Bullying and victimization in schools in India

Thakkar, N.

CHAPTER FIVE

The Role of Social and Self-Perceived Socio-Economic Minority Status in Peer Victimization in India

5

Submitted and Under Review

ABSTRACT

The aim of the current study is to investigate the role of adolescents' socio-economic status (SES) in bullying victimization experiences among Indian school going youth (grades 7 to 9; *M*-age$_{T1}$ =13.15, *SD* = 1.16). The sample consisted of 1,238 students from nine schools in Indore, India. We used self- as well as peer-reports to measure bullying victimization in the classroom, at three time-points in one school year. Students' SES scores were converted into low, middle, and high SES proportions within classroom to be used as a moderator variable to examine effects of individual's SES minority status on victimization behavior. Students' individual perception of their status was added as a mediator in the growth model framework to realize a mediated moderator approach to study both the effects of contextual minority and majority SES, and the effects of perceptions of the status, on victimization at baseline, and on change in victimization over time. We found that classroom level SES plays a significant role in predicting victimization behavior in schools cross-sectionally at baseline, but also longitudinally over time. This role of the classroom level moderator is mediated through perceptions of self, where individuals who perceive themselves as a minority experience more victimization than students who belong to a minority but do not perceive themselves as such. However, in the long run, being part of a minority, and perceiving self as such, leads to decreased victimization which may point to the normative beliefs, values, and context of the Indian society, warranting future research.

Keywords: Victimization; SES Context; Minority Perceptions; India; Growth Modeling

INTRODUCTION

The prevalence of bullying and victimization among school going adolescents has been recognized and documented globally (Elgar et al., 2015). Very likely, some proportion of youth in any culture and community will perpetrate or experience bullying victimization irrespective of background (Durkin et al., 2012). However, because imbalance of power is an underlying element of bullying (Olweus, 1993), certain contexts may either enable bullying behavior by facilitating a wider imbalance of power, or discourage the behavior by closing the power gap between, in this case, students or adolescents (Campbell et al., 2018; Sidanius et al., 2004). Here we focus on the imbalance of power linked to socio-economic status (SES). Research on the topic of SES and bullying is limited around the world (Tippett & Wolke, 2014), but particularly underserved in India where as compared to the massive population size of the country, academic literature in the field of adolescent bullying is woefully scarce (Thakkar et al., 2020b). The aim of the current longitudinal study is to investigate cross-sectional, as well as over-time, role of the context of an individual by examining the associations between contextual SES and self-perceptions of the persons sharing this context as regards to socio-economic minority/majority status on the one hand, and victimization behavior among Indian school going youth on the other. We simplify the aspects and complexities of this aim in the following paragraphs. The present study uses peer-reports to assess class-room victimization, along with self-reports, bringing added value to this field of research (Van Geel et al., 2018).

SES and Victimization

SES plays a small but significant role in bullying and victimization among adolescents (Due et al., 2009; Tippett & Wolke, 2014). Tippett and Wolke's meta-analysis (2014) suggests that children from lower SES households experience harsher

punishment, restrictive and authoritarian parenting practices, greater levels of sibling violence, and are more often exposed to incidents of domestic violence that affects their ability to form or maintain peer relationships, than higher SES children. This predisposes lower SES children to higher risk for victimization through indirect factors instead of directly observed socio-economic levels. Past studies from India, albeit very few, also have found that SES contributes to distinguishing students who were involved in bullying behavior from those who were not (Sethi et al., 2019). Malhi et al. (2015) found that low SES students scored higher on physical victimization, whereas high SES students scored higher on relational victimization.

Furthermore, in a multilevel study in 35 countries, Due et al. (2009) reported that adolescents who attend schools in countries where SES differences are larger, are at higher risk of victimization. Examining country level, school level, and individual level socio-economic inequality in their study, Due et al (2009) found that for every one-point reduction on the 7-point Family Affluence Scale (FAS), the odds of being bullied increased by 14% after controlling for school and country economic level and income inequality. They further highlighted that it is neither the economic level of the country nor the mean affluence of the school that were associated with bullying, but the *disparity* at the school level (standard deviation of the students' FAS score) and the economic *inequality* at the national level that were associated with the bullying prevalence. Thus, there is socioeconomic inequality in exposure to bullying among adolescents, leaving children of greater socioeconomic disadvantage at higher risk of victimization. An explanation for the relationship between socioeconomic disadvantage and bullying could be that in countries with large economic inequalities like India, hierarchies and status differences are distinctly recognizable in the adult population (Kakar & Kakar, 2009). This may be internalized and then reflected in school children. The normative acceptance of status hierarchies, cultural disparities, and socio-economic inequalities lead to a more segregated society thereby prompting a power imbalance (Campbell

et al., 2018); i.e., a recognized constituent of bullying (Olweus, 1993). In line with this, some studies and theoretical models suggest that it is the *contextual* status, i.e., either being a numeric minority or majority, or being perceived as minority or majority in the classroom setting, which adds to bullying and victimization (c.f., Bellmore et al., 2004; Graham & Juvonen, 2002; Verkuyten & Thijs, 2002).

SES in Classroom Context

It has been found that adjustment of an individual within a peer group is a result of the interaction between characteristics of individuals and their contexts, rather than independent characteristics of an individual alone (Bellmore et al., 2004). Thus, specific characteristics of a student, for instance being of low or high SES, would not necessarily result in bullying perpetration or victimization, because the effect of SES is contingent upon the SES composition of the classroom. A possible explanation could be that individuals who are identified as "social misfits" in a group, are more likely to be victimized or rejected (Bellmore et al., 2004). We examine if individuals from minority SES backgrounds may be more at risk of victimization if they do not "fit" into the majority status of a given context.

Past literature recognizes that being a minority in society with regard to ethnicity, gender, or race is often related with experiences of victimization (Bellmore et al., 2004; Graham & Juvonen, 2002; Verkuyten & Thijs, 2002). However, research examining numeric minority or majority status with regard to SES and bullying is scant, and completely lacking in India. To fill this gap, we examine a class-level factor, i.e., class composition of SES, to understand the association between *SES contextual minorities* with victimization behavior among adolescents. Class SES composition or relative proportions of different SES levels within a classroom may affect victimization behavior depending on the students' similarity or dissimilarity to those around them (Verkuyten & Thijs, 2002).

