

# Bullying and Sexual Harassment Among Adolescents: Prevalence, Patterns, and Predictors

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## Abstract

**Background:** Adolescence is a transition phase marked by profound biological, psychological, and social changes. These years often expose adolescents to various forms of peer harassment, including bullying and sexual harassment, which can significantly impact their development. Despite being highly prevalent worldwide, evidence from India remains sparse.

**Objectives:** The present study was conducted to estimate the prevalence and patterns of bullying and sexual harassment among school-going adolescents in Lucknow, Uttar Pradesh, and to identify key predictors associated with these forms of harassment.

**Methods:** A cross-sectional study was conducted among 800 adolescents (446 boys and 354 girls) studying in classes 9–12 across four randomly selected schools (two co-educational, one boys-only, and one girls-only). Multistage stratified random sampling was employed. A pre-tested, self-administered questionnaire was used, including socio-demographic details, the Olweus Bully/Victim Questionnaire, and the AAUW Sexual Harassment Survey. Data were analyzed using descriptive statistics, chi-square tests, and logistic regression.

**Results:** Bullying victimization was reported by 32.1% of participants, more common among boys (35.0%) than girls (28.0%). Sexual harassment was reported by 39.4% overall, with significantly higher prevalence among girls in co-educational schools (40.9%) compared to girls in single-gender schools (29.5%) ( $p < 0.05$ ). Emotional bullying (90.3%) was the most common type, followed by verbal bullying (61.5%), while sexual jokes (17.4%) and sexual rumours (14.9%) were the most common forms of sexual harassment. Logistic regression showed that adolescents with fewer than four close friends and those studying in co-educational schools had significantly higher odds of experiencing harassment.

**Conclusions:** Bullying and sexual harassment are highly prevalent among adolescents in India. School climate, gender context, and peer support are key determinants of vulnerability. Interventions must focus on fostering supportive peer environments, sensitizing teachers, and strengthening anti-harassment policies in schools.

**Keywords:** Bullying, Sexual harassment, Adolescents, Prevalence, Predictors, School health.

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## Introduction

Adolescence, defined by the World Health Organization (WHO) as the period between 10 and 19 years of age, is a critical developmental phase [1]. It is characterized by dramatic physical, psychological, and social changes, which increase vulnerability to peer-related issues. During this period, individuals strive to establish their identity, cope with new social roles, and manage peer influences.

Harassment in schools—particularly bullying and sexual harassment—poses significant challenges to adolescent well-being. **Bullying** is defined as repeated aggressive behavior intended to harm, involving a real or perceived power imbalance [2]. It includes verbal, emotional, physical, financial, and increasingly, cyber manifestations. **Sexual harassment** refers to unwelcome sexual advances, requests for sexual favors, or other verbal, nonverbal, or physical conduct of a sexual nature [3]. Both behaviors are pervasive globally and have been recognized as major psychosocial stressors for school-aged children.

Globally, the prevalence of bullying among adolescents has been reported in the range of 30–60% [4,5], while sexual harassment prevalence varies between 25–40% [6,7]. In India, though fewer studies are available, findings indicate comparable or even higher prevalence [8,9]. Harassment during adolescence is associated with immediate distress and long-term consequences such as poor academic performance, absenteeism, low self-esteem, and strained peer relationships [10,11].

Given the paucity of comprehensive studies in India, this study was conducted to explore the prevalence, patterns, and predictors of bullying and sexual harassment among adolescents in Lucknow, Uttar Pradesh.

## Objectives

1. To estimate the prevalence of bullying and sexual harassment among school-going adolescents in Lucknow district.
2. To describe the types and patterns of bullying and sexual harassment experienced.

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3. To determine predictors associated with harassment victimization.

**Materials and Methods**

**Study design and setting:** A school-based cross-sectional study was conducted across four intermediate schools in Lucknow district. Schools were stratified into boys-only, girls-only and co-educational; one boys-only, one girls-only and two co-educational schools were randomly selected for participation.

