Distribution and correlations of school bully activities in a Central Indian district of Madhya Pradesh

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Title: Distribution and correlations of school bully activities in a Central Indian district of Madhya Pradesh.

Abstract:

Background- Bullying at schools is a known but neglected phenomenon. The study of its prevalence and correlates are essential to curb this aberrant behavior for building a healthy society.

Aim and objective: This cross-sectional evaluation was carried out to study the pattern through which bully activities manifests in students from 6th to 10th standards and find its positive and negative correlates.

Methods: candidates' selection was done through simple random and proportionate sampling methods to ensure equal presentation across the board i.e., urban vs rural, types of schools, gender and class(standard).

Results: 480 participants were studied both from rural and urban high schools (6th – 10th standard) in equal proportion. An equal representation (33.3%) of participants were ensured from the three groups of schools studied i.e., Girls, Co-education, and Boys, across gender (50%) and class(standard) 20% from each. The age ranged from 10 years to 18 years with the mean age at 13.9 years and a standard deviation of 1.66. From the total studied population 52% were bystanders, and 48% were engaged in some form of bully activities (20% victim, 16% bully victim, and 13% bully). While both bully and victim scores had strong interconnect (strong positive correlation $r = 0.259^{**}$, $p - 0.000$) their relation with prosocial and self-esteem scores were negative ($p – 0.001$). GHQ (General Health Questionnaire) score was not related to any of the above sub-scales.

Conclusion: Bully related behavior was predominant in the studied population. From the results, it appears that measures directed at improving prosocial behaviors and self-esteem of pupils can act as effective counters to the reported empathetic activities.

Key-words: School bully, prosocial, self-esteem, GHQ

Introduction: A sound psychosocial foundation at an early and formative stage is imperial for holistic personality development. Providing such an environment is one of the prime responsibilities of any sensible society. Schools considered as the learning towers are one such organization which has a great role to play in this regard. Under the right to education, one of the prime criteria is to ensure the physical and mental wellbeing of the students which can lead to effective learning and skill development. Providing a conducive and ameliorated surrounding for all children has become a bare necessity both legally and socially. Regardless of sustained legal and social reforms, we are far away from such a situation. At ground level school bully activities, a prominent psychosocial deranged situation is glaringly prominent. Through the present study, an attempt was made to expose this unruly behavioral issue and to identify the factors supporting and antagonizing it.

Methods: A cross-sectional evaluation of students from 6th to 10th standards(classes) was undertaken over 1 year from a western district of the Indian state of Madhya Pradesh to assess the prevalence, type, and relating factors to school bully activities. Total 6 schools, 3 each from urban and rural areas were randomly selected from the enlisted ones provided by district educational office. Of them 1 each was a boy's school, a girl's school and a coeducational school from both the chosen settings. The sample size of 480 participants was estimated by using a prevalence-based formula where the locally relevant literature
supported prevalence used was 31.4%, the margin of error fixed at 0.5%, an add-on of 10% was considered to cover the dropouts and a final roundup of number was carried out to the nearest feasible higher number. Bullying Prevalence Questionnaire (BPQ) to measure subscales such as Bully, Victim, and Pro-social Scales, Rosenberg's Self-Esteem Scale (RSES) to estimate participants self-esteem and General Health Questionnaire (GHQ-12) for evaluation of psychiatric morbidity were used as information collecting tools. Level of statistical significance was fixed at p ≤ 0.05, computer coded data were analyzed by SPSS Version 21 of IBM Inc. US.

Results: From 480 participants 240 each were from both urban and rural localities. 160(1/3rd) of the participants were from the three different types of schools (boy’s, girl’s and co-educational). An equal number of participants (96) were enrolled from each class (6th to10th). The mean age of participants was 13.9 year with a standard deviation of 1.66. Students involved bully activities were 232(48.3%) of which most i.e., 20.2% were victims. Prosocial candidates were 298(62.1%) and participants with normal or higher self-esteem were 68.4% and psychological distress was noted in 46.7%. The descriptive details of these variables are presented in table number 1.

