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Current challenges of suicide and future directions of management in Bangladesh: a systematic review

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Abstract

Objectives: Bangladesh is a densely populated country in south-east Asia with paucity of research in suicide. This systematic review was aimed at critical appraising various aspects of suicide in Bangladesh based on available literature and systematic search.
Methods: Extensive literature search was conducted in Scopus, PubMed, PubMed Central, Google, Google Scholar and BanglaJOL with searching key words without any date boundary and without any basis of types of studies, that is, all types of studies were scrutinised. The author focused on sources of suicide data along with epidemiological variables of suicides in Bangladesh such as suicide rate, gender of victims, methods of suicides, risk factors and prevention activities and role of media in suicide.
Results: After exclusion of repetitions, screening was performed, and finally, 35 articles were selected for review. Amongst the 35 articles, 16 articles were original contributions, 2 systematic reviews, 6 narrative reviews, 2 scoping reviews, 3 editorials, 3 case reports and rest correspondence article. The review revealed that the actual rate of suicide in Bangladesh is yet to come out and quality data is a real challenge. Women are dying more than the men, and early adulthood is the most vulnerable time of life.
Discussion: Suicide is a under attended problem in Bangladesh, as the country yet to reveal the actual rate of suicide along with the challenge of quality data. Prevention activities have been started but yet to be visualised. Decriminalisation of suicide in the legal criteria and establishment of suicide surveillance can be the top priorities in the country.

Keywords

Bangladesh, suicide, risk factors, women, men, systematic review.

INTRODUCTION

Bangladesh is a densely populated country in south-east Asia having about 160 million people with a density of about 1063 per square kilometre (Shahnaz et al. 2017; Arafat 2017; Mashreky et al. 2013). Suicide is a complex, multi-causal, global preventable public health problem that is under researched in Bangladesh (World Health Organization 2014; Shahnaz et al. 2017; Mashreky et al. 2013; Shah et al. 2017, 2018; Arafat et al. 2018a,b; Arafat 2017). The World Health Organization (WHO) estimated that about 10,000 persons are dying by suicide per year in the country (World Health Organization 2014; Mashreky et al. 2013; Shahnaz et al. 2017; Begum et al. 2017a). It is the fourth leading cause of overall injury-related deaths and second important cause of injury-associated death in age groups of 20–39 years in Bangladesh (Mashreky et al. 2013). However, national suicide surveillance and nationwide study on suicide are yet to be initiated (Khan 2005; Arafat 2017; Shah et al. 2017; Chowdhury et al. 2018). Furthermore, it is still a criminal offence in the legal system of the country, which has been considered as a barrier of help seeking (Suryadevara & Tandon 2018; Salam et al. 2017; Khan 2005; Arafat 2017; Shah et al. 2017). Therefore, the author aimed at critical appraising different aspects of suicide in Bangladesh based on the available literature and systematic search.

METHODS

Literature searching

For the critical appraisal of suicide in Bangladesh, the author conducted a systematic review of the following databases: PubMed, PubMed Central, Scopus, Google, Google Scholar and BanglaJOL. The relevant literature search was conducted from August to October 2018. The search terms used were suicide in Bangladesh, rate of suicide in Bangladesh, methods of suicide in Bangladesh, risk factors of suicide in Bangladesh, epidemiology of suicide in Bangladesh and means of suicide in Bangladesh.

