

Does media influence suicide attempt in people from the rural background?

Bharathi G^{1*}, Punith M², Santosh SV³

¹Assistant Professor, ²Senior Resident, ³Professor and HOD, Dept. of Psychiatry, Hassan Institute of Medical Sciences, Karnataka, India

***Corresponding Author: Bharathi G**

Email: drbharathig74@gmail.com

Abstract

Introduction: Suicide is a serious public health problem. Many factors are known to influence suicide. Much has been studied about the influence of media on suicide attempters. Less studied is the effect of media from a rural background.

Aim: To study the profile of suicide attempters from a rural background and the role of media.

Materials and Methods: This study was undertaken in a General Hospital Psychiatry unit attached to Government Medical College. Total of 189 medically stable suicide attempters with the rural background was included in the study. The profile of the participants influenced by media was studied. SPSS version 20.0, was used for descriptive and inferential statistics.

Results: One hundred and eighty-nine participants were included. Based on the type of influence, three groups were formed [influenced by media (television) (n=37) / influence by other attempters (n=57) / own inner feelings (n=95)] who differed significantly with respect to age ($\chi^2= 4.134, p=0.018$) and type of attempt ($\chi^2= 6.619, p=0.037$). Regression analysis showed the presence of adjustment disorder predicting the person to be influenced by internal feelings to attempt suicide.

Conclusion: One in five was influenced by media. Majority of the participants were influenced by their own internal feelings. Influence of media was higher in the younger age group. There is a dire need to spread mental health awareness to prevent suicide attempts/suicides and to improve appropriate help-seeking behavior. Television was the common source of influence, hence using this media would help to create awareness in rural population.

Keywords: Suicide attempt, Media influence, Rural.

Introduction

Suicide is a serious public health problem which is preventable.¹ Many factors are known to influence suicide.² Some of these are modifiable whereas others are fixed.³ Many have studied the Werther (provoking suicidal behaviors) and the Papageno (protective against suicidal behavior) influence of media on the suicide attempters.⁴⁻⁷ Studies have shown an impact of reporting celebrity suicides on increasing suicide attempts/deaths by suicide.⁸⁻¹⁰ Media has also been shown to play a role in the dispensing of information about novel suicide methods.¹¹ Age and gender is a known factor for the modeling effect of media coverage on suicide. People living in rural areas are found particularly at risk of getting influenced by television.¹² However, there are many studies showing the change in suicide attempts after the publication of suicide-related information in public media.¹³ Less often, the suicide attempters themselves are assessed to find out what influenced their suicidal behaviour.¹⁰ Hence the current study was undertaken to assess the suicide attempters' own opinion regarding what mainly influenced their decision to attempt suicide. In addition, India has a predominantly rural population,¹⁴ we aimed at assessing the profile of suicide attempters from rural background.

Materials and Methods

This study was undertaken in a General Hospital Psychiatry unit attached to Government Medical College. This study is a part of the ongoing 'prospective study of suicide attempters'. The study period was of 3 months (1st Feb 2017 to 30th April 2017). Sampling was done using convenient sampling technique. Ethical clearance was obtained from the Institutional Ethical Committee. Suspected suicide

attempters referred from the medicine department for psychiatric evaluation were considered for inclusion in this study.

The Inclusion Criteria: a) medically stable patients with overdose/poisoning/ hanging /other forms of self-injurious behavior referred for psychiatric evaluation, b) those accompanied by the reliable informant to give relevant information. c) those who gave written informed consent to participate after explaining the study.

Exclusion Criteria: a) those under police custody due to various reasons. b) those not willing to give consent for the study.

Two hundred and sixty-one suspected suicide attempt patients were registered in the three months study period. Nineteen of them either did not consent or were not accompanied by their informant. Two hundred and forty-two participants were enrolled in the study. Twenty-seven out of the 242 were excluded as they denied any suicidal intentions and mentioned the incident as accidental. Two hundred and fifteen participants with actual suicide attempt remained. Further, among the 215 participants, twenty-six were excluded as they were from an urban background. Finally, a total of 189 subjects who were from a rural background were included in the analysis.

Tools: A semi-structured pro forma specially designed for the study, Mini International Neuro-psychiatric Interview (MINI)¹⁵ to make DSM-IV psychiatric diagnosis and Suicide Intent Scale (SIS)¹⁶ to assess the suicide intent and type of attempt (planned or impulsive) were used.