Table Number 1.
Frequency distribution of studied variables

| Variable               | Frequency | Percentage (%) |
|------------------------|-----------|----------------|
| Residence              |           |                |
| Urban                  | 240       | 50             |
| Rural                  | 240       | 50             |
| Type of Schools        |           |                |
| Girls                  | 160       | 33.3           |
| Co-education           | 160       | 33.3           |
| Boys                   | 160       | 33.3           |
| Class/Standard         |           |                |
| 6th                    | 96        | 20             |
| 7th                    | 96        | 20             |
| 8th                    | 96        | 20             |
| 9th                    | 96        | 20             |
| 10th                   | 96        | 20             |
| Gender                 |           |                |
| Boys                   | 240       | 50             |
| Girls                  | 240       | 50             |
| Age groups             |           |                |
| 10-12 years            | 113       | 23.6           |
| 13-15 years            | 278       | 57.9           |
| 16-18 years            | 89        | 18.5           |
| Total Bullying population |         |                |
| 1. Only bully          | 60        | 12.5           |
| 2. Only Victim         | 97        | 20.2           |
| 3. Bully-Victim both   | 75        | 15.6           |
| Bystanders             | 248       | 51.7           |
| Sociality              |           |                |
| 1. Pro-social          | 298       | 62.1           |
| Social                 | 182       | 37.9           |
A closer look at the participant behavior provided the break up into bystanders (52%), victims (20%), Bully victims (16%) and bully (13%). The pie-chart in figure number 1 depicts these observations.

**figure Number – 1**

Pie-chart showing the distribution of participants in line with school behavior (rounded up to nearest non-fractioned %)

On Pearson correlation analysis Bully score and Victim score showed strong positive result ($r = 0.259, p \leq 0.001$) among them but both Prosocial and Self-esteem scores were negative relations with them ($p \leq 0.001$). GHQ – 12 score was not related to any of the above sub-scales (scores $p \geq 0.05$). The correlation table explaining these observations is presented in table number 2.

**Table Number - 2**

“Pearson Correlation” among bully score, victim score, pro-social score, self-esteem score and psychological distress score of the study participants.
| Scores | Value | Scores |
|--------|-------|--------|
|        | Bully score | Victim score | Pro-social score | Self-esteem score |
| Victim score |    r = 0.259*<br>p = 0.000 | - | - | - |
| Pro-Social score |    r = -0.154**<br>p = 0.001 | -0.107 | 0.019 | - |
| Self-esteem score |    r = -0.043<br>p = 0.351 | -0.194**<br>p = 0.053 | 0.202**<br>p = 0.871 | -0.06<br>p = 0.188 |
| GHQ score |    r = 0.080<br>p = 0.079 | 0.088<br>p = 0.053 | 0.007<br>p = 0.871 | -0.06<br>p = 0.188 |

r = correlation coefficient; * significant at p < 0.05; ** significant at p < 0.000 level

Types and sites of occurrence of bully activities: Bully activities manifested through verbal, psychological, and physical forms in that order. Verbal and physical bully was more site-specific and mostly materialized at fixed locations. Lesser varieties of psychological bullying (exclusion from groups and threats) mostly (56.9% and 53.1%) took place at fixed locations but sever forms (thefts of objects of poor or great values and extortion of money) was mostly opportunistic (no specific site preference noted). The respective number and percentages (in parenthesis) of these activities and their place of occurrences are presented in table number 3.

Table number 3

Distribution of Demonstrates of bullying concerning the place of occurrence

| Types of Bullying | Out of school | In the way to the classroom | In the classroom | In the bathroom | On playground | At eatery | No specific site | Multiple sites | One site only |
|-------------------|---------------|-----------------------------|------------------|-----------------|---------------|----------|-----------------|---------------|--------------|
| Psychological bullying |               |                             |                  |                 |               |          |                 |               |              |
| Exclusion from groups | 71 (14.8)     | 49 (10.2)                   | 55 (11.5)        | 13 (2.7)        | 73 (15.2)     | 12 (2.5) | 119 (24.8)     | 88 (18.3)     | 273 (56.9) |
| Threats | 102 (21.2)    | 40 (8.3)                    | 52 (10.8)        | 26 (5.4)        | 24 (5)        | 11 (2.3) | 154 (32.1)     | 71 (14.8)     | 255 (53.1) |
| Theft of objects of poor value | 52 (10.8)    | 12 (2.5)                    | 83 (17.3)        | 6 (1.2)         | 14 (2.9)      | 15 (3.1) | 245 (51.3)     | 52 (10.8)     | 182 (37.9) |
| Great Theft | 84 (17.5)     | 15 (3.1)                    | 25 (5.2)         | 8 (1.7)         | 9 (1.9)       | 9 (1.9)  | 295 (61.5)     | 35 (7.3)      | 150 (31.2) |
| Money extortion | 95 (19.8)     | 25 (5.2)                    | 18 (3.8)         | 4 (0.8)         | 12 (2.5)      | 15 (3.1) | 267 (55.6)     | 44 (9.2)      | 169 (35.2) |
| physical |               |                             |                  |                 |               |          |                 |               |              |
### Table

