Demography and risk factors of suicidal behavior in Bangladesh: A retrospective online news content analysis

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ABSTRACT

Background: Suicide is an under attended public health problem in Bangladesh as there is no central suicide database and no national suicide surveillance system in the country.
Objectives: We aimed to look into the suicide metrics in Bangladesh by analyzing the online news portals, retrospectively.
Methods: Eight Bangla online news portals were selected purposively to include in the study and news of suicides were searched retrospectively. Search was conducted by the word "suicide news" (Attohottar Khabor). Initially news portal were searched with the searching word retrospectively. Then links of all news were collected. After removal of the repetitions data were inputted into software.
Results: Since 2009 to April 2018, three hundred fifty-eight reports were scrutinized. Mean age was 23.84 (± 11.42) years, ranging from 10–85 years. Seventy percent of the reported cases were less than 30 years of age, 60.1% were female, 37.7% were student, 48.6% from rural background, and about 51% were unmarried. Hanging was found as the commonest method (60.9%) and affair related issues remained as a noticeable risk factor (14.25%). About 8% of the respondents were found to have suicide notes and suicides were found higher in night & spring.
Conclusion: Early adult, female gender, unmarried, students were more vulnerable. Hanging was commonest method followed by poisoning. Affair related aspects, marital discord, familial disharmony drew attention as risk factors. Suicide happened higher in the night and spring season.

1. Introduction

Suicide is an under attended preventable public health problem in Bangladesh (Shah et al., 2017, 2018; Arafat et al., 2018). There is no central suicide database, no national suicide surveillance system as well as paucity of research on suicide is also prevails in the country (Shah et al., 2017; Arafat, 2017; Khan, 2005; Salam et al., 2017). Furthermore, suicide is considered as criminal offence in the legal system of the country (Arafat, 2017). Legal consequences of suicide are perceived as miserable and problematic to community people. Religious factors are also responsible to hide the suicide disclosures as about 90% of the population of Bangladesh are Muslims (Khan, 2005). Social factors play role to under identification and under registration of suicides and many a times families do not disclose the true nature of the act for fear of harassment by police and/or effects of social stigma (Arafat, 2017). People used to hide the suicidal news of their near and dear ones by mentioning suicides as accident or sometimes homicides (Khan, 2005).

It's very hard to get strictly scientific information regarding suicide/ suicidal behavior in the country as reports from police, media, forensic settings, hospitals, courts and such institutions are considered as sources of data (Arafat, 2017; Shah et al., 2017). Previously few researches were conducted exploring the demography and risk factors of suicide in the country, consequently it remains under explored. In 2017 Shah et al. explored demography risk factors and methods of suicides by prospectively analyzing the printed hard copies of newspaper contents. We aimed to look into the suicide metrics in Bangladesh by analyzing the online news portal retrospectively focusing on demography, risk factors and methods of suicide.

2. Methods

2.1. Data collection

Eight Bangla online news portals were selected purposively to

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include in the study and news of suicides were searched retrospectively. Only Bangla online news portals were selected because Bangla is the native language of the country. Before starting the study, authors conducted a survey for selecting the portals. Authors focused on the circularity of the portals, and frequent publications of suicide news in the portal. Based on the observations from that survey authors purposively selected highly circulated portals which publish frequent suicide news. (NB: There is no publicly available readership figures for online news portals in Bangladesh). Search was conducted by the word "suicide news" (Attohottar Khabor). News portals were bdnew24, banglanews24, jagonews24, bartabangla, risingbd, justnewsbd, bdveiw, and banglarkhabor24. Initially news portal were searched with the searching word retrospectively. Following links of all news were collected because hard copies of the news are not available and online contents have been readily available which is also more feasible for retrospective analysis of the suicide reports. Repetitions were identified considering the name, age, occupation of the victim and place of suicide and such identifying variables. Report of same suicide in different portals were considered as duplications. That was found mostly in cases of celebrity, and/or famous persons. After removal of repetitions final data were inputted into software. A total of 358 reports were assessed and analyzed by Statistical Package for Social Science (SPSS) version 16 and Microsoft Excel version 2010 software.