Perception of Minority and Majority Status

Additionally, in the present study we aim to examine if an individual's subjective *minority perception* of their SES status mediates the relationship between contextual SES status and bullying behavior. Tippett and Wolke (2014) note in their meta-analyses that the statistically weak associations between low SES and victims or bully-victims suggests that the results of the included studies may not reflect a direct association, but rather an indirect mediated relationship. Following up on this idea, we extend the theory and analyze whether it is not the objective measurement of classroom composition and numerical minority or majority status of a student that is directly related to victimization, but the relationship between SES composition and being victimized relationship is mediated by the subjective perception of the students' status. One likely rationale for this is that during classroom interactions, the process in which individuals appraise or view themselves contributes to their adjustment within the context (Graham & Juvonen, 1998; Verkuyten & De Wolf, 2002). Eccles and Roeser (2011) note that peer norms and cultures at the structural level of classrooms or within the school context tend to shape an individual student's sense of self. Moreover, according to the self-categorization theory (Turner, 1987), people perceive themselves to be members of various groups, and this act of categorization may lead to perceptual distortions of self-identification (Verkuyten & De Wolf, 2002) resulting in increased conformity to in-group stereotypes and a maximization of differences with out-group characteristics. Furthermore, such distortions may also overshadow the role of earlier self-identification and self-presentation in discrimination and bullying behavior, and turn *perceptions* of intergroup relationships from less to relatively more important for explaining discrimination and bullying than actual contextual status, or individual peculiarities (Hutnik, 2004).

In line with this, Verma (2004) notes that in high power-distance countries like India, the sense of powerlessness perceived by "out-group" or minority individuals

may promote a fatalistic attitude of apathy and hopelessness, that could lead to an acceptance of bullying behaviors. Following this reasoning, students who qualify as a numeric minority in the classroom in terms of SES may automatically attribute the deviation from the majority to be the reason why they are victimized, and thus tend to accept negative actions towards them more easily than students who are in a numeric majority. Such tendencies of self-blame or internalized self-perceptions are discouraged in contexts where there is diversity or lesser imbalance of power, because diversity provides enough attributional ambiguity to evade self-blame (Bellmore et al., 2004). However, in contexts where social disparities and imbalance of power are unambiguous, self-perceptions surface, which likely play a role in mediating the relationship between SES and bullying behavior, a supposition that the present study aims to investigate.

Present Study

Indian society is hierarchical, and marked by disparities in socio-cultural factors such as SES, religion, caste, gender, and color (Bapat et al., 2016; Kakar & Kakar, 2009). Some scholars identify these disparities as very typical to the Indian context, proposing that such disparities distinguish India from most other countries (Panda & Gupta, 2004). This makes it paramount in a study on bullying and victimization in India to examine the role of socio-cultural factors (Smith et al., 2018; Thakkar et al., 2020b). India houses the largest adolescent population in the world, 356 million youth between the ages of 10 to 19 years (UNFPA, 2014), harboring an enormous repository of adolescent behavior that is underutilized by social science research. The present research aims to bridge this gap in literature by providing a report on SES and bullying behavior within India. Furthermore, the present study adds value to the literature by using self- as well as peer-reports to measure victimization, which strengthens the validity of the constructs being measured (Tippett & Wolke, 2014; Van Geel et al., 2018).

We assess students' perception of minority or majority status at the first time point (T1), and SES and victimization behavior over three time-points in an academic year (T1, T2, T3) which provides us the opportunity to study the associations between SES and victimization longitudinally, and also see change in associations over time, if any. Also, we examine if the relationship between contextual SES and victimization is mediated by perception of majority or minority SES status of the individual. Building upon past literature we hypothesize that:

A. Contextual minorities will experience more victimization than contextual majorities at baseline T1, T2 and T3, and also longitudinally over time from T1 to T2 to T3 (Bellmore et al., 2004; Due et al., 2009). Specifically, in a class of low SES majority, middle and high SES students will experience more victimization than low SES students. In a class of high SES majority, low and middle SES students will experience more victimization than high SES students, and in a class of middle-income majority, low and high SES students will experience more victimization than middle SES students.

B. The above associations will be mediated by individuals' perceptions at baseline and over time, such that, contextual minorities will experience more victimization as compared to contextual majorities, when they also perceive themselves as a minority (Graham & Juvonen, 1998; Hutnik, 2004; Verkuyten & De Wolf, 2002).

METHOD

The study reported here is part of a larger project on bullying and victimization in Indian schools. This dataset has previously been used in a publication about psychopathy and bullying (Thakkar et al., 2019), and BMI and bullying (Thakkar et al., 2020). Here we present only the variables relevant to the current paper.

Participants

Data were collected from nine schools in and around the city of Indore in central India at three time-points with intervals of three months in the school year of 2015-2016. A total of 1,238 students (grades 7 to 9; aged 11 - 16 years, M_{age} = 13.01, *SD* = 1.15) were included in the analyses (1,120 at T1- 296 girls, 824 boys; 1,036 at T2- 274 girls, 762 boys; and 1,006 at T3- 282 girls, 724 boys). Students completed the questionnaire in either Hindi (*N*= 497; 40%), India's national language, or English (*N*= 741; 60%), depending on the formal language of instruction of the participating schools. Of the nine participating schools, three were public schools (i.e., funded and run by the government) whereas six were private schools (privately owned by non-government organizations). Eight schools were co-ed schools, which means mixed boys and girls' schools, whereas one school was an all-boys school.

