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RESEARCH ARTICLE

The Causes of Suicide and Its Socio-demographic Factors in the Philippines

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ABSTRACT

The study aimed to find out the common causes of suicide in relation to socio-demographic factors in Cagayan de Oro (CDO), Philippines. Only secondary data were gathered which were already publicly published. Results revealed that the common causes of suicide were depression, family problem, financial problem, work pressure and the COVID-19 pandemic. The socio-demographic factors were age, sex, location, civil status and economic status (with or without employment). The highest percentage (37.18%) was due to depression followed by family problem (21.79%). The most number of suicide cases was found among males (82.05%) as compared to females (15.38%) and lesbian, gay, bisexual and transgender (LGBT) (2.56%). A total of 78.20% of cases came from urban part while only 21.80% were from rural area. Results revealed that the socio-demographic factors significantly predict the causes of suicide (p = .053). Among the factors, only the location had a significant coefficient (β = 1.41, p = .22) which indicated that the propensity of suicide cases were mostly at urban areas. The regression analysis identified were age, sex, location, and civil status as predictors of completed suicide cases. In conclusion, depression was the most common cause of suicide particularly among single individuals in the urban area.

INTRODUCTION

Suicide is a highly complex and heterogeneous phenotype with numerous underlying psychological, environmental, neurological and closely associated with gender, age, ethnicity, employment status, mental health issues, seasonality, socioeconomic status and education (Fountoulakis et al., 2014). The World Health Organization (WHO, 2019) declared suicide as the second leading cause of death among young people aged 15-29 years, after road injury. It also stated that 33 millions of Filipinos are depressed and 8 in every 100,000 Filipinos commit suicide. CDO is a coastal highly urbanized city located in southern Philippines with a total of 80 barangays (smallest administrative division in the Philippines, native Filipino term for village or district). Fifty-seven barangays are categorized as urban while 23 are rural. In the Updated Comprehensive Development Plan of the City Government (2017-2019), the city has an annual population growth rate of 2.23% over the last intercensal period (2010-2015), which is higher than that of the regional and national growth rates of 1.68% and 1.72%, respectively. The city's rapid population growth is attributed to high annual birth rates coupled by in-migration of people from other areas who were drawn by job and income opportunities in both the public and private sectors.

In conjunction with the general shift towards more urban living, a study has seen an increase in the diagnosis of common mental disorders and a rising prevalence of self-harm and suicide (Satherley et al., 2022). The inter-relationships between urban living and well-being showed detrimental effects of urban living on the population's mental health (Galea and Vlahov, 2005). Low socio-economic status, social segregation and low social capital are examples of risk factors that can cause impaired well-being (Gruebner et al., 2017). Worldwide rates of suicide were highest in urban areas (Solmi et al., 2017). Those living in urban

environments may be disadvantaged on many levels, experiencing increased crime, social fragmentation, socio-economic deprivation, poorer quality housing, and/or limited access to green space (Hatch, 2005). All these issues are present in CDO which might have contributed to the emergence of suicide cases in the city. The main objective of this study was to find out the common causes of suicide cases in CDO in relation to socio-demographic factors.

MATERIALS AND METHODS

Descriptive method of research was used in the study. Only secondary data of reported suicide cases in CDO, Philippines which were already published in the local news were gathered. The study considered a period of almost 4 years from 2018 to 2021 and noted attempted suicide cases and also those cases which resulted to death. Since suicide is considered as a sensitive topic for investigation, the researchers decided to use published cases only. In such a way, the cases were already made public so the study would not violate any ethical issue. Some reports gathered by the journalists came from police stations while others were from the interviews of the victims' families. Variables used in the study were age sex, location, civil status and economic status. Results were statistically analyzed by using the SPSS program.

RESULTS AND DISCUSSION

The study found 80 suicide cases in CDO as reported in the local news within the said period of time. Only 2 (1 LGBT in 2019 and 1 male in 2020) out of 80 were attempted suicide cases which resulted to survival representing only 2.5% of the total. All the suicide cases presented (in the Tables below) are completed suicide that resulted into death. The males registered the highest case with a total of 82.05% completed suicide cases from 2018 to 2021 while the females only had 15. 38% (Table 1). As reported by WHO (2019), the overall suicide rate of 3.20 per 100000 individuals had a higher recorded rate in males (4.30 per 100000 individuals) than females (2.0 per 100000 individuals). In the Philippines, incident of suicide cases have been increased from 0.23 to 3.59 per 100000 in males and from 0.12 to 1.09 per 100000 in females from 1984 to 2005 (Redaniel et al., 2011). In contrast, in the country of Lesotho (Southern Africa), the suicide mortality rate of female (per 100000 female population) showed 24.40 % of female committed suicide than male (17.80%) (WHO, 2021).