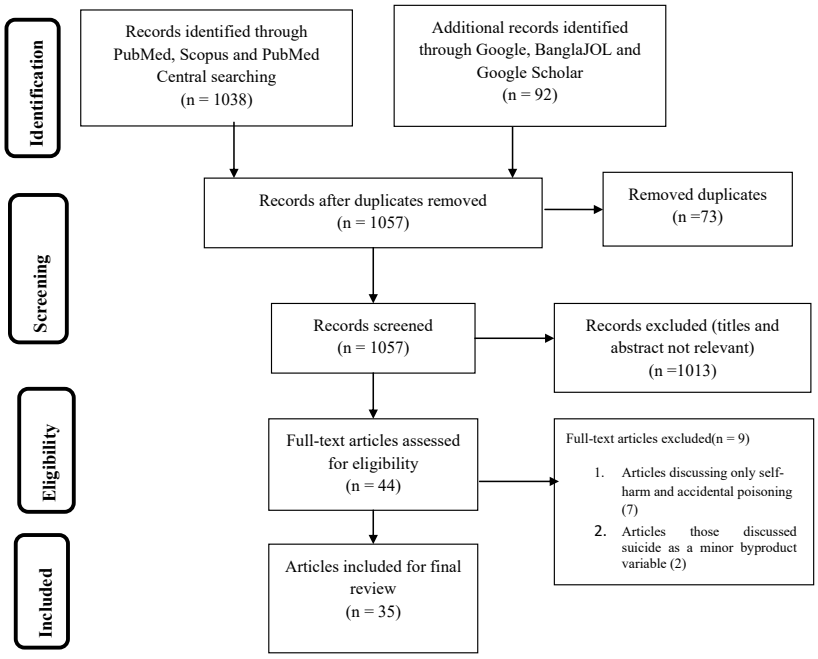

Figure 1. Flow chart of article search and selection process

Selection of the articles

The author considered the following criteria for inclusion of articles in the review:

- Articles discussing variables of suicides
- Articles in English language
- Articles of suicide of Bangladeshi citizens living in Bangladesh at the time of study
- Articles of suicide covering the geography of Bangladesh only

The author considered the following criteria for exclusion from the review:

- Articles discussing only self-harm
- Articles discussing accidental poisoning
- Articles revealing suicide as a minor by-product variable for overall cause of death in a community

Data extraction and assessment of bias

The extracted data included author names, publication year, type of article, sample size, study design, demography of respondents, quality of data, sources of suicide data, rate of suicide in Bangladesh, methods of suicide in the country, prominent risk factors of suicide, existing suicide prevention activities, assessment of media activity influencing the suicidality of people of Bangladesh and possible bias based on the PRISMA guideline by the author himself (Fig. 1). Biases were evaluated based on the Cochrane criteria (Higgins et al. 2017).

RESULTS

Outcome of the systematic search

A total of 1057 articles were identified from the systematic search using the above-mentioned search terms from PubMed, PubMed Central, Scopus, Google, Google Scholar and BanglaJOL after the exclusion of duplicates. Titles and abstracts of these papers were screened for their relevance on suicide metrics of Bangladesh. A total of 44 full-text articles were reviewed, and finally, 35 articles were included in the study following PRISMA guideline (Figure 1).

Data characteristics

Amongst the finally selected 35 articles, majority (16) were original contributions, followed by review articles as 2 were systematic reviews, 6 narrative reviews, 2 scoping reviews, 3 editorials and followed by the case reports (3) and rest were the correspondence/letter to the editor article (Table 1). The year of publication ranges from 2002 to 2018 with increased propensity of recent articles.

Risk of bias assessment

Potential risk of biases pertained in the studies as many of the selected studies were cross-sectional and observational in design along with editorials, case reports and correspondence articles those lacked meticulous methods (Table 1). Two studies analysed conveniently selected news reports of suicidal news (Shah et al. 2017; Arafat et al. 2018b) and one study analysed media reporting quality without assessing the epidemiological aspects of suicide (Arafat et al. in press). However, the included epidemiological studies (4) followed meticulous scientific methods and had representative samples (Salam et al. 2017; Masrekhy et al. 2013; Feroz et al. 2012; Begum et al. 2017b). One cross-sectional study had representative sample size, which explored suicide deaths by hanging only as method (Begum et al. 2017a). No study included or excluded participants based on the specific risk factors.