**Study population and sampling:** The study population included adolescents enrolled in classes 9–12. A sample size of 800 (200 per school) was determined using the formula for prevalence studies,  $n = [(z \ 1-\alpha/2) \ 2 * p *(1-p)]/d^2$ , taking anticipated prevalence as 31–36%, margin of error 7% and 95% CI, with an additional allowance for non-response. Within each participating school, probability proportionate to size sampling was used to divide the sample among classes 9–12, and systematic random sampling selected individuals within classes.

**Sampling Procedure:** A multi-stage stratified random sampling technique was used for the selection of schools. A comprehensive list of all intermediate schools registered with the Department of Education, Lucknow was charted. They were stratified into girls, boys, and co-ed groups, and one each from the single-gender schools and two co-ed schools were randomly selected (two schools were selected to maintain almost similar, comparable gender representation from each school type). Systematic random sampling was done after ‘probability proportionate to size’ sampling to select the participants from each class. If the total strength of the 4 classes was found to be less than 200, the simple random sampling was repeated to obtain a new school. Prior permission and informed consent were taken from the principal, and assent forms were signed by the participants. They were gathered in a room and were briefed about bullying and its various aspects. After assuring them about total confidentiality, they were handed the questionnaires, and their heights and weights were measured.

**Data collection tools:** A pre-tested, self-administered questionnaire included:

- (a) Socio-demographic variables;
- (b) Olweus Bully/Victim Questionnaire to assess bullying victimization [2]; and
- (c) AAUW Sexual Harassment Survey (14 items) to assess unwanted sexual behaviors [6].

Body Mass Index was calculated by using Quetlet’s Index formula.

Olweus Bully/Victim Questionnaire was developed by Dan Olweus in 1996. It assesses perpetration/victimization related to seven specific forms of bullying (verbal, exclusion, physical,

spreading false rumors, personal items stolen/damaged, threats/coercion, and harassment related to race). It is completed anonymously by students in a classroom. It consists of 40 questions for the measurement of bully/victim problems such as exposure to various physical, verbal, indirect, racial, or sexual forms of bullying/harassment; various forms of bullying other students; where the bullying occurs; pro-bully and pro-victim attitudes; and the extent to which the social environment (teachers, peers, parents) is informed about and reacts to the bullying. Typically, responses to the perpetrator and victim items are used to classify youths into non-bully-non-victim, victim, bully, and bully-victim groups. The Olweus Bully/Victim Questionnaire (OBVQ) is among the few with well-established psychometric properties in different countries (2). Cronbach reliability scores of this questionnaire are:  $\alpha = 0.85$  (victim scale) and  $\alpha = 0.87$  (bully scale).

The AAUW Sexual Harassment Survey is a 14-items questionnaire asking questions on “unwanted sexual behaviours” in the past few months with responses in an ordinal scale that can be dichotomized into ‘never’ and ‘ever’. Response to any one of the 14 items as ‘ever’ indicates sexual harassment victimization. Internal reliability of the 14 exposure items, tested with Cronbach’s alpha, was 0.86.

Participants provided written assent; school authorities provided permission. Confidentiality was ensured by separating assent forms from questionnaires.

**Operational definitions:** A respondent was considered bullied if they reported being victim of any behavior classified as bullying on the Olweus instrument at least once in the past year. Sexual harassment victimization was considered present if the participant answered ‘ever’ to any of the 14 AAUW survey items.

**Ethical considerations:** The Institutional Ethics Committee of King George’s Medical University, Lucknow, approved the study (Ref. 93rd ECM II-B P39). Participants were briefed, and written assent obtained.

**Statistical analysis:** Data were entered and analyzed using SPSS v24. Descriptive statistics were used to calculate frequencies, proportions, means and standard deviations. Associations were tested using chi-square tests; variables significant at  $p < 0.10$  in univariate analysis were entered into multivariable logistic regression to identify independent predictors. Statistical significance was set at  $p < 0.05$ .

