

Correlates of bullying victimization among school adolescents in Nepal: Findings from 2015 Global School-Based Student Health Survey Nepal

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Abstract

Background : Bullying is an emerging risk factor for poor mental health outcomes adversely affecting children and adolescents. However, it has rarely caught the attention of the health and education sector due to lack of evidence in many countries including Nepal. The aim of this study was to assess the prevalence and factors associated with bullying behavior among adolescent students in Nepal.

Methods : We used nationally representative data from the Nepal Global School-Based Student Health Survey that involved two-stage cluster sampling design with the use of a standard set of self-administered questionnaires. Complex sample analysis was done to determine the prevalence and correlates of bullying among 6529 students of 68 schools studying in grade 7 to 11 using descriptive analysis and multivariable logistic regression.

Results : The overall prevalence of bullying among Nepalese school adolescents was 51% (55.7% in male and 46.1% in female). Bullied adolescents more commonly reported mental health problems with higher risk of loneliness (aOR 1.39, 95% CI: 1.14, 1.69), anxiety (aOR 1.97, 95% CI: 1.57, 2.47), suicide attempt (aOR 1.99, 95% CI: 1.48, 2.67), school absenteeism due to fear (aOR 1.72, 95% CI: 1.36, 2.19) and school truancy (aOR 1.43, 95% CI: 1.14, 1.79). A significant association was seen between bullying victimization and negative health behaviors like involvement in physical fights (aOR 3.70, 95% CI: 3.00, 4.56) and tobacco use (aOR 1.99, 95% CI: 1.09, 3.61).

Conclusion: School bullying is significantly associated with mental health factors like loneliness, anxiety, suicide attempt, school absenteeism and risky behavioral factors like smokeless tobacco use and involvement in physical fight. The insights provided by these findings have important implications for planning anti-bullying strategies in school settings in the Nepalese context.

Introduction

Bullying is a global public health priority, with negative impacts on the health and education of children and adolescents [1, 2]. It is defined as repeated aggressive behavior and actions between victims and perpetrators due to the imbalance of power [2, 3]. In South Asia, that includes Bangladesh, Bhutan, India, Nepal and Pakistan, there were 7, 68,238 DALYs attributable to childhood bullying 2017, an increase by 90% from 403987 in 1990. Approximately, 5, 42,497 DALYs in low SDI countries were attributable childhood bullying in 2017, which is an increase by 150% from 2, 16,786 DALYs in 1990. Similar to South Asia and Low SDI countries, DALYs attributable to childhood bullying seems to be in increasing trend. In 2017, 17,324 DALYs were attributable to childhood bullying which is an increase from 8,609 DALY in 1990 in Nepal. Almost 32.69 DALYs per 100,000 from anxiety disorder and 25.27 DALYs per 100,000 from anxiety disorder are attributable to bullying in Nepal [4].

School bullying is one of the serious issues faced by adolescents in educational settings. Existing research has revealed that bullied adolescents are at increased risk of poor physical [5–7] and mental health problems (such as anxiety, depression, psychiatric disorder), with immediate to long term health

impacts [8–10]. Bullying can even lead victims to self-harm thoughts and suicidal behavior [11, 12]. While bullying is a risk factor of mental health, it may also be a consequence of poor mental health. Studies suggest bullying victimization as a predictor of mental health outcomes and vice-versa (mental health outcomes as a predictor of bullying). The direction of this reciprocal relationship is, however, contingent on the gender and maturity of adolescents [13, 14].

Victimized students fear being at school and are more likely to miss school, play truant, avoid school activities and show poor academic performance [15–17]. Results from these studies have highlighted on the importance of promoting a safe and bully-free learning environment for better educational development of students. Some research also revealed that victimization is related to the use of harmful substances like cigarette, tobacco, alcohol [18–20] as well as involvement in sexual risk behavior [21] and physical fight [22, 23]. There is emerging evidence around association of bullying on body image. For instance, underweight or overweight adolescents were more likely to be bullied compared to normal weight adolescents [24, 25].