Semi-structured Performa: This was used to collect socio-demographic data information (age, gender, marital status, family type, education) of the participant. Suicide-related factors (mode of attempt, number of attempts, and location

of attempt) was taken. The presence or absence of any event which precipitated the suicide attempt was noted. The semi-structured pro forma also included information regarding what was the source of their information regarding the knowledge of the suicide attempt and the mode of suicide attempt or in other words 'how did the person get the idea?' of attempting suicide. The options mentioned were media / other attempters / felt so or felt like ending life / any other. When the mention of media was answered affirmatively, a specific question as to which media influenced (television programs/radio/cinemas/internet source/others) was also noted. Based on what influenced the person's suicide attempt, the sample was divided into three groups for comparison i.e., 1) those who were influenced by media for their attempt, 2) those influenced by other attempters, and 3) those who were not influenced by any of the above, this group consisted of those who said that they attempted as they 'just felt so' or 'felt like ending their life'. There was no participant with any other responses apart from the three mentioned above. Hence comparison was made between these three groups.

Mini-International Neuropsychiatric Interview¹⁵ English version 5.0.0 (MINI) (Sheehan D et al, 1998): This was administered by the clinicians (any of the three Authors) to make DSM-IV psychiatric diagnosis. Major Depressive Episode (MDE) (Current, recurrent), MDE with Melancholic features (Current, recurrent), Dysthymia, Suicidality (Hypo)Manic Episode (Current, past), panic disorder (Current, Lifetime), Agoraphobia, Social Phobia (Social Anxiety Disorder), Obsessive-Compulsive Disorder, Post-traumatic stress disorder, Alcohol Dependence, Alcohol Abuse, Non-Alcohol substance Dependence/Abuse. Psychotic disorders (Current, Lifetime), Anorexia Nervosa and Bulimia Nervosa, Generalized Anxiety disorder, Antisocial Personality disorder are included in the diagnosis.

For the purpose of this study, the diagnosis of Major depressive episode, Dysthymia, Manic episode, Alcohol dependence/abuse [under one heading Alcohol use disorders (AUD)] were considered during the analysis separately. The rest of the diagnosis including any other physical illnesses was clubbed under the category of other diagnoses. The diagnosis of Adjustment disorder was made according to DSM-IV Diagnostic Criteria¹⁶ as there were participants who satisfied these criteria.

Suicide Intent Scale (SIS)¹⁷ (Beck A et al, 1974): this scale consists of 20 items, each scored from 1 to 3. For the purpose of scoring the severity, items 1 to 15 are considered which gives a score range between 15 and 45. SIS total score was used to assess the severity of suicide intent of the patients. Participants were categorized based on the severity of intent. As per the instructions in the SIS, Score of 15-19 was scored as low intent, 20-28 as medium intent and more than or equal to 29 as high intent. For the purpose of our study, data regarding the type of attempt (impulsive or planned) was collected using the score on the 15th question of the SIS. The score of 1 and 2 were considered as 'impulsive', score 3 considered as 'planned' attempt.

Statistical Analysis

Data analysis was done using SPSS v 20.0. The three groups divided based on the influence which impacted the suicide attempt were compared using ANOVA and χ^2 test. Binomial logistic regression was used to predict the effect of independent variables on the dependent variable. Independent variables (suicide type - planned or impulsive, adjustment disorder) were used to predict the type of influence [internal feeling of ending life or external means (media / other attempters taken together)] taken as the dependent variable.

Results

One hundred and eighty-nine participants who were from a rural background were finally included in the analysis. The majority (50.26%) of the attempters were influenced by their own feeling of ending life followed by influence by other attempters (30.16%) and lastly by the media (19.57). influence by media consisted mainly on television programs (daily serials or cinemas). There was no participant who mentioned internet access as a source of information, which was understandable taking into account that the sample consisted of the rural population. Radio, which is a common means of communication in rural population, was not mentioned as influencing their attempt.

Comparison of various socio-demographic factors between the three groups (Table 1) When comparison was made between the three groups based on how the idea of the attempt came to participant, there was significant difference between the groups with respect to the age, with those in the media influenced group lesser than 30 years of age. There was no significant difference between the groups when other socio-demographic factors were considered.