DISCUSSION

Challenges of quality data

Similar to other developing countries, getting quality and strict scientific data is a central challenge in Bangladesh because of lacking of suicide surveillance and national suicide database, consideration of suicide as a criminal offence, existing religious beliefs and enduring cultural practices (Khan 2002, 2005; Arafat 2017; Salam et al. 2017; Shah et al. 2017). Suicide surveillance has not been established, which is a prime obstacle to get regular enduring data on suicide (Arafat 2017). Reliable and meticulous source of suicide data is out of reach for the researchers, policy maker as well as other individuals. Moreover, as per the legal system, it is still a punishable criminal offence that generates a natural tendency to hide the suicides. Channelising suicide as accidental death is somewhat a common phenomenon to avoid the aversive legal consequences, because mostly people have been harassed by the legal agencies instead of getting trails for suicidal events. Sometimes, relatives claim suicides as homicides without any firm evidence and start legal proceedings. This is somewhat a common phenomenon when suicide happens in in-law's residence. Owing to adequate understanding, knowledge people become paranoid towards others even without any clue. Religious factors play roles to hide suicides, as suicide is discouraged in Islam and about 90% of inhabitants of Bangladesh are Muslims. In addition, strong social stigma on suicide in families affects social status, social acceptance, nuptial events specially affecting the girls of the affected family and such (Shahnaz et al. 2017; Arafat 2017; Shah et al. 2017; Khan 2002). Sometimes patients with suicidal behaviour are referred to another hospital to avoid adverse hassles; those are not only the legal issues but also other unexplainable demands of the patient party such as they create threatening pressure on the medical staffs demanding undue certificates that the behaviour is imposed by persecutors. Every now and then guardians take their patients to such hospitals where they can avoid suicide register and hide it from legal system. Hence, suicide is grossly under-registered and getting quality data is a real challenge in Bangladesh (Khan 2002, 2005; World Health Organization 2014). Available information was mainly found in reports of police and other law enforcing agencies, forensic reports, media sources and limited other sources of reports such as hospitals, Thana and courts (Chowdhury et al. 2018; Arafat 2017; Shah et al. 2017; Quader et al. 2010).

Suicide rate

Suicide is grossly under reported and under registered in countries such as Bangladesh (Khan 2002 2005; World Health Organization 2014; Chowdhury et al. 2018; Shahnaz et al. 2017). Moreover, there is no suicidal database in the country to report suicide metrics to the global agencies and to contribute in the global suicide statistics (Shah et al. 2017; Arafat 2017; Chowdhury et al. 2018). WHO reported that the suicide rate for 2012 in Bangladesh was 7.8 per 100,000 population, 8.7 women per 100,000 population and 6.8 men 100,000 population (World Health Organization 2014), which seems to be quite low than the actual rate. Similar rate was noticed in 2003 in a cross-sectional study in which the rate was found as 7.3 per 100 000 per year (Chowdhury et al. 2018). However, according to Economic and Social Commission for Asia and the Pacific (ESCAP), the rate was found about 30 per 100,000 of young adults every year in rural Bangladesh (Ruzicka 1998 cited in Begum et al. 2017b). A community-based study conducted by Feroz et al. in 2012 revealed that the suicidal rate was 128.8 per 100,000 populations per year in a specific district of Bangladesh, which seems to be much higher than the actual rate (Feroz et al. 2012). Other few studies reported the rate as 39.6 per 100,000 populations per year (Table 2) (Feroz et al. 2012; Qusar et al. 2009; Wu et al. 2012). Suicides were happening more in rural areas of Bangladesh, especially in Chuadanga, Jenaidah, Kustia, Meherpur, Jashore and Chandpur (Chowdhury et al. 2018; Shahnaz et al. 2017; Arafat 2017; Feroz et al. 2012). The country needs further larger studies to identify the near actual rate of suicides.