Though, bullying is receiving increased attention in many countries these days, it is still the unexplored area in most of the developing countries. Some previous attempts have identified school bullying as a key public health issue in Nepal [26–28]. These studies have investigated the association of bullying with few of the variables like age, ethnicity of participants, school type, depression and psychosomatic symptoms. However, we found that this topic still lacks in-depth evidence and is one of the under researched areas in Nepal. Realizing the need, this study reviewed Nepal Global School Based Student Health Survey (GSHS) data for identifying correlates of bullying to provide quality evidence for planning effective anti-bullying initiatives in Nepal.

Methodology

Data source

This study used nationally representative data from GSHS 2015, which was carried out to assess the health behaviors and factors associated with major causes of death and morbidity among school going adolescents in Nepal. This study adopted two-staged cluster sampling design and was conducted among 7-11 grades school adolescents. The study started with the selection of 74 eligible schools with the probability of selection of each school proportional to its size. Sampling of classroom was done randomly based on the random number that was already assigned for each class. All the students (a total of 8670 students) from the sampled classes were eligible to participate in this study and those students participated who got written consent from their parents. Non-response and selection probabilities were adjusted by determining the weighting factor of each student. Among 74 sampled schools; 68 schools (92%) participated, four were found to be closed during data collection period, one couldn't be reached because of road obstruction due to flooding and one declined to participate. Altogether, 6531 students (75%) from sampled classes completed the GSHS questionnaire. The overall response rate was 69%. Out of these responses, 6529 questionnaires were usable after data cleaning. GSHS analyzed data of

6529 students from grade 7 to 11 in 68 schools. A detail description of GSHS 2015 methods is reported elsewhere [29].

Survey instrument

Nepal GSHS used a standard set of self-administered questionnaires which contained 91 questions; 58 core questions and 31 expanded questions on 10 core modules: demographics, dietary behaviors, hygiene, violence and unintentional injury, mental health, tobacco use, alcohol and drug use, sexual behaviors, physical activity and protective factors. The questionnaire was translated into Nepali and back-translated into English to ensure the translation validity and also pre-testing was done to make the necessary modification in the questionnaire.

Research assistants (public health and nursing graduates) were recruited for data collection and trained on GSHS manual (provided by CDC) before moving to the field. All the students were provided with the information sheet and written consent form on the previous day of data collection and only those students participated who had obtained written consent form from parents/guardians.

Study variables

The primary outcome of interest in our study is the victimization of bullying. This variable was measured using the following question: “During the past 30 days, on how many days were you bullied?” The option ranged from 0 to 30 days. For our analysis, we considered the response of one or more days to have been bullied.

The following are the independent variables used in this study. Age was categorized and re-coded into early adolescent (11 to 14 years) and late adolescent (15 years and above) and other variables having likert scale responses were re-coded into binary dichotomous variables; either 0 or 1 for logistic regression analysis.

Table 1: Description of Independent variables used in the study

Variable	Questions	Code
Age	How old are you?	1=11 to 14 years (Early adolescent) 2=15 years and above (Late adolescent)
Sex	What is your sex?	1=Male 2=Female
Felt lonely	During the past 12 months, how often have you felt lonely?	1=Sometimes, most of the time, always 0=Never, rarely
Anxiety	During the past 12 months, how often have you been so worried about something that you could not sleep at night?	1=Sometimes, most of the time, always 0=Never, rarely
Considered suicide	During the past 12 months, did you ever seriously consider attempting suicide?	1=Yes 2=No
Attempted suicide	During the past 12 months, how many times did you actually attempt suicide?	1= 1 or more times 0= 0 times
Involved in physical fight	During the past 12 months, how many times were you in a physical fight?	1= 1 or more times 0= 0 times
Didn't go to school due to unsafe	During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?	1= 1 or more days 0= 0 days
Missed school without permission (Truancy)	During the past 30 days, on how many days did you miss classes or school without permission?	1= 1 or more days 0= 0 days
Smoking	During the past 30 days, on how many days did you smoke cigarettes?	1= 1 or more days