2.2. Inclusion of news

News of those were clearly indicated as suicides and suicidal attempts, suicidal news of Bangladeshi citizens, and suicidal news bounded by the geographic area of Bangladesh were considered as inclusion criteria.

2.3. Variables

Age, sex, occupation, educational status, residence, marital status, method of suicide, identifiable risk factors, time of suicide, noticing/reporting person, suicidal notes, any history of previous attempts, family history of suicides, post mortem information, persons involved in suicide, association with psychiatric disorders, were considered as the variables of the study.

2.4. Permission

As the data includes only online available previously published information, no formal ethical clearance was considered.

3. Results

A total of 358 reports were found from 2009 to April 2018 in the assigned news portals. The mean age of the respondents was 23.84 (± 11.42) years which ranges from 10–85 years. Seventy percent of the reported cases were less than 30 years of age, 60.1% were female, 37.7% were student, 48.6% from rural background, and 51.1% were unmarried (Table 1). Majority of the respondents (123) died before reaching the graduation status (Table 1). As the study was based on the online news analysis there was significant portion of the variables of a particular case was missing. Among them age was not found in 13.7% (49) of the reports, marital status in 10.6% reports, occupation in 32.1% of reports, and educational status was not found 63.7% of the reports (Table 1). About 61% of the suicides were completed by hanging followed by intentional poisoning (Table 2). Affair related issues (14.25%), marital discords (11.17%), familial discords (10.89%) were found as the mentionable risk factors (Table 2). However, about 26% reports didn't reports the risk factors (Table 2). Night was found as most critical time to consider suicidal decisions and about 30% of the suicide suicides were happened at night time (Table 2). Close family members noticed and reported the suicides in 46.60% cases, followed

Table 1
Distribution of demographic variables of the respondents mentioned in 8 Bangla online news portal (n = 358).

Demographic Variable	Frequency	Percentage
Age in Years		
10–20	149	41.2
21–30	105	29.3
31–40	33	9.2
41–50	10	2.8
51–60	7	2.0
61–70	3	.8
71–85	2	.6
Missing	49	13.7
Sex		
Male	142	39.7
Female	215	60.1
Marital Status		
Married	137	38.3
Unmarried	183	51.1
Missing	38	10.6
Habitat		
Urban	156	43.6
Rural	174	48.6
Missing	28	7.8
Occupation		
Student	135	37.71
Housewife	61	17.04
Service holder	13	3.63
Law force	5	1.40
Media worker	5	1.40
Others	14	3.91
Laborer	10	2.79
Not mentioned	115	32.12
Education		
Primary	6	1.7
Secondary	62	17.3
SSC	21	5.9
HSC	34	9.5
Graduate	6	1.7
Postgraduate	1	.3
Missing	228	63.7

by neighbors (9%), roommates (5.6%), law enforcements (4.7%), public (3%) and few by others. Eight percent of respondents had suicidal notes (Table 2), 5.59% had psychiatric illness, 3% committed suicides due to not fulfilling the immediate demands, and 2.23% of the respondents had physical illness (Table 2). Multiple persons were involved in the suicidal acts in about 17% (62) of the respondents (Table 2). Completed suicides were reported in 317 (88.50%) reports, self-harm behavior was found in 41 (11.50%) reports and 21 (6%) suicide reports were associated with homicides (Table 2). Seventy percent of the online reports contained images and 14% reports contained the image of the victims. Year-round tracing of suicides based on the repots revealed a pick during March and April (Fig. 1).

4. Discussion

As an underexplored problem we aimed to look into suicide variables based on online news portal reports retrospectively. The study revealed the mean age of the respondents was 23.84 (± 11.42) years ranging from 10–85 years which indicates the suicides in marginal ages and about 7 out of 10 suicides happened before the age of thirty which signifies early loss of productive lives (Table 1). Similar finding was reported in printed newspaper content analysis in Bangladesh where mean age was 26.67 (± 13.47) years, ranging from 11–70 years, and 61% died before the age of 30 (Shah et al., 2017). Recent reviews also commensurate the findings where range of age was 10–78 years and majority of suicides happened before 30 years of age in the country (Arafat, 2017; Feroz et al., 2012; Shah et al., 2018). In India Patel et al., mentioned the vulnerable age was between 15–69 years (Patel et al.,