

Prevalence and correlates of suicidal expression among school attending adolescents in Pakistan

Pages with reference to book, From 28 To 29

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Madam, suicide is a serious global public health problem among adolescents. There are no nationally representative, population based surveys on suicide-expression among school attending adolescents in Pakistan. A recent study based on 90 countries reported a suicide rate of 7.4/100,000 adolescents aged 15-19 years old.¹ Suicide-expression has been reported to be associated with poverty, having been bullied, poor mental health, poor parental monitoring and involvement, and tobacco use.¹⁻⁴ To describe these factors association with self-reported suicide-expression in the past 12-months in Pakistani students of class 8-10 and its prevalence; I used data from the two-stage cluster sample-based nationally representative Global School-Based Health Survey (GSHS) for Pakistan, conducted by the Ministry of Health in collaboration with the World Health Organization and Centers of Disease Control and Prevention, United States, in 2009.⁵ Design-based analysis using STATA-12 was done using bivariate analysis and multinomial logistic regression; factors found statistically significant at $p < 0.05$ level on Chi-square test were used for multinomial logistic regression. Responses to GSHS question "During the past 12 months, did you ever seriously consider attempting suicide?", and "During the past 12 months, did you make a plan about how you would attempt suicide?" were used to determine suicide-expression. Suicide-expression was defined as either having 'suicide-ideation' or 'suicide-planning' in the past 12 months. The overall prevalence of suicide-ideation alone was 3.3% [95% confidence interval (CI): 2.6%, 4.0%] (n = 5095), while prevalence of suicide-planning (with or without suicide-ideation) was 7.6% (95% CI: 6.4%, 8.8%).

Table-1: Survey respondent's demographic attributes, and associations with suicidal expression in bivariate and multivariate analyses.

| Factor | Total n* (%)** | Chi-Square§ P-Value | Ideation§§§ | RRR§§§ (95% CI***) P-value | Plan§§§ | P |
|--|-------------------|------------------------|-------------------|----------------------------------|---------------------|---------|
| Age | | ns | | N/A | | N/A |
| Less than or equal to 13 years | 966 (22.7) | | | | | |
| 14 years | 2148 (38.9) | | | | | |
| 15 years | 1899 (35.3) | | | | | |
| 16 years or above | 172 (3.1) | | | | | |
| Sex | | ns | | N/A | | N/A |
| Male | 3897 (61.2) | | | | | |
| Female | 1287 (38.8) | | | | | |
| During the past 30 days went hungry because there was not enough food in home | | | 0.0271 | | | |
| Never or rarely | 4122 (80.9) | | 1 | | 1 | |
| Sometimes/Most of the time/always | 1012 (19.1) | | 0.97 (0.81, 1.55) | ns | 1.27 (0.93, 1.76) | ns |
| During the past 12 months, been so worried about something that could not sleep at night | | | <0.0001 | | | |
| Never/Rarely | 3754 (72.7) | | 1 | | 1 | |
| Sometimes, Most of the time, and Always | 1413 (27.3) | | 1.99 (1.20, 3.28) | 0.010 | 1.77 (1.36, 2.29) | < |
| Number of close friends | | 0.0046 | | | | |
| No close friend | 395 (8.0) | | 1 | | 1 | |
| 1 close friend | 1295 (26.7) | | 0.57 (0.34, 0.97) | 0.039 | 0.89 (0.39, 1.24) | ns |
| 2 close friends | 1206 (23.8) | | 0.51 (0.30, 0.87) | 0.016 | 0.44 (0.24, 0.79) | 0.008 |
| 3 or more friends close friends | 2228 (41.5) | | 0.45 (0.26, 0.80) | 0.009 | 0.52 (0.31, 0.89) | 0.019 |
| During the past 30 days, number of days missed classes/school without permission | | | 0.0081 | | | |
| Did not miss or 1 to 2 days | 4818 (93.9) | | 1 | | 1 | |
| 3 or more days | 334 (6.1) | | 1.85 (0.80, 4.24) | ns | 1.24 (0.71, 2.14) | ns |
| During the past 30 days, number of days been bullied | | | 0.0011 | | | |
| Not bullied | 2646 (58.7) | | 1 | | 1 | |
| Bullied on one or more days | 2030 (41.3) | | 1.30 (0.88, 1.93) | ns | 1.41 (1.001, 1.973) | 0.049 |
| During the past 30 days, parents/guardians checked to see that homework was done | | 0.0005 | | | | |
| Most of the time/always | 2630 (52.5) | | 1 | | 1 | |
| Never/rarely/sometimes | 2521 (47.5) | | 1.85 (1.07, 3.19) | 0.029 | 1.18 (0.93, 1.50) | ns |
| During the past 30 days, parents/guardians understood my problems | | 0.0022 | | | | |
| Never/rarely/sometimes | 2723 (54.7) | | 1 | | 1 | |
| Most of the time/always | 2410 (45.3) | | 1.02 (0.64, 1.61) | ns | 1.40(0.98, 2.00) | ns |
| During the past 30 days, parents/guardians really knew what I was doing with my free time | | ns | N/A | | N/A | |
| Never/rarely/sometimes | 2554 (49.4) | | | | | |
| Most of the time/always | 2552 (50.6) | | | | | |
| Number of days, during the past 30 days, I smoked cigarettes or used other tobacco products | | | <0.0001 | | | |
| Zero days | 4579 (89.9) | | 1 | | 1 | |
| One or more days | 612 (10.1) | | 1.81(1.11, 2.95) | 0.019 | 2.76 (1.93, 3.96) | <0.0001 |
| During the past 12 months, felt lonely | | 0.0073 | | | | |
| Never/Rarely | 3190 (61.3) | | 1 | | 1 | |
| Sometimes, Most of the time, and Always | 1943 (38.7) | | 0.83 (0.45, 1.53) | ns | 1.19 (0.87, 1.63) | ns |

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Totals vary across different factors owing to missing information by factor
 * Unweighted frequencies. ** Weighted percents. *** Confidence Intervals
 §Chi-Square Test for association between the factor and suicidal expression
 §§ Relative Risk Ratio for the association between suicidal expression and the factor.
 §§§ Suicide Ideation only or Suicide plan with or without ideation
 N/A - Factor not included in the final Multinomial Logistic regression model.

Table-1 provides the description of respondent's demographics, tobacco use and food deprivation, anxiety, having close friends, truancy, bullying, parental involvement, loneliness, and tobacco use; as well as their association with suicide-expression in bivariate and multivariate analyses. Age, sex, and parental involvement in terms of their knowledge about use of free time by the

respondent were not found to be statistically significant in bivariate analysis with suicide expression. Multivariate analysis found anxiety, number of close friends, parental involvement in terms of checking respondents' homework, and use of tobacco were found to be statistically significantly associated with suicide ideation. While anxiety, number of close friends, being bullied, and tobacco use were found to be statistically significantly associated with suicide plan.

Results augur the need for identifying those students who are at increased risk of attempting suicide and targeting suicide prevention health education campaigns in schools towards them in concert with teachers, parents, and general practitioners.

References

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