**Results**

A total of 800 adolescents participated: 446 (55.8%) boys and 354 (44.2%) girls. Mean age was 15.2 years (SD ±1.2). Table 1 summarizes the socio-demographic profile.

**Table 1. Socio-demographic profile of study participants (N=800)**

Variable	Category	n (%)	Notes
Gender	Boys	446 (55.8%)	
Gender	Girls	354 (44.2%)	

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Mean age	Years	15.2 ± 1.2	
School type	Co-educational	400 (50.0%)	Two schools
School type	Single-gender	400 (50.0%)	One boys-only, one girls-only
Close friends	<4	300 (37.5%)	
Close friends	≥4	500 (62.5%)	Includes 4-5 and >5 categories

Prevalence: Overall, 257 (32.1%) reported bullying victimization in the past year, while 315 (39.4%) reported sexual harassment. Bullying was more common among boys (35.0%) than girls (28.0%). Sexual harassment prevalence was higher among girls in co-educational schools (40.9%) than in single-gender girls' schools (29.5%) ( $\chi^2$ ,  $p < 0.05$ ). Table 2 shows prevalence by school type and gender.

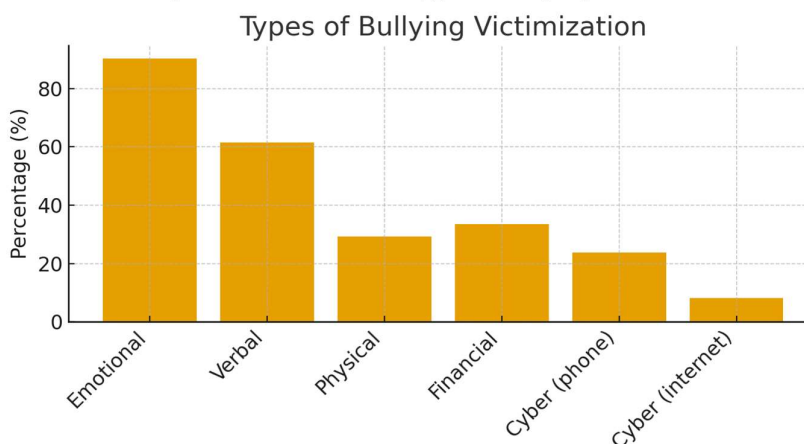
**Table 2. Prevalence of bullying and sexual harassment by gender and school type**

School Type	Boys n (%)	Girls n (%)	Bullying n (%)	Sexual Harassment n (%)
Single-gender (Boys)	66 (33.0%)	-	66 (33.0%)	83 (41.5%)
Single-gender (Girls)	-	65 (32.5%)	65 (32.5%)	59 (29.5%)
Co-educational (Boys)	92 (37.4%)	-	92 (37.4%)	101 (41.0%)
Co-educational (Girls)	-	34 (22.1%)	34 (22.1%)	63 (40.9%)
Overall	158 (35.0%)	99 (28.0%)	257 (32.1%)	315 (39.4%)

Types of bullying reported among those victimized (N=257). Table 3 shows the distribution.

Type of Bullying	n	%
Emotional	232	90.3
Verbal	158	61.5
Physical	75	29.2
Financial	86	33.5
Cyber (phone)	61	23.7
Cyber (internet)	21	8.2