In the present study, the age group between 18-27 years old had the highest suicide cases (33.8%) followed by 28-37 years old (21.3%). More than 12% of the cases were 17 years old and below; and the youngest case was 10 years old. Further, suicide cases decreased as the age increases. Hsallfors et al. (2004) reported that many adolescents showed signs of depression and suicide ranked third as leading cause of death among 15-19 years old. Similar findings were reported in Japan where suicide in younger generation was the number one cause of death among young people aged 15-39 years old which increased 3-4% per year for male teenager and 2% for female teenager (Yong and Nomura, 2019). On the other hand, Cukrowicz et al. (2011) reported depression and hopelessness as associated factors with suicide risk among older adults. Major depressive disorder was further, depression was the most common psychiatric disorder in older adults committed suicide (Conwell et al., 2002).

In the study, highest percentage of suicide was caused by depression followed by family problems. The males still registered the highest cases caused by depression followed by family and personal problems (Table 3). Female suicide cases were mainly due to family and personal problems. Young women were at the greatest risk for depression and mental disorders globally (Whiteford et al., 2013). The triggers for depression found variable in males and female; depressed women more often presenting with internalizing symptoms and men presenting with externalizing symptoms (Bartels et al., 2013). Results also showed that suicide cases among the LGBT were mainly caused by family problem and because of no apparent reason (Table 3). Russell and Joyner (2001) found that adolescents with same sex attractions were more than twice as likely to attempt suicide when compared to those adolescents with opposite sex attractions. Those youths who question their sexual identity reported higher level of depression and suicidal thoughts when compared to heterosexual youth, or even those who were openly lesbian, gay, or bisexual (Reynolds, 2011). In the study of Rivers et al. (2018) concerning LGBT well-being and mental health noted limited understanding of the dimensions of sexual orientation and transgender status that were most significantly associated with suicidality. However, Marshal et al. (2011) mentioned that the existing studies demonstrated that LGBT people were at increased risk of poor mental health and greater risk of suicidality compared to heterosexual and gender counterparts.

As far as location is concerned, 78.20% of cases of suicide came from urban while only 21.80% from rural area (Table 4). Depression was the leading cause of suicide cases in urban area followed by family and personal problems. The same leading causes were observed in the rural area with an apparent uniformity in the number of cases. Again, a considerable number of suicide cases had no apparent reason. One case of suicide in urban area was committed during quarantine

Table 1: Socio-demographic variables used in the study

Variable	Purpose
Age	To indicate the minors, age bracket of 17 years old and below was used. Succeeding age brackets were grouped using 10 years interval up to age 57. Beyond 57 was considered as the last age group. This was done to easily determine suicide cases by age group.
Sex	To find out differences between males, females and the LGBT, suicide cases were also segregated according to sex.
Location	The location of the incident where suicide took place is the determining factor used to classify whether it is urban or rural.
Civil status	The study noted whether the suicide case involved an individual who either has a single (SL), married (MR), separated (SR), widowed (WD) or a live-in (LI) status.
Economic status	Economic status was used to classify whether the individuals involved in suicide cases have employment or not as source of income.

Table 2: Year and sex wise details of suicide cases

Year	Male	Female	Lgbt	Total
2018	8	3	0	11
2019	11	1	2	15
2020	23	6	0	30
2021	22	2	0	24
Total Cases (%)	64 (82.05)	12 (15.38)	2 (2.56)	78 (100)

Table 3: Causes of suicide vis-à-vis sex

Cause	Male	Female	Lgbt	Total
No Apparent Reason	10	2	1	13
Depression	28	1	0	29
Family Problem	11	5	1	17
Work Pressure	1	0	0	1
Financial Problem	2	0	0	2
Personal	11	4	0	15
Due To Covid-19 Pandemic	1	0	0	1
Total Cases (%)	64(82.05)	12(15.38)	2(2.56)	78(100)