Large class sizes with sometimes over 50 students sitting closely together, combined with laxed disciplinary structures in classrooms have long been identified to complicate data collection processes in India (Bapat, 2016). The current study is also affected by this, and, therefore, some exclusions in data were made to eventually maintain a sample that is consistent with global research standards. The initial sample consisted of 1,908 students from ten schools, between the ages of 11 to 16 years, from grade 7, 8, and 9. From the all-boys school 143 students at T2 were excluded from data collection, due to disturbances and laxed discipline in classrooms. From Grade 7 of one school, 185 students had received two sets of questionnaires during data collection at T1, one in English and the second in Hindi the next day, because the students found the English questionnaires difficult to follow on day 1 despite the medium of instruction for that school being English, thus, excluding these students from final analyses. One of the ten participating schools chose to drop out in Wave 3 because of undisclosed reasons and thus all students (337) from that school were excluded from the analyses. Five students were excluded due to incomplete data on their grade. Consequently, the

final sample consisted of 1,238 students from nine schools. Descriptive statistics for age, SES, bullying and victimization scores of the participants are reported in Table 1. Beyond the above-mentioned exclusions, students that opted out of the research or were absent during data collection (118 at T1; 202 at T2; and 232 at T3) were marked as missing in analyses.

Instruments

Students provided information regarding socio-demographics like gender, grade, age, and family affluence. The original English scales used in the present study were translated to Hindi through a formalized translation procedure following guidelines laid by Beaton et al. (2000; Thakkar et al., 2020).

Family Affluence Scale II

The Family Affluence Scale II (FAS; Currie et al., 1997) was used at T1, T2, and T3 to measure socio-economic status (SES). This self-report measure consists of four questions, each using a different response scale. The FAS was developed so that adolescents can give an approximation of their SES. The FAS has been found to be a valid indicator of SES (Boyce et al., 2006), and has been validated for its use with Indian adolescents (Bapat, 2016). Test-retest correlations between Wave 1 and Wave 2, Wave 2 and Wave 3, and Wave 1 and Wave 3 were found to be r= .73, r= .79, and r= .75 for the English questionnaires, and r= .70, r= .77, and r= .65 for the Hindi questionnaires.

Self-reported Bullying Victimization

The Illinois Bully-Fight-Victim Scale (Espelage & Holt, 2001) was used at T1, T2, and T3, to assess self-reported bullying and victimization. The scale has been found valid and reliable (Espelage et al., 2003). We used data from the victim subscale for analyses. The victimization scale consists of four items that measure the experience of victimization from peers (e.g., “Other students picked on me”). Response options for the scales are *never* (1), *1 or 2 times* (2), *3 or 4 times* (3), *5 or 6 time*s (4), and *7 or more*

times (5) in the past 30 days. In the present study, Cronbach's alpha for this scale was found to be .81 at T1, .84 at T2, and .85 at T3 for the English questionnaires and .88 at T1, .90 at T2, and .92 at T3 for the Hindi questionnaires.

Peer-reported Bullying Victimization

Students were asked to nominate (circle names of) victims of bullying from a list of their classmates at each of the time-points T1, T2, and T3. The number of victims to be listed was not limited. Dyadic nominations of bully and victim status, received by peers from within a class, are found to be a reliable and valid estimate yielding consistent results with other informant reports across studies (Malamut et al., 2020; Veenstra et al., 2007) as well as in the Indian setting (Thakkar et al., 2020b). A total score was computed based on the number of times an individual was marked as a victim by their classmates. This total score was changed into proportions by dividing the total score by the number of students in class, as was suggested and done in earlier studies (Veenstra et al., 2007).

Perception of Minority or Majority Status

The authors of the study designed a questionnaire to measure if individuals perceived themselves as a minority or majority at T1 in their classroom on the subscales of gender, caste, religion, body weight, and family income. We used the family income question from this scale for the purpose of the present study. Self-reported indicators of family income have been found to be valid measures of socioeconomic index (Tippett & Wolke, 2014). Students were asked to respond to the question "How many classmates have the same financial condition (family income) as your family does?" on a five-point scale ranging from "*none*", *"some*", "*about half*", "*many*", and "*all*", where a lower score is indicative of a perception of minority, and higher score is indicative of perception of majority in a continuous capacity.

Procedure

The Institutional Review Board of the Institute of Education and Child Studies at University approved of the study for the project titled “Bullying and Victimization in (Thakkar et al., 2020)”. A convenience sample was obtained by approaching 15 schools in the school year 2015-2016. Ten schools agreed to participate. No compensation was offered to any schools at the outset, however, four of the participating schools requested it in conversation with the researchers, of which three schools were given vouchers to a bookstore for each wave, whereas one school was given carpets for the students to sit on in the classroom. No student was offered independent compensation for their participation. Instructions to students included that their participation was voluntary, and would bear no consequence on their academic performance, or have any other implications, neither positive nor negative. Students were also informed that their information/responses would be kept confidential and not shared with parents, teachers, or classmates. At the discretion and recommendation of the principals of the participating schools, the principals, substituting as responsible consenting adults for the students in a school setting (Malamut et al., 2020), gave written consent to collect data from students in grades 7, 8, and 9. Principals were informed of all the features of the research that could affect their willingness to allow the child to participate. Students were allowed to opt out of the research. Every student enrolled in a class at the time of data collection was invited to complete the questionnaire, and while most students chose to participate, some students chose to go the library or complete their home work in the back rows of the class. Students who thus opted out of research were marked as absent (missing) in analyses. The questionnaires were distributed to the students in their classrooms during a pre-arranged time. There was a team of 20 trained research assistants, who were all first- or second-year master students of Social Work. During simultaneous data collection in multiple grades, at least two research assistants were present in each class, gave instructions and were available to answer

any of the students' questions. Class teachers helped to keep students on task but were asked not to interfere with completing the questionnaires. The students took approximately 75 minutes for each round to complete the full questionnaire.

Analysis Plan

In the present study, we used a growth model framework to incorporate a mediated moderator approach in longitudinal capacity, with full information maximum likelihood (FIML; Schlomer et al., 2010) estimation to allow for missing values, to study the effects of contextual minority and majority SES status, and perceptions of the status, on victimization within classroom in Indian school-going youth.