Table 1. List of Articles

SL	Author	Publication year	Study design	Type of article	Participants	Title	Summary
1	Arafat et al.	In press	Cross-sectional and observational	Original	320 news reports	Quality of online news reporting of suicidal behavior in Bangladesh against World Health Organization guidelines	Assessed the quality of online news reporting of Bangla news portal, which is the first study assessing the reporting quality against WHO guidelines
2	Arafat	In press	Observational	Correspondence (review)	N/A	Females are dying more than males by suicide in Bangladesh	Discussed the gender distribution of suicide in Bangladesh
3	Arafat et al.	2018b	Cross-sectional and observational	Original	358	Demography and risk factors of suicidal behavior in Bangladesh: A retrospective online news content analysis	Assessed the demography and risk factors of suicide by analysing online media reports
4	Arafat and Hossain	2018	Observational	Correspondence (Commentary)	3	Suicide during international sports events (football World Cup 2018)	Discussed the suicidality during major sports events such as World Cup Football
5	Arafat	2018a	Observational	Correspondence (Commentary)	N/A	Suicide prevention activities in Bangladesh	Discussed existing suicide prevention activities
6	Shah et al.	2018	Cross-sectional and observational	Original	56	Demography and risk factor of suicidal behavior in Bangladesh: A cross-sectional observation from patients attending a suicide prevention clinic of Bangladesh	Analysed the demography of patients of a suicide prevention clinic of Bangladesh
7	Arafat	2018b	Case report	Letter to the Editor	1	Suicide by intravenous kerosene: A case report in Bangladesh	Reported suicide by atypical means (intravenous kerosene)
8	Shah et al.	2017	Cross-sectional and observational	Original	271	Demography and risk factors of suicide in Bangladesh: a six-month paper content analysis	Assessed the demography and risk factors of suicide by analysing printed newspaper reports
9	Salam et al.	2017	Epidemiological	Original	1,169,593	The burden of suicide in rural Bangladesh: magnitude and risk factors	Discussed the impact and risk factors of suicide in rural areas of Bangladesh

Continued Table 1. List of Articles

SL	Author	Publication year	Study design	Type of article	Participants	Title	Summary
10	Ahmed et al.	2017	Systematic review		N/A	Suicide and depression in the World Health Organization South-East Asia region: a systematic review	Discussed the prevalence of depression amongst the suicide victims
11	Hasan et al.	2016	Case report		1	An unusual case of suicide attempt using intravenous injection of kerosene	Reported suicide by atypical means (intravenous kerosene)
12	Jordan et al.	2014	Scoping review		N/A	Suicide in south Asia: a scoping review	Discussed different parameters of suicide
13	Debnath et al.	2014	Case report		1	A case of acute insulin poisoning with attempt to suicide	Discussed suicide by atypical means (insulin)
14	Masrekhy et al.	2013	Epidemiological	Original	819,429	Suicide kills more than 10,000 people every year in Bangladesh	Explored the epidemiology of suicide in Bangladesh
15	Halim et al.	2010	Cross-sectional and observational	Original		Various factors of attempted suicide in a selected area of Naogaon district	Discussed the factors of attempted suicide in district of Bangladesh
16	Quader et al.	2010	Cross-sectional and observational	Original	1862	Post mortem outcome of organophosphorus compound poisoning cases at Mymensingh Medical College	Mentioned the post-mortem finding of poisoning deaths
17	Khan	2002	Review		N/A	Suicide on the Indian subcontinent	Reviewed the different parameters of suicide
18	Wu et al.	2012	Review		N/A	Suicide methods in Asia: implications in suicide prevention	Discussed different parameters of epidemiology
19	Knipe et al.	2015	Systematic review		N/A	Association of socio-economic position and suicide/attempted suicide in low- and middle-income countries in South and South-East Asia – a systematic review	Reviewed the association between socioeconomic status and suicidal behaviour
20	Bachman	2018	Review		N/A	Epidemiology of suicide and the psychiatric perspective	Discussed the different parameters of epidemiology