		0= 0 days
Smokeless tobacco use	During the past 30 days, on how many days did you use any tobacco products other than cigarettes, such as chewing tobacco surti, khaini, gutka, or parag?	1= 1 or more days 0= 0 days
Alcohol use	During the past 30 days, on how many days did you have at least one drink containing alcohol?	1= 1 or more days 0= 0 days
Overweight	How tall are you without your shoes on? How much do you weigh without your shoes on?	
Underweight	How tall are you without your shoes on? How much do you weigh without your shoes on?	
Sexual risk behavior	During your life, with how many people have you had sexual intercourse?	1= 2 or more people 0= never had sexual intercourse, 1 person
Physically active	During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?	1= 7 days 0= 0 to 6 days
Bullied	During the past 30 days, on how many days were you bullied?	1= 1 or more times 0= 0 times

Data analysis

Complex sample analysis was carried out using the primary sampling unit, stratum and sample weight in STATA version 13.1. A p-value <0.05 was considered statistically significant for all the statistical analyses.

Pearson Chi-square test was used for bivariate analysis. We reported adjusted odds ratio obtained from multivariable logistic regression analysis to estimate the association between bullying and its health risk behavior and mental health behavior correlates.

Results

Overall, (50.9 %, 95%CI: 47.2, 54.5) of students who participated in this survey reported being bullied. The prevalence of bullying was higher among male (55.7%, 95% CI: 51.1, 60.2) compared to female [Table 1].

Mental health behaviors

Students facing loneliness (61.5%, 95% CI: 56.7, 66.1), anxiety (65.0%, 95% CI: 60.4, 69.2), considered suicide (60.8%, 95% CI: 54.9, 66.4), attempted suicide (72.9%, 95% CI: 67.2, 77.9), missed school feeling unsafe (61.7%, 95% CI: 57.1,66.0), missed school without permission (60.8%, 95% CI: 56.4, 65.1), and involvement in physical fight (70.1%, 95% CI: 65.8, 74.2) had high prevalence of being bullied.

Health risk behaviors

Bullying prevalence was high among students who were involved in health risk behaviors like smoking (75.2%, 95%CI: 67.8, 81.4), using smokeless tobacco products (76.1%, 95%CI: 66.7, 83.4), drink alcohol (72.5%, 95%CI: 60.7, 81.8), and involved in sexual risk behavior (65.1%, 95%CI: 55.0, 74.1).

Other variables like age, overweight, underweight, physically active were not found to have statistically significant association with bullying.

Table 2: Prevalence of school bully-victims among school going adolescents of Nepal

Variables	Total Number	Weighted Count	Prevalence	95%CI
Age				
Early adolescent	3130	1514	50.4	45.1,55.8
Late adolescent	3028	1453	51.5	47.5,55.3
Sex***				
Male	2839	1505	55.7	51.1,60.2
Female	3265	1427	46.1	42.4,50.0
Felt lonely***				
Yes	2102	1245	61.5	56.7,66.1
No	3971	1671	45.4	41.4,49.4
Anxiety***				
Yes	2209	1349	65.0	60.4,69.2
No	3955	1618	43.7	39.4,48.0
Considered suicide**				
Yes	752	455	60.8	54.9,66.4
No	5329	2460	49.0	44.7,53.3
Attempted suicide***				
Yes	544	391	72.9	67.2,77.9
No	5629	2587	48.5	44.6,52.4
Involved in physical fight***				
Yes	2339	1578	70.1	65.8,74.2
No	3845	1399	38.3	34.7,42.1
Missed school feeling unsafe***				
Yes	2345	1380	61.7	57.1,66.0
No	3784	1562	43.3	38.6,48.0
Missed school without permission***				
Yes	1644	971	60.8	56.4,65.1
No	4406	1942	46.9	42.7,51.1
Smoking ***				