Power

A power or sample size calculation to detect a group by time interaction effect in longitudinal growth models could be performed following the approach by Vallejo et al. (2019) for detecting a group effect under assumed heterogeneity of variances between groups, specifically in a directly observed intervention effect over time. The current study has several characteristics which do not allow to use this particular method. Firstly, it concerns a design for which no prior indication of effect size over time is available. Secondly, the models in the current work are based around natural instead controlled groups, which changes the variance assumptions and renders a biased power estimate. Thirdly, our implementation models within-subject latent intercepts and latent slopes instead of group level slopes. Fourthly, and more importantly, these latent intercepts and slopes are projected on a mediation structure. All things combined this would require different conditional power estimates for each sub-model and each individual. There is no way to directly obtain such estimates other than performing a simulation study for each scenario, which would be a study design in itself. However, given the large sample size of more than 1000 participants, having over 10 classes, 2 main groups and 3 time-points, 5% significance level and high power of 0.95, according

to a repeated measures design G*power, this would enable us to already detect a (very) small group by time interaction effect size of f = 0.046. This suggests that the current sample provides sufficient power to detect any effect size exceeding f = 0.046.

Dependent Variable - Victimization

For the self-reported victim scale, we computed means for students who had responded to 80% or more items on the victim scale for T1, T2, and T3 respectively. The 80% cut-off rule was implemented as it is the criterion proposed by the authors of the scale (Espelage & Holt, 2001). Students who had incomplete data on more than 20% items on the scale in a particular wave were defined as missing for the total score. These missings were handled using a Full Information Maximum Likelihood (FIML) estimation in the main analysis of growth modeling. For the peer-reported victim scales, percentage of times a child was marked a victim in class was calculated by classroom size (count*100/total number of students in class) (Veenstra et al., 2007).

Predictor Variable – SES (student-level)

To estimate a student's SES status, at step 1 we calculated a mean score for students on each of the four FAS items from each wave. For example, *Mean* FAS item 1 = (FAS_{T1} + FAS_{T2} + FAS_{T3}) / 3. Similarly, *Mean* scores for FAS items 2, 3 and 4 were calculated for each student. Reliability analysis to check for stability of SES scores across waves confirmed that reliability (Cronbach's alpha) between item level scores for individual FAS items was .86, whereas Cronbach's alpha for sum scores of FAS at T1, T2, and T3 was .92. Given this consistency in SES scores across waves, it was deemed feasible to calculate a mean score for SES items, thereby also deriving a more durable SES estimate for each student. At step 2, a composite FAS score was calculated for each student based on their *Mean* scores to these four items (Currie et al., 1997). We used a three-point ordinal scale, where FAS low (score = 0,1,2) indicates low affluence, FAS medium (score = 3,4,5) indicates middle affluence, and FAS high (score = 6,7,8,9) indicates high affluence (Boyce et al., 2006). These cut-off scores have been validated in a study with

an Indian sample, and were found to be reliable (Bapat, 2016). In the present study, 16.1% (*n* = 180) students qualified as low SES, 42.8% (*n* = 478) students qualified at middle SES, and 41.1.% (*n* = 460) students qualified as high SES in Wave 1. In Wave 2, 13.3% (*n* = 137) students qualified as low SES, 42.4% (*n* = 435) students qualified at middle SES, and 44.3.% (*n* = 455) students qualified as high SES. In Wave 3, 12.6% (*n* = 125) students qualified as low SES, 41.5% (*n* = 413) students qualified at middle SES, and 45.9% (*n* = 457) students qualified as high SES.

Moderator - Classroom Composition and Minority Groups (class-level)

For classroom SES composition, each classroom is distributed into the 3 SES proportions, i.e., percentage of students that classify as low SES, middle SES, and high SES, as created with the above classes of SES, determined and validated through FAS. As per proportions, the group that had the highest percentage of students in each classroom was labeled as "contextual majority", whereas the other two groups were then "contextual minorities". Thus, for instance, if a class had low SES as majority, both middle and high SES students were taken as contextual minorities, or if a class had middle SES as majority, both low and high SES students formed contextual minorities. However, to rule out chance classification, a 5% minimum difference in proportional size criterion was set to allow for the identification of a true minority group in a classroom. For example, without the 5% minimum difference rule, if a particular class had 33% students classifying as low SES, 33% as middle SES, and 34% as high SES, the high-income group could be strictly taken as a majority, whereas both low- and middle-income students would classify as minorities, however, this could be a draw distribution. Therefore, a distribution with a minimum 5% difference in proportions, for instance where 38% students classify as high income, 31% as middle, and 31% as low income, was followed to establish unbiased estimates. Based on this rule, we found that approximately 12% (*n* = 142) of the students qualified as minorities whereas 65% (*n* = 782) of the students qualified as majorities in the present study.

Mediator - Perception of Minority/Majority SES Status (student-level)

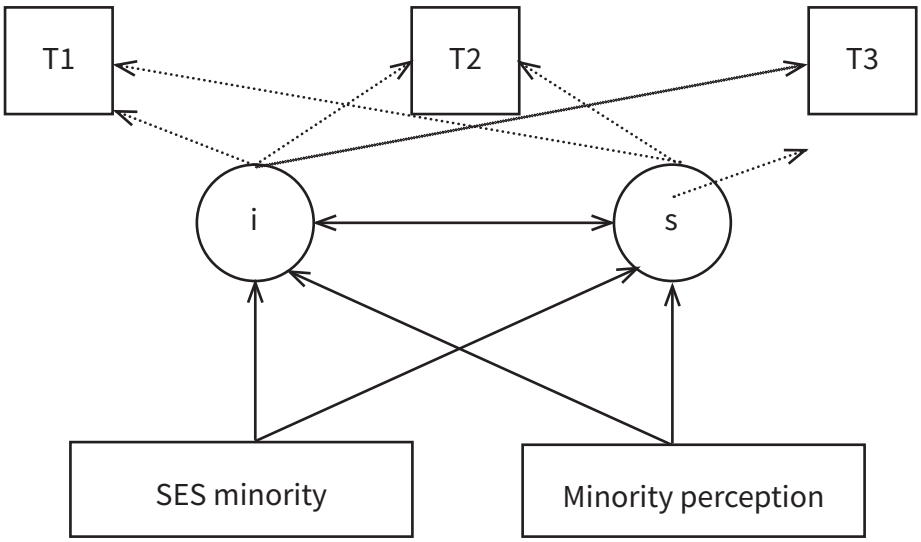
In the growth model, the individual perception of family SES as compared to other students' family SES was added to examine if the effect of perception of a students' SES status as minority or majority explained the relationship between SES and victimization. For main analyses, a set of 5 linear growth models with robust standard errors were run to evaluate individual as well as classroom level effects, on victimization development over time through the mediator (see Figure 1). Each of these models were run separately for self-reported victimization and peer-reported victimization to examine the differences and consistency between the self- and informant approach in bullying victimization behaviors (Cornell & Bandyopadhyay, 2009). In Figure 1, the intercept (*i*) represents victimization (individual baseline differences) as a latent variable at T1, T2, and T3, whereas the slope (*s*) represents the change in victimization over time from T1 to T2 to T3. Model I (M1) refers to a linear growth model, where both *i* and *s* are predicted by SES contextual minority status. Model II (M2) refers to linear growth where minority perception is added to the model, and both *i* and *s* are predicted by minority status + minority perception (corrected for perception).