| Bullying          | Injuries | Physical aggressions | Verbal bullying |
|-------------------|----------|----------------------|-----------------|
|                   | 61 (12.7)| 32 (6.7)             | 27 (5.6)        |
|                   | 27 (5.6) | 4 (0.8)              | 95 (19.8)       |
|                   | 4 (0.8)  | 95 (19.8)            | 5 (1)           |
|                   | 5 (1)    | 156 (32.5)           | 100 (20.8)      |
|                   | 100 (20.8)| 224 (46.7)          |                 |
|                   | 25 (5.2) | 43 (9)               | 14 (2.9)        |
|                   | 14 (2.9) | 33 (6.9)             | 8 (1.7)         |
|                   | 8 (1.7)  | 223 (46.5)           | 52 (10.8)       |
|                   | 52 (10.8)| 205 (42.7)          |                 |
|                   | 24 (5)   | 69 (14.4)            | 3 (0.6)         |
|                   | 69 (14.4)| 51 (10.6)            | 14 (2.9)        |
|                   | 51 (10.6)| 37 (7.8)             | 222 (46.2)      |
|                   | 37 (7.8) | 221 (46)             | 221 (46)        |
|                   | 27 (5.6) | 45 (9.4)             | 8 (1.7)         |
|                   | 45 (9.4) | 50 (10.4)            | 11 (2.3)        |
|                   | 50 (10.4)| 135 (28.1)           | 141 (29.4)      |
|                   | 135 (28.1)| 204 (42.5)         | 204 (42.5)      |

*Figures in parenthesis represents percentage (%).

Discussion: Schools the dome of learning should be sanitized from all aspects so that the tender mind can learn and the persona groomed unhindered. Though much been said and done in this regard but still wide gaps exist. One such arena is existence of bullying at middle and high schools across the world. The legislations for ensuring safe learning environment are a far-reaching goal at least in present context. The situation is no good in developing countries including India. This study highlights pertinent correlates of this psycho-social apathy.

A bully prevalence of 48.3% as reported in the present study is a staggering number considering the time, we are living in. Dake JA et al. reported an overall prevalence of 49.8% in Irish pupils. T. Biswas et al. also reported a Global bully prevalence at 50% for school attending adolescents. The report by Biswas et al. is a recent one (2020) thereby making it worth mentioning.
The break of bully activities revealed the prevalence of victims at 20%, Bully victims at 16%, and bully at 13%. Bibou-Nakou & Markos also reported that between 15% to 30% of school children are either bullied or bully others\textsuperscript{15}. A higher victimization score is a thing of common occurrence followed by bully-Victim category who are involved in both ends of the activities i.e., sometimes getting bullied(victimized) and at other times bullying others. This attribute is related to the power equation at the time of the episode. The authorities can step in and discourage this power/group activities by a regular student and parental counselling and dismantling such group dynamics. Researchers across the globe have opined in similar lines \textsuperscript{10,14,15}.

While bully scores and victim scores were positively correlated, prosocial behaviour and high self-esteem were reported protagonist against them (table number 2). Pro-social pupils had high self-esteem (r, 0.202**) too. This was an encouraging and synergic sign. Schools need to work on strengthening these domains which can bring the bully burden down. J. Ashwin Rambaran et al. 2020 and a host of other researchers have reported with the same vest \textsuperscript{16-18}.

The most astonishing/encouraging observation of the study was no relation of pupils psychiatric score (GHQ 12) with vicious phenomenon.

Verbal bullying was noticed as a more frequent phenomenon which was followed by psychological and physical ones. Irrespective of their modality most bully activities happened in fixed locations (table number 3). Many researchers have emphasized on the comfort of place and existence of psycho-social power imbalance as it’s important contributors \textsuperscript{19-21}.

Strength and weakness: Robust sampling of participants by simple random and proportionate methods was its ‘main strength. This was adopted to counter bias. The weakness worth mentioning is that which is inherent to the cross-sectional design.

Study highlights:

- No relation of psychiatric morbidity with bully activates
- Protective effect of prosocial self-esteem score against school bully behaviour
- Strong inter relation (positive) between Bully and Victim scores

Conclusion: perpetual offenders are a part of every society. It is our role and responsibility to bring their number down through reformist measures. Though many such measures are in place for prevention of bullying at schools but the results are hardly impressive. Identifying the potential problem in terms of its manifestations and place of occurrence will give additional inputs to concerned authorities to be more vigilant, targeted and proactive. Additionally, encouraging and awarding prosocial and self-esteem acumen will be further rewarding in curbing this social evil. All efforts must be made to sustain the gain achieved by no entanglement of the differently-abled subject into these devilish activities.

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Conflict of interest: None

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Pie-chart showing the distribution of participants in line with school behavior (rounded up to nearest non-fractioned %)