Yes	328	240	75.2	67.8,81.4
No	5740	2671	49.2	45.4,53.0
Smokeless tobacco use ***				
Yes	290	217	76.05	66.7,83.4
No	5884	2756	49.41	45.8,53.0
Alcohol use ***				
Yes	265	193	72.5	60.7,81.8
No	5814	2712	49.4	45.7,53.2
Overweight				
Yes	315	162	53.2	43.4,62.7
No	5886	2826	50.7	47.2,54.2
Underweight				
Yes	598	312	53.6	48.6,58.6
No	4910	2324	50.08	46.6,53.6
Sexual risk behavior **				
Yes	213	129	65.1	55.0,74.1
No	5769	2737	50.3	46.4,54.1
Physically active				
Yes	1068	501	49.4	42.3,56.5
No	5035	2440	51.2	47.4,55.0
Total	6201	2988	50.9	47.2,54.5

*p < 0.05, **p < 0.01, ***p < 0.001

Multivariable analysis revealed that a significant association was seen between bullied students and tobacco use (aOR 1.99, 95% CI: 1.09, 3.61) and involvement in physical fight (aOR 3.70, 95% CI: 3.00, 4.56). No clear associations were found between bullying and other risk variables like smoking, alcohol use, overweight, underweight, sexual risk behavior and physically active. [Table 3].

Table 3: Multivariable analysis of health risk behaviors of school bully-victims among school going adolescents of Nepal

Variables	Crude OR	95% CI	Adjusted OR*	95% CI
Smoking (Ref:No)				
Yes	3.13	2.13,4.61	1.53	0.96,2.43
Smokeless tobacco use(Ref:No)				
Yes	3.25	2.07,5.11	1.99	1.09,3.61
Alcohol use (Ref:No)				
Yes	2.70	1.55,4.68	1.13	0.77,1.67
Overweight (Ref:No)				
Yes	1.10	0.79,1.55	1.02	0.71,1.47
Underweight (Ref:No)				
Yes	1.15	0.91,1.46	1.17	0.86,1.58
Sexual Risk Behavior(Ref:No)				
Yes	1.85	1.20,2.85	0.89	0.51,1.55
Involved in physical fight (Ref:No)				
Yes	3.78	3.06,4.66	3.70	3.00,4.56
Physically active (Ref:No)				
Yes	0.93	0.70,1.24	0.98	0.71,1.36

*Adjusted for smoking, smokeless tobacco use, alcohol use, overweight, underweight, sexual risk behavior, involved in physical fight and physically active

Multivariable analysis showed that there was significant association between bullying and loneliness (aOR 1.39, 95% CI: 1.14, 1.69), anxiety (aOR 1.97, 95% CI: 1.57, 2.47), attempted suicide (aOR 1.99, 95% CI: 1.48, 2.67), missed school feeling unsafe (aOR 1.72, 95% CI: 1.36, 2.19) and missed school without permission (aOR 1.43, 95% CI: 1.14, 1.79) [Table 4].

Table 4: Multivariable analysis of mental health behaviors of school bully -victims among school going adolescents of Nepal

Variables	Crude OR	95% CI	Adjusted OR*	95% CI
Loneliness (Ref:No)				
Yes	1.92	1.58,2.34	1.39	1.14,1.69
Anxiety(Ref:No)				
Yes	2.39	1.93,2.96	1.97	1.57,2.47
Considered suicide(Ref:No)				
Yes	1.62	1.16,2.26	1.10	0.81,1.50
Attempted suicide(Ref:No)				
Yes	2.86	2.12,3.86	1.99	1.48,2.67
Missed school feeling unsafe(Ref:No)				
Yes	2.11	1.67,2.67	1.72	1.36,2.19
Missed school without permission(Ref:No)				
Yes	1.76	1.43,2.16	1.43	1.14,1.79

*Adjusted for loneliness, anxiety, considered suicide, attempted suicide, missed school feeling unsafe and missed school without permission

Discussion

This is the first large scale study on school bullying in Nepalese school adolescents. In this study, we aimed to identify the factors associated with bullying behavior among adolescent students. We found significant association between bullying victimization and health risk behaviors like tobacco and involvement in a physical fight. Mental health problems like loneliness, anxiety, suicide attempt and school absenteeism were also significantly associated with bullying victimization.