For mediation analyses, we incorporated the 4-step causal effect approach as proposed by Baron and Kenny (1986) into the growth curve model in Model III, IV, and V as noted below. We first examined if change in victimization over time is predicted by minority status, when baseline differences of victimization at T1, T2, and T3 are predicted by minority status and minority perception, and whether victimization at baseline is mediated by minority perception (moderated-mediation model). To this end, Model III (M3) refers to linear growth where *i* is predicted by minority status + minority perception (direct effect), and this intercept prediction is mediated through minority perception (indirect effect), where *s* is predicted by minority status.

Next, we examined if change in victimization over time is predicted by minority status and minority perception, and mediated by minority perception, when baseline

differences of victimization at T1, T2 and T3 are predicted by minority status. To examine this, we ran Model IV (M4) which refers to linear growth where *s* is predicted by minority status + minority perception (direct effect), and this slope prediction is mediated through minority perception (indirect effect), when *i* is predicted by minority status. Thus, M4 examines if victimization change is predicted by minority status and mediated by minority perception.

Finally, we examined if change in victimization over time is predicted by minority status and minority perception, when baseline victimization is predicted by minority status and minority perception with mediation through minority perception. Thus, Model V (M5) refers to an extension of M3, examining linear growth where both *i* and *s* are predicted by minority status + minority perception, and the intercept prediction is mediated through minority perception. In the above models, all model parameters and standard errors are estimated using robust estimators for skewness.



Note. i = victimization at baseline at T1, T2, T3; s = victimization change over time from T1 to T2 to T3

Figure 5.1. *Growth model for baseline victimization and change in victimization over time predicted by minority status mediated through minority perception*

Table 5.1.

Descriptive statistics and zero-order correlations of variables in the study

		1	2	3	4	5
1	Age (T1)	1				
2	Age (T2)	.85**	1			
3	Age (T3)	.83**	.85**	1		
4	SES (T1)	-.12**	-.10**	-.10**	1	
5	SES (T2)	-.16**	-.14**	-.13**	.75**	1
6	SES (T3)	-.17**	-.15**	-.14**	.76**	.81**
7	Self-report victim (T1)	-.04	-.05	-.04	.00	-.05
8	Self-report victim (T2)	.03	.01	.01	.06	.02
9	Self-report victim (T3)	.01	.01	.01	.06	.05
10	Peer-report victim (T1)	-.06	-.04	-.06	.12**	.14**
11	Peer-report victim (T2)	-.02	.03	-.05	.11**	.11**
12	Peer-report victim (T3)	-.10**	-.08*	-.14**	-.03	.02
13	Minority Perception	.01	.04	.03	.21**	.19**
	n	1125	1028	1014	1118	1027
	M	13.15	13.32	13.60	4.91	5.11
	SD	1.16	1.21	1.18	2.29	2.29
	Range	10	8	7	9	9

Note. T1 = Time Point 1; T2 = Time Point 2; T3 = Time Point 3

6	7	8	9	10	11	12	13
1							
.00	1						
.03	.52**	1					
.02	.42**	.49**	1				
.12**	.12**	.10**	.09**	1			
.11**	.22**	.19**	.12**	.48**	1		
-.01	.13**	.14**	.10**	.42**	.38**	1	
.15**	.07*	.08*	.02	.11**	.13*	-.02	1
995	1084	1014	987	1233	1235	1236	1082
5.17	2.13	2.16	2.18	16.49	28.89	26.72	2.59
2.25	1.10	1.13	1.13	13.97	19.11	15.93	1.19
9	4	4	4	94	80	89	4

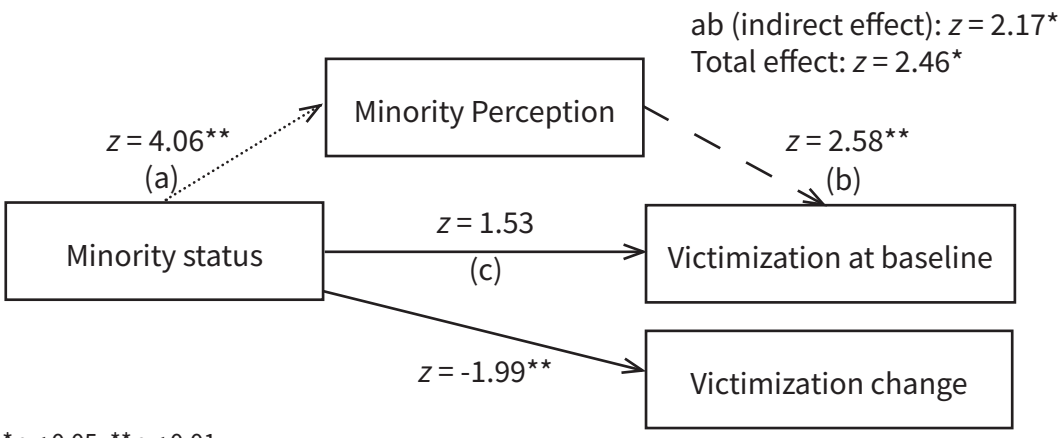
Descriptive statistics for main variables in the study are reported in Table 1. All main analyses were conducted in *R version 4.0.2* (R Core team, 2020). All statistics reported in the analyses used the FIML estimation (Schlomer et al., 2010). The intraclass correlations for the victimization variables, for both self- and peer-reported measures at T1, T2, and T3 were found to be in the range of 0.02 to 0.30 which is considered to be negligible (Shieh, 2016), thus not requiring formal multilevel modeling for analysis. The potential residual effects of nesting were addressed through robust standard error estimation, to resolve the issue of residual higher order nesting variance in the estimation of the natural variability of the main effects, namely the confidence intervals for significance interpretation (Tabatabai et al., 2014). A summary of all growth models is provided in Table 2.