Continued Table 1. List of Articles

SL	Author	Publication year	Study design	Type of article	Participants	Title	Summary
21	Suryadevara and Tandon	2018	Editorial		N/A	Decriminalization of Attempted Suicide across Asia- It Matters!	Discussed the status and importance of decriminalization of suicide
22	Tandon and Nathani	2018	Editorial		N/A	Increasing suicide rates across Asia - a public health crisis	Discussed the recent data with the men-to-women ratio
23	Khan	2005	Review		N/A	Suicide prevention and developing countries	Discussed the suicide prevention status
24	Feroz et al.	2012	Epidemiological survey	Original	12,422	A community survey on the prevalence of suicidal attempts and deaths in a selected rural area of Bangladesh	Surveyed the suicidal rate and epidemiology of suicide small area
25	Reza et al.	2013	Case control and cross-sectional	Original	230 (113 cases and 117 controls)	Risk factors of suicide and parasuicide in rural Bangladesh	Analysed the risk factors of suicide in Bangladesh
26	Begum et al.	2017a	Cross-sectional and observational	Original	2,133	Suicidal death due to hanging	Assessed the suicidal deaths by hanging
27	Arafat	2017	Review		N/A	Suicide in Bangladesh: a mini review	Reviewed the epidemiology of suicide in Bangladesh
28	Shahnaz et al.	2017	Scoping review		N/A	Suicidal behaviour in Bangladesh: a scoping literature review and a proposed public health prevention model	Reviewed the suicidal behaviour elaborately
29	Ahmed and Hossain	2010	Cross-sectional and observational	Original	145	Hanging as a method of suicide: retrospective analysis of postmortem cases	Analysed the post-mortem reports of hanging deaths
30	Ali et al.	2014	Cross-sectional and observational	Original	334	Suicide by hanging: a study of 334 cases	Analysed the post-mortem reports of hanging deaths
31	Arafat et al.	2018a	Cross-sectional and observational	Original	121	Psychiatric morbidities and risk factors of suicidal ideation among patients attending for psychiatric services at a tertiary teaching hospital in Bangladesh	Discussed the psychiatric morbidities and risk factors amongst suicidal ideators
32	Arafat and Kabir	2017	Editorial		N/A	Suicide prevention strategies: which one to consider?	Discussed different strategies of suicide prevention

Continued Table 1: List of Articles

SL	Author	Publication year	Study design	Type of article	Participants	Title	Summary
33	Qusar et al.	2009	Cross-sectional and observational	Original	44	Psychiatric morbidity among suicide attempters Who needed ICU intervention	Discussed psychiatric morbidities among the attempters
34	Begum et al.	2017b	Community-based cross-sectional survey	Original	2,476	Prevalence of suicide ideation among adolescents and young adults in rural Bangladesh	Assessed suicidal ideations among adolescents
35	Chowdhury et al.	2018	Review		N/A	Bans of WHO Class I pesticides in Bangladesh—suicide prevention without hampering agricultural output	Discussed the effect of bans of pesticides on suicide

Table 2. Suicide rate

SL	Author	Publication year	Type of Article	Suicide rate (per 100,000)
1	WHO	2014	Report	7.8
2	Wu et al.	2012	Review	39.6
3	Feroz et al.	2012	Original	128.8
4	Qusar et al.	2009	Original	39.6
5	Begum et al.	2017	Original	30
6	Chowdhury et al.	2018	Review	7.3

Women are dying more than men

Repeated researches revealed the reverse gender pattern in Bangladesh in which women are dying more than their men counterparts, although exact gender ratio is yet to reveal (Tandon & Nathani 2018; Bachmann 2018; Arafat in press). Similar pattern has been noticed in China also, where women are dying more (Tandon & Nathani 2018; Bachmann 2018). Moreover, other reviews revealed that the gender ratio is lower in overall sub-continent and the ratio as 0.43–0.83:1 in Bangladesh (Jordan et al. 2013; Arafat 2017; Shahnaz et al. 2017; Arafat in press). Others revealed the men-to-women ration as 0.80:1 (Tandon & Nathani 2018; Bachmann 2018). Various studies revealed women preponderance repeatedly, namely, 70% were women in the study conducted by Shah et al. (2018), 58% were women in the study conducted by Arafat et al. (2018a), 58% were women in the study conducted by Shah et al. (2017), 60% were women in Arafat et al. (2018b) study, 59% were women in Qusar et al. (2009) study, 74% were women in the community-based study by Feroz et al. (2012), 62% were women in Begum et al. (2017a) study and 55% were women in Mashreky et al. (2013) study (Arafat in press). The women's dominance might be the effects of complex interactions between patriarchal societal structure, perceived self-status of women, passive gender role, lower educational attainment, adolescence marriage, having child in teenage, lower economic freedom, fewer freedom in partner choice and few other enduring socio-cultural factors (Arafat in press; Arafat 2017; Feroz et al. 2012; Reza et al. 2014).