Comparing the data of GSHS from the southeast Asian countries, Nepal reported the highest prevalence (51%) of bully-victims in the region followed by; Srilanka (37.9%), Timor Leste (28.3%), Thailand (27.8%), Bangladesh (24.6%), Indonesia (20.6%) and Myanmar (19.4%) [17] and demonstrated significant association with various risk factors. The finding in this study showed that males were more likely to

become victims of a bully than females. One previous study analyzed the data of five cross-national surveys that were conducted among school aged children. The findings showed that, in four of the surveys, males were more likely to become victims of a bully and in one of the online survey; bullying prevalence was high among girls [30]. However, this finding might vary across schools, communities, countries, and cultures [9]. One of the possible explanations for this gender-wise variation might be that girls are more vulnerable to relational victimization like exclusion from groups, get threaten to damage social relationship, manipulation, gossip and rumor-spread and thus, less likely to report the victimization compared to the boys.

Mental health behaviors

As mental health behavior and bullying shows reciprocal relationship, we just aimed to study association between these two because of the cross-sectional nature of the study. This study revealed that victimization is significantly associated with loneliness and anxiety. In recent years, researchers have shown an increased interest in learning the relation between victimization with mental health outcomes and cognitive abilities in later life. Cohort studies from UK and USA reported a significant association of child victimization with persisting mental health problems across adulthood [6, 10]. Both perpetrators and victims are vulnerable to psychological health consequences. Perpetrators are more likely to become anti-social, involve in negative health behaviors and criminal activities in later life [17, 31, 32]. On the other hand, victims could be at increased risk of not only mental problems but also physical illnesses and injuries which may hamper the social development of a child.

There is also an increasing concern on assessing the root causes of harmful intentional acts these days. In this study, we found a significant association between suicide attempts and victimization. A systematic review showed that school bullying victims were 1.10 to 5.41 times more likely to show suicidal ideation and 2.45 to 2.76 times more likely to plan a suicide attempt as compared to non-bullied [33]. Another meta-analysis study, conducted with the reference of 47 studies, revealed that there is a positive association between bullying and suicidal behavior [34]. Physical victimization was associated with increased odds of suicide ideation and relational victimization was associated with suicidal attempt. Suicidal behaviour is also more prominent among cyberspace bullying victims [35, 36]. The increased use of the internet and social networking sites among school aged children has heightened the harmful consequences of cyber-bullying these days. Further work is required to establish causal links between cyber bullying and its mental and behavioural impact on school bullied victims in low-income countries.

Consistent with other literatures, this research found a positive association between bullied adolescents and absenteeism which was due to unsafe feeling and truancy than non-bullied [37, 38]. Several studies have shown that this fear and truancy due to bullying can lead to mental problems and lower academic achievement of students [15, 39]. Supporting this evidence, previous studies have emphasized the requirements of appropriate anti-bullying programs at schools [40-45]. It is therefore likely that learning outcomes could be improved through anti-school bullying strategies like school/classroom rules and

policies, curriculum materials, parents/teachers trainings and meetings, disciplinary methods and improved playground supervision [46, 47].

Health Risk Behaviors

Some of the previous studies have demonstrated the association between victimization and negative health behaviors (smoking, tobacco use, alcohol use, sexual risk behavior and physical inactivity) [20, 21, 23, 48, 49]. Contrary to these studies, this study found no significant association of victimization with risk behaviors like smoking, alcohol use, sexual risk behavior and physical inactivity. However in this study, we found that bully-victims were more susceptible to engage in smokeless tobacco use. This study has been unable to demonstrate whether the result was influenced by other forms of bullying or was based on never tried tobacco students. Further studies need to be undertaken to investigate the direction and possibility of these risk variables.

Consistent with other studies, this study showed a significant association between victimization and being involved physical fight [22, 23]. On one hand, some bully-victims mentally harm themselves as discussed above and some others choose fighting back which may lead to serious injuries. On other hand, there is also the possibility that adolescents who were already engaged in a physical fight become the targets of bullying. Also, previous studies have reported the linkage of bullying with abnormal body weight (overweight, underweight) [24, 25]. Evidence from these studies showed that overweight adolescents were more likely to experience verbal torture whereas underweight adolescents were more likely to experience physical and relational victimization. Contrary to that, the result of this study showed no association with weight. The reason for these inconsistencies might be due to the limitations of this study. There is a need for further studies to clarify the full picture. Therefore, this component is an important recommendation for future research.