RESULTS

Self-reported Victimization

Hypothesis 1 in the present study states that contextual minorities experience more victimization than contextual majorities at baseline T1, T2 and T3, and also longitudinally over time from T1 to T2 to T3. To test this, five models were analyzed, separately for self-reported victimization, and for peer-reported victimization. For self-reported victimization, M1 shows (Table 2) that there was no significant intercept or slope prediction by minority status, indicating that being a contextual minority in classroom as regards SES neither significantly predicts victimization experiences at T1, T2 or T3, nor predicts the change in victimization over time independently. In M2, when SES minority status and perception were included in the model as joint predictors, it was found that the intercept (*i*) was significantly predicted by minority perception but not minority status, and the slope (*s*) was significantly predicted by minority status but not perception, indicating that individual perceptions of minority significantly predict baseline victimization at T1, T2, and T3, and the change in victimization behavior over

time is predicted by the minority status of an individual when corrected for minority perception.



*p < 0.05; **p < 0.01

Note. .... (a) = direct effect from minority status to minority perception;
--- (b) = direct effect from minority perception to victimization;
__ (c) = direct effect from minority status to victimization

Figure 5.2. *Mediation model 3 for self-reported victimization*

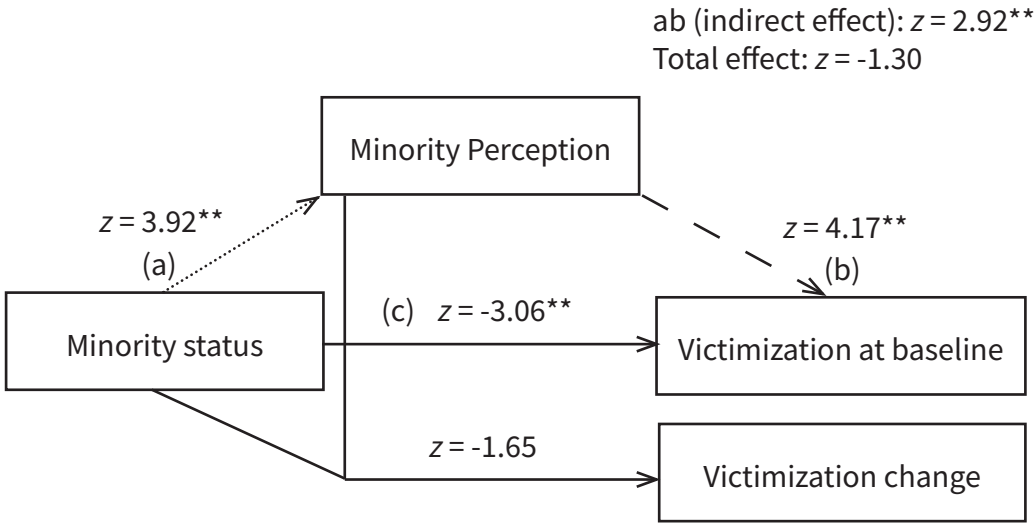
Hypothesis 2 of the present study states that the associations between contextual minorities and victimization is mediated by individuals' perceptions at baseline and over time, such that, contextual minorities experience more victimization as compared to contextual majorities, when they also perceive themselves as a minority. To test this, the 4-step mediation model was examined, following Baron and Kenny's (1986) causal effect approach. M3 (see Figure 2) shows that there is significant positive intercept prediction by minority perception, but not minority status, and there is a significant negative slope prediction by minority status. Furthermore, M3 shows that the total effect as well as the indirect effect of minority status and perception on intercept is significant in the positive direction, and the direct effect of status and perception on the intercept is not significant, thus indicating that change in victimization over time is predicted by minority status, when the intercept prediction by minority status is fully mediated via individual's perception of their minority status. M4 shows that *s* is neither

predicted by minority perception nor minority status, and there is no significant total or indirect effect on *s*, thus change in victimization over time is not mediated through perception. M5 shows that *s* is predicted by minority status in the negative direction when corrected for minority perception, when the prediction of *i* by minority status is mediated by minority perception in the positive direction. M5 also shows significant positive indirect as well as total effect of minority status on baseline victimization, and no direct effect of minority status on baseline victimization, thereby indicating that change in victimization over time is predicted by minority status when corrected for minority perception, and when intercept prediction by minority status is fully mediated via individual's perception of their minority status. Given that both M3 and M5 show significant outcomes, we conducted a chi-square test to compare if M5 is significantly better than M3. The χ^2 test for model difference shows that M5 does not fit significantly better than M3 ($\chi^2 = 1.43$, $p > .05$). Based on the 'Akaike information criterion' (AIC), M3 is the more appropriate and parsimonious model of significance for self-reported victimization, because M5 has more degrees of freedom reflecting the higher number of variables in the model.

Peer-reported Victimization

Examining hypothesis 1 for peer-reported victimization, M1 shows (see Table 2) that there was significant negative intercept prediction by minority status but no significant slope prediction, indicating that being a contextual minority in classroom with regards to SES significantly predicts victimization experiences at T1, T2 or T3, but does not predict the change in victimization over time. In M2, when SES minority status and perception were included in the model as joint predictors, it was found that the intercept was significantly predicted by minority perception in the positive direction, and by minority status in the negative direction, and the slope was significantly predicted by minority perception in the negative direction but not minority status.

This indicates that individual perception of minority has a significant positive effect on baseline victimization at T1, T2, and T3, and a significant negative effect on victimization behavior over time.