Table 1: Comparison of various socio-demographic factors between the three groups

Variable	Media (n= 37)	Other attempters (n=57)	Other (n=95)	Test Statistics	p-value
Age [mean (SD)]	27.243 (8.7)	33.842 (11.012)	31.042 (11.534)	F test = 4.134	0.018
Gender [Frequency (%)]					
Male	19 (51.35)	23 (40.35)	39 (41.05)	χ^2 test =1.363	0.506
Female	18 (48.65)	34 (59.65)	56 (58.95)		
Marital status					
Married	22 (59.46)	41 (71.93)	72 (75.80)	χ^2 test =4.741	0.314
Separated	3 (8.11)	2 (3.51)	2 (2.10)		
Unmarried	12 (32.43)	14 (24.56)	21 (22.11)		
Family type					
Nuclear	31 (83.78)	40 (70.17)	69 (72.63)	χ^2 test =6.744	0.345
Extended	1 (2.70)	2 (3.51)	3 (3.16)		
Joint	5 (13.51)	13 (22.81)	23 (24.21)		
Living alone	0 (0.0)	2 (3.51)	0 (0.0)		
Education [Frequency (%)]					
Illiterate	3 (8.11)	9 (15.79)	13 (13.68)	χ^2 test =9.118	0.332
Primary	11 (29.73)	22 (38.60)	30 (31.58)		
High school	10 (27.03)	19 (33.33)	34 (35.79)		
PUC	9 (24.32)	4 (7.02)	14 (14.74)		
Degree	4 (10.81)	3 (5.26)	4 (4.21)		

p-value significant at < 0.05

Comparison of various suicide attempt related factors between the three groups (Table 2): There was a significant difference between the three groups with respect to the type of the attempt. None of the other factors showed any difference.

Table 2: Comparison of characteristics of the suicide attempt between the three groups

Variable	Media (n= 37)	Other attempters (n=57)	Other (n=95)	Test Statistics (χ^2 test)	p-value
Mode of attempt					
Poisoning	26 (70.27)	51 (89.47)	77 (81.05)	7.846	0.097
overdose	10 (29.03)	4 (7.02)	17 (17.89)		
Hanging	1 (2.70)	2 (3.51)	1 (1.50)		
Number of attempts					
One	33 (89.19)	46 (80.70)	79 (83.16)	5.119	0.275
Two	2 (5.405)	8 (14.04)	15 (18.79)		
≥ three	2 (5.405)	3 (5.26)	1 (1.05)		
Location of attempt					
Home	28 (75.68)	38 (66.67)	70 (73.68)	1.185	0.553
Outside	9 (24.32)	19 (33.33)	25 (26.32)		
Type of attempt					
Unplanned	26 (70.27)	50 (87.72)	83 (87.37)	6.619	0.037
Planned	11 (29.73)	7 (12.28)	12 (12.63)		
Suicide intent score					
Low intent	5	6	18	2.252	0.6895
Medium	16	27	42		
High	16	24	35		

p-value significant at < 0.05

Comparison of psychiatric diagnosis & presence of precipitating factor between the three groups (Table 3): there was no significant difference between the three groups with respect to any diagnosis except for Adjustment disorder. Interestingly participants who attempted suicide influenced by their own internal feeling were most often diagnosed with Adjustment disorder. There was no difference between the three groups with respect to the presence or absence of the precipitating event.

Table 3: Comparison of psychiatric diagnosis & presence of precipitating factor between the three groups

Diagnosis	Media (n= 37) Frequency (%)	Other attempters (n=57) Frequency (%)	Others (n=95) Frequency (%)	Test Statistics (χ^2 test)	p-value
AUD					
Present	13 (35.14)	33 (57.89)	41 (43.16)	5.313	0.0702
Absent	24 (64.86)	24 (42.11)	54 (56.84)		
MDD					
Present	11 (29.73)	11 (19.30)	15 (15.79)	3.291	0.1929
Absent	26 (70.27)	46 (80.70)	80 (84.21)		
Dysthymia					
Present	4 (10.81)	3 (5.26)	9 (9.47)	2.125	0.3456
Absent	33 (89.19)	54 (94.74)	86 (90.53)		
Adjustment disorder					
Present	6 (16.12)	11 (19.30)	32 (33.68)	6.098	0.0474
Absent	31 (83.78)	46 (80.70)	63 (66.32)		
Manic episode					
Present	1 (2.70)	0 (0.0)	1 (1.05)	1.565	0.4572
Absent	36 (97.30)	57 (100)	94 (98.95)		
Others					
Present	4 (10.81)	8 (14.04)	15 (15.79)	0.543	0.7621
Absent	33 (89.19)	49 (85.96)	80 (84.21)		
Precipitating factors					
Present	35 (94.59)	51 (89.47)	91 (95.79)	2.459	0.2925
Absent	2 (5.41)	6 (10.53)	4 (4.21)		

p-value significant at < 0.05

Binomial logistic regression analysis (Table 4): Logistic regression was used to predict the probability of the type of suicide and adjustment disorder to predict the influence on a suicide attempt. It showed that adjustment disorder added significantly to predict the influence (internal) (p=0.049).