There are some limitations in this study. As GSHS was designed to assess the behavioral and protective factors of 10 different key areas, due to its broad nature, bullying tends to occupy small space with very few questions in the survey. Also, being a cross-sectional study design, associated factors might have limited implications for the casualty. Because of this, we couldn't detect whether bully-victims showed harmful mental and health risk behaviors or adolescents already having this behavior were becoming the victims of bullying. Also, the participation of school students alone does not represent the adolescents of the whole nation. The findings could differ between school enrolled and non-enrolled adolescents. This survey lacks the data based on geographical, socio-economic information and other factors that might determine bully. As this is self-reported data, there might be some potential biases regarding the response of adolescents. Also, it does not explain detail on the nature of bullying such as perpetrator characteristics, the role of cyber-bullying etc. Despite these limitations, this study is the representation of a large sample of Nepalese students and has significant implications on adolescent development.

Conclusion

This study identified school bullying as one of the significant public health issues in Nepal. This study showed that school bullying is associated with poor mental and health risk behaviors that have a negative impact on present and/or later life. Despite the cross-sectional nature of the study, the findings of this study provide valuable insights for planning an effective approach in preventing bullying at schools.

Declarations

Availability of data and materials

The dataset supporting the conclusions of this article is open access data and is available in the WHO website: <https://www.who.int/ncds/surveillance/gshs/datasets/en/>

Ethics approval and consent to participate

This study involves the analysis of Global School Based Study Health Survey 2015 conducted by NHRC. In the original study, ethical approval was obtained from ERB-NHRC and written informed consent was obtained from research participants and guardians.

Consent for publication

Data has been archived in WHO website and are open access data. Data can be assessed at: <https://www.who.int/ncds/surveillance/gshs/datasets/en/> . No specific consent is needed for publication to the best of your knowledge.

Competing interests

Authors declare no competing interests.

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Authors' contributions

Tamanna: Conception, analysis and preparation of first draft.

Achyut: Conception of the study, analysis and revision of the draft manuscript.

Bihungum: Conception of the study, analysis and revision of the draft manuscript.

Binaya: Conception of the study, analysis and revision of the draft manuscript.

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References

1. United Nations Educational, S. and C. Organization, *School violence and bullying: Global status report*. 2017, Author Paris.
2. Wilson, M., A. Dunlavy, and A. Berchtold, *Determinants for Bullying Victimization among 11–16-Year-Olds in 15 Low- and Middle-Income Countries: A Multi-Level Study*. *Social Sciences*, 2013. **2**(4): p. 208-220.
3. Olweus, D., *School Bullying: Development and Some Important Challenges*. *Annual Review of Clinical Psychology*, 2013. **9**(1): p. 751-780.
4. ; Available from: <https://vizhub.healthdata.org/gbd-compare/>.
5. Matthews, K.A., et al., *Bullying and Being Bullied in Childhood Are Associated With Different Psychosocial Risk Factors for Poor Physical Health in Men*. *Psychological Science*, 2017. **28**(6): p. 808-821.
6. McDougall, P. and T. Vaillancourt, *Long-term adult outcomes of peer victimization in childhood and adolescence: Pathways to adjustment and maladjustment*. *The American psychologist*, 2015. **70**(4): p. 300-310.
7. Peyton, R.P., S. Ranasinghe, and K.H. Jacobsen, *Injuries, violence, and bullying among middle school students in Oman*. *Oman Medical Journal*, 2017. **32**(2): p. 98-105.
8. Arseneault, L., *Annual Research Review: The persistent and pervasive impact of being bullied in childhood and adolescence: implications for policy and practice*. *Journal of Child Psychology and Psychiatry*, 2018. **59**(4): p. 405-421.
9. Bradshaw, J., et al., *Comparing children's experiences of schools-based bullying across countries*. *Children and Youth Services Review*, 2017. **80**(Journal Article): p. 171-180.
10. Lereya, S.T.P., et al., *Adult mental health consequences of peer bullying and maltreatment in childhood: two cohorts in two countries*. *Lancet Psychiatry*, The, 2015. **2**(6): p. 524-531.
11. Bang, Y.R. and J.H. Park, *Psychiatric disorders and suicide attempts among adolescents victimized by school bullying*. *Australasian Psychiatry*, 2017. **25**(4): p. 376-380.
12. Barzilay, S.P.D., et al., *Bullying Victimization and Suicide Ideation and Behavior Among Adolescents in Europe: A 10-Country Study*. *Journal of Adolescent Health*, 2017. **61**(2): p. 179-186.
13. Kaltiala-Heino, R., S. Fröjd, and M. Marttunen, *Involvement in bullying and depression in a 2-year follow-up in middle adolescence*. *European child & adolescent psychiatry*, 2010. **19**(1): p. 45.
14. Sweeting, H., et al., *Peer victimization and depression in early–mid adolescence: A longitudinal study*. *British journal of educational psychology*, 2006. **76**(3): p. 577-594.
15. Delprato, M., K. Akyeampong, and M. Dunne, *The impact of bullying on students' learning in Latin America: A matching approach for 15 countries*. *International Journal of Educational Development*, 2017. **52**(Journal Article): p. 37-57.
16. Poudel, L.N., *A Review of the Results of National Assessments of Student Achievement in Nepal*. *EDUCATIONAL ASSESSMENT*, 2017: p. 18.