**Figure 1. Distribution of types of bullying (N=257)**

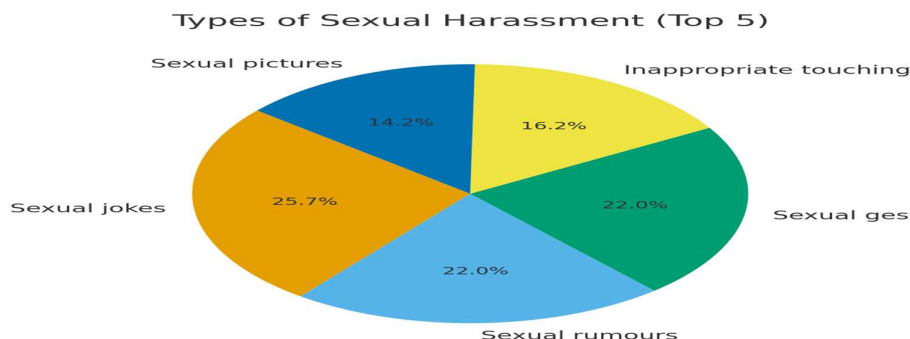


Types of sexual harassment reported (N=315). Table 4 shows the distribution.

Type of Sexual Harassment	n	%
Sexual jokes	139	17.4

Sexual rumours	119	14.9
Sexual gestures	119	14.9
Inappropriate touching	88	11.0
Sexual pictures	77	9.6
Sexual messages	26	3.3

Figure 2. Distribution of types of sexual harassment (N=315)



Predictors of harassment: On multivariable logistic regression, having fewer than four close friends and attending co-educational schools were associated with higher odds of harassment.

Table 5 shows adjusted odds ratios.

Predictor	Adjusted OR	95% CI	p-value
<4 close friends	2.10	1.40–3.10	<0.01
Co-educational school	1.80	1.20–2.60	<0.01
Male gender (for bullying)	1.50	1.10–2.10	0.02

**Discussion**

This cross-sectional study among 800 adolescents in Lucknow found high prevalence of both bullying (32.1%) and sexual harassment (39.4%). The observed prevalence aligns with prior Indian studies that have documented substantial harassment in school settings [19,6]. Internationally, similar magnitudes have been reported, underscoring that harassment in adolescence is a widespread public health concern [4,7].

Gender and school type: Bullying was reported more commonly by boys, which is consistent with findings by Ramya & Kulkarni and other Indian studies [19]. Sexual harassment, interestingly, showed higher prevalence among girls in co-educational settings, suggesting that mixed-sex school environments may increase exposure to sexually charged peer behaviors, an observation reported elsewhere [11,8]. The gender differences highlight the need for gender-sensitive prevention strategies in schools.

Types of harassment: Emotional bullying being the most common suggests that non-physical forms of harassment dominate adolescent peer interactions, which can be insidious in its impact on self-esteem and social functioning. The prominence of sexual jokes and rumours as the most common sexual harassment forms

points towards a culture of normalization of sexually demeaning behaviors in school contexts. These patterns mirror findings from McMaster et al. and Espelage et al. [4,12].

Predictors: Social connectedness, measured by number of close friends, was protective against harassment, consistent with Sapouna & Wolke's work on resilience [23]. The increased risk in co-educational schools may reflect greater opportunity for inter-sexual interactions and peer dynamics that facilitate harassment. These findings suggest that interventions strengthening peer support and fostering positive school climate could reduce harassment.

Policy and program implications: Schools should introduce comprehensive anti-harassment policies, regular sensitization sessions for students and staff, anonymous reporting mechanisms, and peer-support initiatives. Teacher training to recognize and respond to non-physical forms of harassment is particularly crucial.

Limitations: The study is cross-sectional and cannot establish causality. Self-reported data may be subject to recall and social desirability biases. The study was limited to four schools in one district, limiting

generalizability. Perpetrator characteristics were not collected due to school authorities' concerns.

### Conclusion

Bullying and sexual harassment are common among adolescents in Lucknow. School type, gender, and peer support influence vulnerability. Building supportive peer networks, improving school climate, and enforcing anti-harassment policies are recommended to protect adolescents from harassment.

### Strengths and Limitations

Strengths: Large sample size, stratified sampling across different school types, and use of validated instruments (Olweus OBVQ and AAUW Sexual Harassment Survey) strengthen the reliability of the findings.

Limitations: As described above, cross-sectional design, self-report, limited geographic coverage, and absence of perpetrator data are notable limitations.

Conflict of interest: None declared.

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