Table 4: Binomial logistic regression to predict the effect of various factors (predictor variables) on the type of influence (dependent variable)

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	256.500 ^a	0.029	0.038

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP (B)	
								Lower	Upper
Step 1 ^a	Suicide type	-0.481	0.409	1.381	1	0.240	0.618	0.277	1.379
	Adjustment disorder	0.862	0.345	6.494	1	0.013	2.368	1.204	4.657
	Constant	0.234	0.176	1.775	1	0.183	1.264		

a. Variable(s) entered on step 1suicidetypecode.

p-value significant at < 0.05

Discussion

The current study is one of its kinds assessing the attempters themselves to find out what actually influenced their suicidal behavior. We found that there was almost equal representation of those who were influenced by internal cues ('felt like ending life') and those with external

influence (media or other attempters). This showed that 50% of the attempts were those which depend on the internal feeling of the person which has to be dealt with timely and tactfully. Remaining 50% of the attempts were influenced by external cues also called copycat suicides. Such attempts made following imitation of others, be it in real life (other

attempters) or media characters (real or imaginary) have been dealt with by various researchers.^{8,18-20} In our study on the participant from a rural background, all those influenced by the media were influenced by television programs, and not by any other mass media (internet/printed media) more prevalent in urban areas. Studies have highlighted this point that television influence is more prevalent in the rural population.¹² Television is also influential in spreading the knowledge about the mode of suicides which can influence on the viewers.²¹ The portrayal of suicide / suicidal behavior in the television is known to exert a negative influence.²² It should also be kept in mind that with the changing trend and increasing spread of the internet, there is a possibility of these also to influence this population in the near future. It is to be noted that radio being a commonly used mass media among the rural population has apparently not influenced any of our participants. In contrast, other authors have found radio to exert its influence on suicide attempters.¹²

We found that the majority of the participants influenced by media were in the younger age group. Previous studies have also found that youngsters are at a higher risk of being influenced by media through imitation.^{10,23} The participants influenced by media did not differ significantly from those who were influenced by other attempters or by their own internal feeling on any other socio-demographic factors.

We also found that there was a number of planned attempts in those who were influenced by the media as against more number of unplanned attempts in those who copied other attempter or followed their own intuitions. This is a very interesting finding which points towards the fact that when the person is already planning an attempt, he/she finalizes the idea of 'suicide', influenced by media exposure to suicidal behavior, than in those who think of it impulsively. In other words, those who plan an attempt get easily influenced by the suicide-provoking material in the media. In our study, attempters influenced by media did not differ from the other two groups on any of the other suicide-related factors.

The current study also shows that adjustment disorder was significantly one of the predictors of those who attempted, influenced by their own internal feelings. Studies on women suicides have suggested that reducing the media portrayal of women committing suicide in response to stress and increasing depiction of coping skills to overcome stress would reduce suicides and the attempts in such situations.²⁴ Other psychiatric diagnosis did not significantly predict the type of influence leading to a suicide attempt. However, it is a known fact that psychiatric illness is a common risk factor for suicide.²³

To summarize the finding, we found that those who attempt suicide influenced by their own internal feelings are about 50%, equal numbers are also impacted by external influence either imitating other attempter or media characters. One in five attempters is influenced by media (television). Attempters who have planned attempts are at a higher risk of being influenced by media. Another risk factor for being influenced by media is those who are

younger than 30 years. Adjustment disorder is an important diagnosis predisposing persons to be influenced by their own 'feeling of ending life'. Thus highlighting those life stressors could put a person at risk for suicide attempt without media or other attempters' influences.

Conclusion

Equal representation of participants influenced by their own inner feelings and external influence in suicidal tendency is noted. One in five attempters was influenced by media. The younger population is at a higher risk of getting influenced by the media. There is a dire need to spread mental health awareness (illness, treatment, coping mechanism, and mental health-related recent legal amendments) to prevent suicide attempts /suicides and to improve appropriate help-seeking behavior. Television is the common source of influence, hence using this media would help to create awareness in rural population.