17. Vikneswaran, S., et al., *BULLYING AMONG ADOLESCENTS AND IT'S ASSOCIATED FACTORS*. International Journal of Public Health and Clinical Sciences, 2018. **5**(1): p. 1-16.
18. Radliff, K.M., et al., *Illuminating the relationship between bullying and substance use among middle and high school youth*. Addictive behaviors, 2012. **37**(4): p. 569-572.
19. Tharp-Taylor, S., A. Haviland, and E.J. D'Amico, *Victimization from mental and physical bullying and substance use in early adolescence*. Addictive behaviors, 2009. **34**(6-7): p. 561-567.
20. Case, K.R., et al., *Victims of bullying and tobacco use behaviors in adolescents: differences between bullied at school, electronically, or both*. Journal of School Health, 2016. **86**(11): p. 832-840.
21. Crookston, B.T., et al., *Victimization of Peruvian adolescents and health risk behaviors: young lives cohort*. BMC public health, 2014. **14**(1): p. 85.
22. Cheng, Y., et al., *Being bullied and psychosocial adjustment among middle school students in China*. Journal of School Health, 2010. **80**(4): p. 193-199.
23. Pengpid, S. and K. Peltzer, *Bullying and its associated factors among school-aged adolescents in Thailand*. The Scientific World Journal, 2013. **2013**.
24. Wang, J., R.J. Iannotti, and J.W. Luk, *Bullying victimization among underweight and overweight US youth: Differential associations for boys and girls*. Journal of Adolescent Health, 2010. **47**(1): p. 99-101.
25. Waasdorp, T.E., K. Mehari, and C.P. Bradshaw, *Obese and overweight youth: Risk for experiencing bullying victimization and internalizing symptoms*. American journal of orthopsychiatry, 2018. **88**(4): p. 483.
26. Mishra, D.K., et al., *Bullying Behavior and Psychosocial Health—A Cross-sectional Study among School Students of Pyuthan Municipality*. Journal of Nepal Health Research Council, 2018. **16**(1): p. 73-78.
27. Neupane, D., *Age and Peer Victimization among School Adolescents in Kathmandu, Nepal*. Journal of Advanced Academic Research, 2014. **1**(1): p. 18-23.
28. Rana, N., *School bullying: Introducing the issue*. Journal of Education and Research, 2008. **1**: p. 62-68.
29. Aryal, K.K., *Global school based student health survey Nepal, 2015*. 2017: Nepal Health Research Council.
30. Smith, P.K., et al., *Consistency of gender differences in bullying in cross-cultural surveys*. Aggression and Violent Behavior, 2018(Journal Article).
31. Ansary, N.S., et al., *Best practices to address (or reduce) Bullying in schools*. The Phi Delta Kappan, 2015. **97**(2): p. 30-35.
32. Ttofi, M.M., D.P. Farrington, and F. Lösel, *School bullying as a predictor of violence later in life: A systematic review and meta-analysis of prospective longitudinal studies*. Aggression and Violent Behavior, 2012. **17**(5): p. 405-418.