*$p < 0.05$; **$p < 0.01$
Note. .... (a) = direct effect from minority status to minority perception;
--- (b) = direct effect from minority perception to victimization;
__ (c) = direct effect from minority status to victimization

Figure 5.3. *Mediation model 5 for peer-reported victimization*

For the mediation model as indicated in hypothesis 2, following Baron and Kenny's (1986) causal effect approach, M3 shows that there is significant intercept prediction by minority perception in the positive direction and by minority status in the negative direction, but there is no significant slope prediction by minority status. Furthermore, M3 shows that there is a significant positive effect of minority status on minority perception, and of minority perception on the intercept. However, the total effect of status and perception on the intercept is not significant, because the direct and indirect effects in this model were found to be in the opposite direction, thus, cancelling each other out. M3 concludes that individual baseline differences for victimization are significantly predicted by minority status via complete mediation through minority

perception. M4 shows that *s* is predicted by minority status, but not perception, and there is no significant total or indirect effect on *s*, thus change in victimization over time is not predicted by minority status and perception through a mediation model of perception. M5 (Figure 3) shows that *s* is predicted by minority perception when the prediction of *i* by minority status is mediated by minority perception, and when the prediction by status of *s* is corrected for perception. Correcting for minority perception in slope prediction, M5 shows that there is significant *s* prediction by minority perception, and significant *i* prediction by minority status in the negative direction, and by minority perception in the positive direction. Furthermore, there is a significant positive indirect effect of minority status and minority perception on victimization change over time, but no significant total effect, thereby indicating that the slope is predicted by minority perception, when baseline victimization is predicted by minority status and perception, and this effect is fully mediated via individual's perception of their minority status (Figure 3). The chi-squared difference test shows that M5 is significantly better than M3 ($\chi^2 = 7.71$, $p < .005$), and thus, losing one degree of freedom to add more variables in the M5 is the more parsimonious model based on AIC in explaining variance. Hence, M5 is the better fitting model of significance for peer-reported victimization.

DISCUSSION

In the present study, we hypothesized that (a) contextual minorities experience more victimization than contextual majorities at baseline and over time, and (b) these associations between contextual minorities and victimization are mediated by individual perception. From Table 2, we can see that for self-reported victimization, hypotheses 1 and 2 were supported for baseline victimization as observed in M3 (see Figure 2), where baseline victimization was best predicted by minority status mediated through minority perception, thereby, contextual minorities

experience more victimization at baseline, and this association is mediated through increased perceptions of self as a minority. This finding concurs with past studies that show bullying is influenced by contextual factors, when these factors are perceived individually (Bellmore et al., 2004; Graham & Juvonen, 1998; Hutnik, 2004; Verkuyten & De Wolf, 2002). M3 also shows that though baseline scores are predicted by contextual SES and mediated through self-perceptions, in the long run, minority status predicts victimization change over time in the negative direction, when baseline victimization is predicted by minority status and mediated through minority perception as expected, concluding that longitudinally, being part of a minority predicts *less* victimization.

In line with this, for peer-reported victimization we observed that the effect of the indirect model and direct model were in opposite directions for baseline victimization, and the consequent total effect was also in the negative direction, i.e., when individuals can objectively be labeled a minority, they do perceive themselves as a minority, which in turn leads to the prediction of more victimization at baseline. In the comprehensive model, however, we observe that minority status is negatively associated with victimization, thus, being a minority predicts *less* victimization. A closer observation of the independent associations for both self- and peer-reported victimization measures thus point towards a support for hypothesis 1 and 2, though in the reverse direction for hypothesis 1 in the present study.

For both self- and peer-reports, we did find that perceptions of self *indeed* mediate the relationship between being objective minorities and victimization experiences. This shows support for the assumptions of mediation in hypothesis 2, but the direction of associations pertaining to hypothesis 1 are negative for direct and total effects from the predictor to the dependent variable as seen in peer-reported victimization for baseline as well as over time victimization, and for over time victimization as seen in self-reported analyses. Though the indirect effects are positive and significant in mediation analyses indicating sufficient support for the causal order

as stated in hypothesis 2 from minority status to minority perception to victimization. The reverse direct effect from minority status to victimization, however, points to the fact that the "true" mediator does not stand out *unequivocally* in the present study (Lemmer & Gollwitzer, 2017). It has been noted in the literature that numerical minority status implies an imbalance of power, which is recognized as an antecedent of bullying victimization (Olweus, 1993; Smith et al., 2018). A possible explanation for the reverse observation could be that being a part of a minority may ward off individual tendencies of self-blame for experiencing victimization, thus, protecting the adolescent from having a reputation as a victim. Bellmore et al., (2004) observe similar findings in their study with regard to ethnicity and adjustment of victims in classroom, where students who were part of an ethnic *majority* status were related to more adjustment problems for victims in the classroom. In their study, they note that self-blaming attributions would surface more assuredly, when an individual was part of the majority group holding the superior power, and was yet victimized. As opposed to this, when a victim was part of a minority group, experiences of victimization may have more possible attributions focusing on the context or other external characteristics rather than doubting one's own sense of self, thereby protecting the victim's self-esteem. A likely explanation for this observation could be an unaccounted mediator that offsets the mediating effects of minority perceptions of self, and protects students who are objective minorities in their context from increased victimization in the long run. Preacher and Hayes (2018) suggest that it is possible for multiple mediators or suppressors to exist in mediation analysis where one may contrast with the potential effects of the other, or that there are other pathways within the model (that operate through latent mediators) that may affect the outcomes in the opposite direction from those under consideration (VanderWeele & Vansteelandt, 2014). Thus, even when children who form a minority do in fact perceive themselves as a minority, other unmeasured mediators like tendency to evade self-blame among minority groups, may be offsetting the mediating effects of

self-perceptions of minorities in the present study, and contributing towards protecting *against* victimization in the long run.

It is also possible that victims adjust to their perceptions of self in the long run. It could be that they learn to deal with it on their own, thus leading to lowered experiences of victimization over time (Erum, 2018). This explanation also fits Sinha et al's. (2010) notion that the core of the Indian mindset constitutes of discrepancies related to inconsistencies in values and belief, and contradictions in behavior. The authors note in their study that "*Indians are enthused by ideals and abstract universalistic norms and principles, but behave as the situation demands*" (p. 4). Thus, there is a tendency to shape social behavior where individuals do "the needful" in an effort to accommodate to the situation. They do so especially in disabling contexts where poor quality of environment and low levels of development breed self-serving calculative behavior. The normative acceptance of bullying behaviors in India (Jaishankar, 2009; Kakar & Kakar, 2009), coupled with the Indian mindset to adjust to the demands of the situation in disabling contexts (Sinha et al., 2010), may contribute to children taking it upon their own to overcome victimization in time caused through minority perceptions of self. This change in victimization experiences further emphasizes the need to examine antecedents and consequences of bullying behavior within contexts over time, to be able to observe not just cross-sectional association, but rather prospective consistencies in victimization experiences through time.