Third decade of life was found as the most vulnerable period of life revealed by previous researches (Arafat in press). Early reviews revealed persons of 20–30 years persons are dying more (Khan 2002; Arafat 2017). Begum et al. (2017a) found that about 47% of respondents were between 21 and 30 years, Mashreky et al. found that the median age was 25 years, Shah et al. (2018) found that about 54% of the respondents were within 18–25 years, Arafat et al. (2018) found that about 60% of respondents were below 30 years of age, Shah et al. (2017) found that about 61% of the respondents were below 30 years of age, Feroz et al

Table 3. Methods of suicide

SL	Author	Publication year	Type of Article	Sample size	First method	Second method
1	Arafat et al.	2018b	Original	358	Hanging (61%)	Poisoning (13%)
2	Shah et al.	2018	Original	83	Hanging (47%)	Poisoning (37%)
3	Shah et al.	2017	Original	271	Hanging (82%)	Poisoning (8%)
4	Salam et al.	2017	Original	38	Hanging (59%)	Poisoning (31%)
5	Masrekhy et al.	2013	Original	61	Poisoning (62%)	Hanging (31%)
6	Shahnaz et al.	2017	Review		Poisoning	Hanging
7	Arafat et al.	2018a	Original	47	Hanging (55%)	Poisoning (19%)
8	Qusar et al.	2009	Original	44	Poisoning and overdose (95%)	Hanging (5%)
9	Chowdhury et al.	2018	Review	311 208	Poisoning (37%)	Hanging (30.5%)
10	Halim et al.	2010	Original		Poisoning (77.5%)	

(2012) found that 43% of the respondents were between 20 and 29 years, Qusar et al. (2009) found that 75% of the suicide attempters were below 30 years of age (Arafat in press). The global trend of suicide based on the nuptiality found that single, unmarried persons have been dying, whereas more married persons have been dying by suicide in Bangladesh (Mashreky et al. 2013; Arafat 2017; Knipe et al. 2015; Ahmed & Hossain 2010; Ali et al. 2014).

Methods of suicide

Choice of method of suicide is affected by intricated interaction of factors such as culture, religion, gender, personal belief, occupation, educational status, age and other related factors (Arafat 2018b; Arafat 2017). Hanging and poisoning are the common methods of suicide with recent trends of hanging prominence. A study from data of Bangladesh Police Statistics Department between 1996 and 2014 revealed that intentional pesticide self-poisoning was the most common cause (37.1%) of suicide, followed by hanging (30.5%) (Chowdhury et al., 2018). However, the authors mentioned that the trend of suicidal deaths by poisoning has been reducing and suicides by hanging have been increasing (Chowdhury et al. 2018). Another recent review found that intentional poisoning was the most common method followed by hanging in both gender (Shahnaz et al. 2017). One more study involving 61 respondents found that intentional poisoning was the most common method (62% (38) of the respondents), followed by hanging (31%) (Mashreky et al. 2013); another study found poisoning as the most common method (77.5%) (Halim et al. 2010). A study conducted in rural areas of Bangladesh found hanging as the most common method (59%), followed by poisoning (31%) (Table 3) (Salam et al. 2017). Study from suicide prevention clinic of 83 attempts found hanging as the commonest method (47%), followed by intentional poisoning (37%) (Shah et al. 2018). Another clinical study of 47 respondents with suicidal ideation revealed hanging as the commonest preferable method (55%), followed by poisoning (19%) (Arafat et al. 2018a). Study analysing the newspaper contents of 271 suicides found hanging in about 82% cases, followed by poisoning in about 8% of the cases (Shah et al. 2017). One more study that analysed 358 reports of online news portal found hanging in 61% of the reports, followed by poisoning in about 13% of the respondents (Arafat et al. 2018b). Another study of 44 intensive care unit admitted patients after suicidal attempts found poisoning as the commonest method (Qusar et al. 2009). Other methods are burning, drowning, jumping in front of train, fall from height, firearms, electric shock and cut injury (Salam et al. 2017; Shah et al. 2018, 2017; Arafat et al. 2018a,b). Atypical methods also noticed in the country such as intravenous kerosene (Hasan et al. 2016; Arafat 2018b) and intravenous insulin (Debnath et al. 2014).