Limitations

Our study being hospital based, selection bias is one of the important limitations. We included only participants who were medically stable, hence more severely ill or with fatal outcome were excluded. The influence for their attempt would be different which could alter the results of the study.

Acknowledgments: Nil.

Source of Funding: Nil

Conflict of Interest: Nil

References

1. World health organization, suicide data: <https://www.who.int/Home/News/Factsheets/Detail/Suicide>. Last accessed on 03.03.2019
2. O'Connor RC & Nock MK. The psychology of suicidal behavior. *Lancet Psychiatry* 2014;1:73-85.
3. Bertolote JM, Suicide prevention: at what level does it work? *World Psychiatry* 2004; 3:3.
4. Niederkrotenthaler T, Voracek M, Herberth A, Til B, Strauss M, et al. Media And Suicide: Papageno v Werther effect. *BMJ* 2010;341:c5841.
5. Sisask M and Värnik A. Media Roles in Suicide Prevention: A Systematic Review. *Int J Environ Res Public Health* 2012;9:123-38.
6. Seeman MV. The Marilyn Monroe Group and the Werther Effect. *Case Rep J* 2017;1(1):004.
7. Stack S, Media coverage as a risk factor in suicide. *J Epidemiol Community Health* 2003;57:238-40.
8. Martin G, Media influence to suicide: The search for solutions. *Arch Suicide Res* 1998;4:51-66.
9. Cheng ATA, Hawton K, Lee CTC, Chen THH. The influence of media reporting of the suicide of a celebrity on suicide rates: a population-based study. *Int J Epidemiol* 2007;36:6:1229-34.
10. Chen YY, Tsai PC, Chen PH, Fan CC, Hung GCL. Effect of media reporting of the suicide of a singer in Taiwan: the case of Ivy Li. *Soc Psychiatry Psychiatr Epidemiol* 2010;45:3:363-9. <https://doi/10.1007/s00127-009-0075-8>
11. Radhakrishnan R, Andrade C. Suicide: An Indian perspective. *Indian J Psychiatry* 2012;54:304-19.

12. Pirkis J, Blood RW, Francis C, Putnis P, Burgess P et al. Television Items On Suicide, The Media Monitoring Project: A baseline description of how the Australian media report and portray suicide and mental health and illness. 2001 www.mentalhealth.gov.au
13. Gould MS. Suicide and the Media. *Ann New York Acad Sci* 2001;932:200-24. <http://doi.org/10.1111/j.1749-6632.2001.tb05807.x>
14. Worldometers, India population live, www.worldometers.info. Last accessed on 03.03.2019
15. Sheehan DV, Lecrubier Y, Sheehan KH. The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10". *J Clin Psychiatry* 1998;59(Suppl 20):22-33. (Available from <https://www.uab.edu/resource/MINI> last accessed on 04.07.2018)
16. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, ed 4, 1994.
17. Beck AT, Schuyler D, Herman I. Development of suicidal intent scales. In: Beck AT, Resnik HLP, Lettieri DJ, editors. The prediction of suicide. Bowie, MD: Charles Press; 1974. pp. 45-56.
18. Goldney RD. Suicide: The Role of the media. *Aust New Zealand J Psychiatry* 1989;23:30-4.
19. Tor PC, Yeong Ng B, Guan Ang Y. The Media, and Suicide. *Ann Acad Med Singapore* 2008;37:797-9.
20. Burke AK, Galfalvy H, Everett B, Currier D, Zelazny J, Oquendo MA., et al. Effect of Exposure to Suicidal Behavior on Suicide Attempt in a high-risk sample of Offspring of Depressed Parents. *J Am Acad Child Adolesc Psychiatry* 2010;49(2):114-21. <https://www.ncbi.nlm.nih.gov>. Last accessed on 03.03.2019
21. Hawton K, Sue S, Deeks JJ, O'Connor S, Keen A, Altman DG, et al. Effects of a drug overdose in a television drama on presentations to hospital for self-poisoning: time series and questionnaire study *BMJ* 1999;318:972-7.
22. Pirkis Jane and Blood R Warwick-2010. Suicide and the entertainment media, A Critical Review. mindframe-media.com.info
23. Hawton K and Williams K. influence of the media on suicide. *Br Med J* 2002;325:1374-5.
24. Vijayakumar L. Suicide in women. *Indian J Psychiatry* 2015;57:233-8.