Table 4: Causes of suicide vis-à-vis location

Cause	Urban	Rural	Total
No Apparent Reason	12	1	13
Depression	24	5	29
Family Problem	12	5	17
Work Pressure	1	0	1
Financial Problem	1	1	2
Personal	10	5	15
Due To Covid-19 Pandemic	1	0	1
Total Cases (%)	61(78.20)	17(21.80)	78(100)

confinement due to COVID-19. Chung et al. (2008) reported that those residing in more urbanized areas in Taiwan tended to commit suicide by violent methods, an association that remains after controlling for the age, gender, marital and employment status of the victims, and the season during which the deaths occurred noting a significant association between urban-city and suicide methods. Although this study found more suicide cases in urban than in rural area of CDO, Kapusta et al. (2008) showed that the ratio of rural to urban suicide rates continuously increased in both genders over the past 35 years, indicating a growing risk in rural areas in Austria.

In terms of civil status, SL people had the highest number of cases followed by MR people (Table 5). Depression remained the leading cause of suicide followed by family and personal problems. SL registered

Table 5: Causes of suicide vis-à-vis civil status

Cause	SL	MR	LI	WD	SR	Total
No apparent reason	11	0	1	1	0	13
Depression	20	6	1	0	2	29
Family Problem	6	6	4	0	1	17
Work Pressure	0	1	0	0	0	1
Financial Problem	2	0	0	0	0	2
Personal	12	0	0	2	1	15
Due To Covid-19 Pandemic	0	1	0	0	0	1
Total Cases (%)	51 (65.40)	14 (17.90)	6 (7.70)	3 (3.80)	4 (5.10)	78 (100)

Table 6: Causes of suicide vis-à-vis economic status

Cause	Unemployed	Employed	Total
No Apparent Reason	6	7	13
Depression	14	15	29
Family Problem	9	8	17
Work Pressure	0	1	1
Financial Problem	0	2	2
Personal	3	12	15
Due To Covid-19 Pandemic	0	1	1
Total Cases (%)	32 (41)	46 (59)	78 (100)

the highest case of suicide mostly caused by depression followed by personal reason. For MR people, depression and family problem had the same number of cases. Those with LI status, the highest case was due to family problem. Stack (1998) reported that marriage may increase the likelihood of having a confidant and reduced the risk of loneliness. Married persons usually experienced higher levels of social support as compared to unmarried (Soulsby and Bennett, 2015), which believed to enhance general well-being in daily life through positive affect and recognition of self-worth, and to buffer adverse psychological and physiological reactions that may arise from stressful live-events and conditions (Cohen and Wills, 1985).

It was quite interesting in the present study to note that more than half of suicide cases were people who had employment but work pressure was among the least of causes (Table 6). Depression was still the number one cause followed by family and personal problems and were the top three causes in both groups. A considerable number of suicide cases with no apparent reason was also found for both employed and unemployed groups. Previous research reported a

relationship between higher overall suicide rates and economic recessions, when there were periods with high unemployment rate (Laanani et al., 2015; Nordt et al., 2015). Stratification analyses suggested that the impact of unemployment on suicide varied by age and sex, with strong associations for males, as well as middle-aged to older adults (Men et al., 2022). Further, unemployed people found particularly vulnerable to suicide and the impact of community-level unemployment on suicide may also vary among people with different employment status and at different economic time periods ((Schneider et al., 2011; Yip and Caine, 2011).

Statistical results showed that the socio-demographic factors significantly predict the causes of suicide (p = .053). Among the factors, only the location had a significant coefficient (β = 1.41, p = .22) which indicated that the propensity of suicide cases were mostly at urban areas. The regression analysis identified were age, sex, location, and civil status as predictors of completed suicide cases (those that resulted to death) for the study period, 2018-2021. The variables explained 14.0% of the variance of the completed suicide cases for the years covered (R^2 = 1.94). It indicated that completed suicide in this context determined to a large extent by age, sex, location, and civil status. This was particularly true for males with depression and females with family problems. Moreover, the propensity of suicide cases were mostly among single individuals in urban areas.

Conclusion

It was concluded that suicide in CDO, a highly urbanized area in the Philippines, largely caused by depression followed by family and personal problems. It was found to be an extremely alarming issue among single males (18- 27 years old) particularly in the urban area of CDO.

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Authors' Contributions

FTAC wrote the manuscript. MLB facilitated in data gathering. IMQN conceptualized the study. The authors declared that there is no conflict of interest and data is being published after approval from relevant authorities/organizations.

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