Risk factors and preventive initiatives

Multiple studies revealed somewhat similar risk factors in Bangladesh. In 2012, a community-based study conducted by Feroz et al. found about 63% of suicides were proximally related with emotional events noticed within the family (Feroz et al. 2012; Shahnaz et al. 2017). Another study conducted in rural area revealed about 65.5% of suicides were related with emotional factors and again the factors were found within the family (Reza et al. 2013). A recent review mentioned other risk factors obtained from studies in which more than half of the suicides (51% and 57%) were related to emotional factors that were prevailed within the family (Shahnaz et al. 2017).

Another review unveiled that the most common risk factor of suicide was marital discord followed by quarrel amongst the family members (Arafat 2017). A study analysing the newspaper contents found that about two-thirds of the risk factors were found within the family, mostly, marital discord followed by discord with family members (Shah et al. 2017). Another study that assessed online media portals found emotional risk factors as major issues, that is, affair-related issues were mentioned in about 14%, marital and familial discord in about 22% of suicides (Arafat et al. 2018a). A study assessing the decisive moment revealed that about 81% of the attempts were happened impulsively (Arafat et al. 2018b). Besides, marital and family quarrel issue, few noticeable risk factors were reported, these were also driven by emotionally charged events. Suicide amongst supporters of favourite sports teams is also not so uncommon in the country (Arafat & Hossain 2018). Other reported risk factors were also related with strong emotions such as sexual harassment; failing in exam; not fulfilling immediate demand such as motor bike, bicycle, special dress in ceremonial occasions, special television channel watching and so on; extra-marital relationship issue; early marriage; death of partner; death of children; verbal abuse by teacher; love-affair-related complicacy; domestic violence; and divorce (Feroz et al. 2012; Reza et al. 2013; Shah et al. 2017; Arafat et al., 2018a). However, previous reviews revealed psychiatric morbidities are the vital issues in suicide as a risk factor globally. Repeated evidences stated that approximately 90% of persons who died by suicide had been suffering from not less than one mental illness, and depression has been considered as the main culprit disorder accounting about 60% of deaths (Malakouti et al. 2015; Mann et al. 2005). Conversely, psychiatric illness as a risk factor of suicide is under focused and has not been considering as an important risk factor in the country (Feroz et al. 2012; Arafat 2017; Qusar et al. 2009). Very few researchers studied mental illness as a risk factor and very few proportions of the risk factors were found in that domain (Qusar et al. 2009; Arafat 2017; Shah et al. 2017; Arafat et al. 2018a,b; Feroz et al. 2012; Reza et al. 2013). A systematic review revealed that only 7% of the suicide victims/attempters had depression (Ahmed et al. 2017). Amongst the patients admitted in intensive care unit after suicidal attempt, mental illness was reported in about 59% of the respondents (Qusar et al. 2009); another study found that it was about 6% (Arafat et al. 2018a). However, depression was found in about 26% of respondents as reported by another study (Arafat et al. 2018b). These variations can be accounted by considering multiple factors such as lack of adequate researches exploring the relationship with mental disorder and suicide, cultural and geographical variation of risk factors, religious beliefs, strong social closeness and overall educational status and might be new other issues those demand further research.