Furthermore, the differences in model fit observed between self- and peer-reports confirm the notion that the combination of both peer and self-reports is advised in the study of bullying victimization and its correlates (Cornell & Bandyopadhyay, 2009). In the present study, while overall patterns, especially the mediating effect of self-perceptions, did not substantially differ between the alternate reports of victimization, we observed nuances in independent associations between self- and peer-reported victimization. The use of multiple measures for bullying victimization enabled us to

observe these attenuations, underlining the importance of this design characteristic of the present study. In the present study, we note that the observations reported through peer-reports of victimization, which are typically seen as a more valid indication of bullying than self-reports (Branson & Cornell, 2009), point to the conclusion that victimization at baseline, as well as over time, is affected by perceptions of self as a minority in a classroom.

In summary, the present study indicates that minority status of an individual with regard to SES within the classroom context plays a significant role in predicting victimization experiences, and predominantly, the reported associations work through an individual's perception of self as a socio-economic minority.

Limitations, Conclusions, and Implications for Future Research

The present study has limitations. We do not differentiate between the different forms of victimization experiences (physical, social, or relational; Malhi et al., 2015), and hence we cannot speak of their specific associations with SES. Data on perceptions of self as a minority with regard to SES were obtained at one time-point only. However, self-perceptions have been typically found to be stable over time (Diehl et al., 2006; McGrath & Repetti, 2002). Furthermore, given that past literature suggests insignificant associations between covariates such as gender, age, and SES (outside of classroom context) (Thakkar et al., 2020a), these covariates were not examined in the present study, which may be acting as mediators leading to decrease in victimization over time for contextual minorities that have not been accounted for in the present study. Additionally, we did not use explicit multilevel modeling to examine a model of transition of victimization behavior over T1, to T2, to T3 that includes slope shape and variance assumptions (Enders et al., 2018), to address the longitudinal and nested structure of data in the current study. However, given the negligible ICC's observed in the present study, and the use of robust standard errors with FIML estimation to correct

for the nested structure of the data, the present study maintains the methodical rigor required to make unbiased inferences.

In the present study, consistent with prior literature (Bellmore et al., 2004), we conclude that classroom level context with regard to SES plays a significant role in predicting victimization behavior in schools. Furthermore, with the added methodological strength of using peer-reports in combination with self-reports, in a longitudinal framework to examine the role of class level predictors, we found that contextual characteristics affect victimization cross-sectionally at baseline, but also longitudinally over time. More pertinent to our hypotheses, we demonstrated that this effect by the classroom level moderator is mediated through perceptions of self, where students who perceive themselves as a minority within classroom experience more victimization than students who belong to a minority but do not perceive themselves as such. However, in the long run, this perception of self predicts decreased victimization which may point to the normative beliefs, values, and context of the Indian society, warranting future research on this topic.

Table 5.2.

Growth model summary for self- and peer-reported victimization

	Independent Variable	**Dependent Variable**
	Self-reported Victimization	
Model 1	Minority status	Victimization at baseline
	Minority status	Victimization change
Model 2	Minority status	Victimization at baseline (joint predictors on the left)
	Minority perception	
	Minority status	Victimization change (joint predictors on the left)
	Minority perception	
Model 3	Minority status	Victimization at baseline
	Minority status	Minority perception
	Minority perception	Victimization at baseline
	Minority status	Victimization change
Model 4	Minority status	Victimization change
	Minority status	Minority perception
	Minority perception	Victimization change
	Minority status	Victimization at baseline
Model 5	Minority status	Victimization at baseline
	Minority status	Minority perception
	Minority perception	Victimization at baseline
	Minority status	Victimization change (joint predictors on the left)
	Minority perception	

Estimate	SE	*z*
0.14	0.09	1.58
-0.10	0.05	-1.94
0.14	0.09	1.57
0.07	0.03	2.80**
-0.11	0.05	-2.03*
-0.2	0.02	-1.25
0.13	0.09	1.53
2.36	0.58	4.06**
0.05	0.02	2.58**
0.11	0.05	-1.99*
-0.10	0.05	-1.92
2.36	0.59	4.04**
0.01	0.01	0.73
0.13	0.09	1.48
0.14	0.09	1.57
2.35	0.58	4.07**
0.07	0.03	2.80**
-0.11	0.05	-2.03*
-0.02	0.02	-1.25

	Independent Variable	Dependent Variable
	Peer-reported Victimization	
Model 1	Minority status	Victimization at baseline
	Minority status	Victimization change
Model 2	Minority status	Victimization at baseline (joint predictors on the left)
	Minority perception	
	Minority status	Victimization change (joint predictors on the left)
	Minority perception	
Model 3	Minority status	Victimization at baseline
	Minority status	Minority perception
	Minority perception	Victimization at baseline
	Minority status	Victimization change
Model 4	Minority status	Victimization change
	Minority status	Minority perception
	Minority perception	Victimization change
	Minority status	Victimization at baseline
Model 5	Minority status	Victimization at baseline
	Minority status	Minority perception
	Minority perception	Victimization at baseline
	Minority status	Victimization change (joint predictors on the left)
	Minority perception	

*$p < .05$. **$p < .01$.

Estimate	SE	*z*
-5.25	1.68	-3.14**
1.24	0.72	1.72
-5.40	1.77	-3.06**
1.29	0.31	4.17**
1.27	0.78	1.64
-0.47	0.16	-2.95**
-5.40	1.75	-3.08**
2.33	0.59	3.93**
0.99	0.28	3.60**
1.24	0.75	1.65
1.26	0.76	1.66
2.37	0.62	3.86**
-0.13	0.15	-0.90
-5.36	1.75	-3.07**
-5.40	1.77	-3.06**
2.33	0.59	3.92**
1.29	0.31	4.17**
1.27	0.77	1.65
-0.47	0.16	-2.95**