems as predisposing factors to youth suicide. Most of those who attempted suicide claimed they were pushed by family problems and quarrels with their spouse or partner.

Suicide attempts do not seem to be modeled after other family members and friends. Most of the youth who attempted to end their lives do not have family members and friends with similar experiences.

The link between sexual identity and suicide has been established in the literature. Lesbian, gay, bisexual, and transgender clients are often at risk for a multitude of physical,

emotional, and social problems and have higher than average rates of depression, substance use issues, and social as well as family rejection. However, these relationships were not validated in the study, which showed no significant correlations between sexual identity and suicidal thoughts and behavior.

Study findings demonstrate that previous suicidal ideation predicts a lower level of self-esteem, happiness, and life satisfaction. This supports previous work by Daskalopoulou et al. (2002) and Tarrier (2008), as cited in Rizwan and Ahmad (2015), which showed the association of low self-esteem with suicide behavior, particularly during depressive episodes. Likewise, Dori and Overholser (1999) showed that suicidal adolescents experienced significantly lower self-esteem and higher levels of depression and hopelessness than did non-suicidal adolescents. Self-esteem was found to be a better indicator of suicide than a person's level of suicidal ideation (Rizwan & Ahmad, 2015).

Our study results established the significant effect of suicide attempts on the level of happiness but not on self-esteem and life satisfaction. This finding fails to provide support for the literature establishing the strong relationship between suicide attempts and self-esteem, with many studies considering it a two-way relationship in that low self-esteem can be a factor in suicidal behavior, which in turn may lead to low self-esteem. It is also possible that young adults with low self-esteem were more likely to have previously attempted suicide and were more likely to be experiencing suicidal ideation (Overholser et al., 1995). The sensitivity of the issue also raises concern as to the research method, particularly on establishing the exact nature of the possible relationship between self-esteem and suicide (Emler, 2001).

Bearing in mind that suicide remains a controversial issue, suicide behaviors continue to receive different reactions from different people. Reactions, either positive or negative, are crucial to young people who are still in the process of establishing their own identities and strengthening their views of themselves. In view of these findings, there is a need to provide special focus on the mental health status of young people and understand the factors that predispose them to engage in such risky behavior. A more open discussion on the issue should be encouraged in various venues like the family, school, and the church to make the public, particularly the young, better understand the causes and consequences of such behavior. The existing school-based youth centers of the Commission on Population Region XI as well as the existing Adolescent Health and Youth Development Program can be strengthened to provide the youth, parents, teachers, and social workers with a venue to discuss the promotion of self-esteem and coping mechanisms to handle stress, risky behavior, and the like among the youth. Subsequently, partnerships among different agencies, development organizations, the youth, and the community could be enhanced, especially in the referral system as well as the early detection and handling of suicide cases.

To this end, there is a need to pursue further studies that will help identify appropriate interventions to help minimize suicide attempts. Studies that will tease out the interrelationships between suicide and self-esteem, happiness, and life satisfaction are worth pursuing. There is also a need to identify the interventions given/received after suicide experience that would likely affect the youth's current level of self-esteem, life satisfaction, and happiness. Finally, further studies must gather more data and develop more sensitive measures to better appreciate the true level of suicide ideation and attempts.

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