In spite of huge necessity, few activities have been started in the country to prevent suicides. Amongst them, suicide prevention clinic has been dealing with the clinical populations, whereas the crisis-releasing hotline (Kan Pete Roi) has been listening the distressed people, although these are inadequate (Arafat 2018a). A newly formulated society is yet to start any preventive activities. Available global evidences revealed numerous prevention strategies that have been tested and trusted as effective in preventing suicide (Zalsman et al. 2016; Mann et al. 2005). However, no single strategy has been found as universally effective and superior than others (Arafat and Kabir 2017). As a significant portion of risk factors are related with immediate emotionally charged events, Bangladesh should really look for strategies that can support the distressed person immediately. The available hotline (Arafat 2018a) can be an effective option to ventilate the emergencies; however, it is yet to be popularised in the country. Health promotional activities focusing to make aware the people conscious regarding moments of life can be fruitful. Further multilateral research is necessary to identify the risk factors and the relationship of risk factors with existing biopsychosocial aspect of suicide and to sort the perfect, culturally customised prevention strategy, ensuring the maximum utilisation of available resources.

Media and suicide in Bangladesh

Recent research has been coming out engaging the media in research in Bangladesh. Both print and online portals have been scrutinised in recent days in the country, Shah et al. (2017) scrutinised the printed paper contents to analyse the demography and risk factors of suicide. Arafat et al. (2018b) dissected suicide news published in online portals and looked for the demography and risk factor of suicide. The quality of published reports of the analysis revealed poor media reporting status, which was assessed against WHO guideline. The reporting status revealed poor quality when assessed against WHO suicide reporting guidelines in Bangla. Unnecessary details of the victims, methods, life events and mono-causal explanations were declared very frequently. Educational approaches were fundamentally absent (Arafat et al. in press).

Future directions

More research to explore the suicides in Bangladesh is a time-demanded issue to estimate suicide metrics with quality

data. National suicide database and suicide surveillance is an important consideration for this huge population. Changes in the legal system to decriminalise suicide in the country should be considered as immediate priority, which has been already done in nearby Asian countries and many other developed countries (Arafat et al. in press; Suryadevara & Tandon 2018). Decriminalisation would help to destigmatise the problem, increase the proper help-seeking behaviours for suicidality and demolish the undue legal harassments. Finding out the appropriate prevention strategy for the country is an immediate necessity to formulate, initiate, implement and evaluate its effectiveness. Multisectoral collaboration within the country amongst clinicians, social scientist, researchers, funders, media professionals, social workers, voluntary organisations, non-governmental organisation, funders, government and/or any organisation connected with suicidality in the country. International organisations should come forward to alleviate the grave situation on suicide in Bangladesh.

The review included only articles in English languages readily available on Internet search, which could exclude potential other articles. The author did not include the grey literatures for the review, which could exclude bunch of publications those published in the printed journals of Bangladesh. The list of articles was checked and cross-checked by the same author, which could be a source of bias. Inclusion and search of other databases could reveal more articles.

In spite of the limitations, current review critically discussed vital areas of suicide in Bangladesh. To the author's best knowledge, this is the first systematic review analysing suicidal metrics in Bangladesh, which recommends the decriminalisation of suicide in the legal system of the country, establishment of national suicidal surveillance, national suicide databases and more multilateral collaboration on suicide research in Bangladesh.

CONCLUSIONS

Suicide is an under-attended problem in Bangladesh, where the actual rate is yet to come out and quality data is a real challenge. Women are dying more than the men, and early adulthood (20–30 years) is the most vulnerable time of life. Hanging and intentional poisoning are the prime methods of suicide with gradual decrease in poisoning. Majority of risk factors are prevailed within the family. Prevention activities have been started but yet to make footprints. Decriminalisation and suicide surveillance are the top priorities in the country.

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CONFLICT OF INTEREST

None

DECLARATION OF ETHICS

The study was conducted by complying the declaration of Helsinki 1964. The article reviewed the already published articles. So, the author did not seek ethical clearance.

DECLARATION OF INFORMED CONSENT

Not applicable.

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AUTHOR'S CONTRIBUTION

The author has the sole contribution in every step of the study.

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