33. Katsaras, G.N., et al., *Bullying and Suicidality in Children and Adolescents Without Predisposing Factors: A Systematic Review and Meta-analysis*. *Adolescent Research Review*, 2018. **3**(2): p. 193-217.
34. Holt, M.K., et al., *Bullying and suicidal ideation and behaviors: a meta-analysis*. *Pediatrics*, 2015. **135**(2): p. e496-e509.
35. Ang, R.P., *Adolescent cyberbullying: A review of characteristics, prevention and intervention strategies*. *Aggression and Violent Behavior*, 2015. **25**(Journal Article): p. 35-42.
36. Selkie, E.M.M.D.M.P.H., J.L.P.D. Fales, and M.A.M.D.M.S.E.M.P.H. Moreno, *Cyberbullying Prevalence Among US Middle and High School–Aged Adolescents: A Systematic Review and Quality Assessment*. *Journal of Adolescent Health*, 2016. **58**(2): p. 125-133.
37. Prakash, R., et al., *Correlates of school dropout and absenteeism among adolescent girls from marginalized community in north Karnataka, south India*. *Journal of Adolescence*, 2017. **61**(Journal Article): p. 64-76.
38. Smalley, K.B., J.C. Warren, and K.N. Barefoot, *Connection Between Experiences of Bullying and Risky Behaviors in Middle and High School Students*. *School Mental Health*, 2017. **9**(1): p. 87-96.
39. Wang, W., et al., *School climate, peer victimization, and academic achievement: results from a multi-informant study*. *School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association*, 2014. **29**(3): p. 360-377.
40. Farrington, D.P. and M.M. Ttofi, *School-based programs to reduce bullying and victimization*. *The Campbell Collaboration*, 2009. **6**: p. 1-149.
41. Gaffney, H., M.M. Ttofi, and D.P. Farrington, *Evaluating the effectiveness of school-bullying prevention programs: An updated meta-analytical review*. *Aggression and Violent Behavior*, 2019. **45**(Journal Article): p. 111-133.
42. Jiménez-Barbero, J.A., et al., *Effectiveness of anti-bullying school programs: A meta-analysis*. *Children and Youth Services Review*, 2016. **61**(Journal Article): p. 165-175.
43. Konishi, C., et al., *Investigating associations between school climate and bullying in secondary schools: Multilevel contextual effects modeling*. *School Psychology International*, 2017. **38**(3): p. 240-263.
44. Turner, I., et al., *Well-being, school climate, and the social identity process: a latent growth model study of bullying perpetration and peer victimization*. *School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association*, 2014. **29**(3): p. 320-335.
45. Wang, C., B. Berry, and S.M. Swearer, *The critical role of school climate in effective bullying prevention*. *Theory Into Practice*, 2013. **52**(4): p. 296-302.
46. Menesini, E. and C. Salmivalli, *Bullying in schools: the state of knowledge and effective interventions*. *Psychology, Health & Medicine*, 2017. **22**(sup1): p. 240-253.
47. Sivaraman, B., E. Nye, and L. Bowes, *School-based anti-bullying interventions for adolescents in low- and middle-income countries: A systematic review*. *Aggression and Violent Behavior*, 2018(Journal Article): p. 1-11.

Article).

48. Vieno, A., G. Gini, and M. Santinello, *Different forms of bullying and their association to smoking and drinking behavior in Italian adolescents*. Journal of School Health, 2011. **81**(7): p. 393-399.
49. Azagba, S., *School bullying and susceptibility to smoking among never-tried cigarette smoking students*. Preventive medicine, 2016. **85**: p. 69-73.