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### Authors

Lanza, H Isabella  
Echols, Leslie  
Graham, Sandra

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## A Silver Lining: The Role of Ethnic Diversity on Co-Occurring Trajectories of Weight Status and Peer Victimization Across Early Adolescence

Isabella Lanza H., Ph.D.<sup>a,\*</sup>, Leslie Echols, Ph.D.<sup>b</sup>, Sandra Graham, Ph.D.<sup>c</sup>

<sup>a</sup>California State University, Long Beach, Department of Human Development, Long Beach, California

<sup>b</sup>Missouri State University, Department of Psychology, Springfield, Missouri

<sup>c</sup>University of California, Los Angeles, Department of Education, Los Angeles, California

### Abstract

**Purpose:** Although it is well-established that higher weight status youth are at greater risk of peer victimization, it is unknown how weight status and victimization develop concurrently; thus, the current study examined the co-occurrence of weight status and victimization trajectories across early adolescence. Furthermore, the role of ethnicity, including a novel measure of individual-level ethnic diversity exposure at school, was evaluated.

**Methods:** Participants included 5,991 U.S. boys and girls (52% female; 32% Latino; 20% white; 14% East/ Southeast Asian; 12% African-American/black) from 26 urban middle schools. Participants self-reported height and weight as well as peer victimization across four timepoints from sixth to eighth grade. Survey data was collected between 2009 and 2014.

**Results:** Growth mixture modeling identified five weight status groups (Low, Moderate, High, Decreasing, and Increasing) and four victimization groups (Low, High, Decreasing, and Increasing) trajectories. Parallel growth mixture modeling indicated that adolescents in the moderate weight status trajectory experienced the least amount of victimization; adolescents in the high weight status trajectory reported the highest levels of increasing and stable-high victimization. Moreover, higher weight status youth exposed to greater ethnic diversity at school were more likely to experience low victimization.

**Conclusions:** The study highlights the importance of belonging to a normative weight status trajectory for experiencing low peer victimization, yet also shows the large variability in the victimization experiences of higher weight status youth. Greater exposure to ethnic diversity at school appears to play a significant role in offsetting risk of victimization among higher weight status adolescents.

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\*Address correspondence to: H. Isabella Lanza, Ph.D., California State University, Long Beach, Department of Human Development, 1250 Bellflower Blvd., Long Beach, CA 90840. Isabella.Lanza@csulb.edu (H.I. Lanza), LeslieEchols@MissouriState.edu (L. Echols), graham@gseis.ucla.edu (S. Graham).

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## Keywords

Co-occurring trajectories; Early adolescence; Ethnicity; Ethnic diversity; Obesity; Peer victimization; Weight status

At the forefront of child and adolescent health initiatives over the past two decades have been efforts to reduce the deleterious physical and psychosocial effects of obesity and peer victimization/bullying [1,2]. Although a wealth of literature has shown that overweight/obese youth are at greater risk of peer victimization/bullying than normal weight youth [3–5], little is known about the co-occurring development of these significant health issues. The current study aimed to expand on previous research by examining co-occurrence of weight status and peer victimization trajectories across early adolescence. Additionally, given past studies suggesting that ethnicity plays a significant role in associations between weight status and peer processes [6–9], the study utilized a novel measure of individual-level ethnic diversity exposure at school to assess its influence on the relationship between higher weight status and victimization.

Reflecting growing concern about childhood obesity rates, several studies in the past decade have identified weight status trajectories among U.S. children/adolescents. Similar trajectory patterns have been reported: nonobese (low risk of obesity, <95th body mass index [BMI] percentile, and across time), chronic/stable obesity (high risk of obesity, 95th BMI percentile, and across time), increasing BMI/adolescent-onset obesity (obesity risk is initially low but increases over time, particularly in early adolescence), and decreasing BMI/child-only obesity (obesity risk is initially high but decreases over time, particularly at the end of childhood) [10–12]. Unlike the abundance of U.S.-based weight status trajectory studies, most studies specifically evaluating victimization trajectories across childhood/adolescence have been conducted outside the U.S. [13–15], with some exceptions [16,17]. These studies report that the majority of adolescents do not experience victimization (40%–88%); some adolescents are exposed to moderate levels of victimization (11%–49%); and a smaller subset experience high levels of victimization, as either stable/chronic, increasing, or decreasing (specific trajectories vary between 2% and 31%).

Although the robust relationship between higher weight status and peer victimization is well-established [4,18], little is known about the co-occurring development of higher weight status and victimization in early adolescence, a developmental period when higher weight status youth are likely to face greater risk of victimization. Because early adolescence is marked by increased efforts to achieve social acceptance [19], the social context presents a significant challenge for higher weight status youth. Overweight/obese adolescents are often met with social stigma and exclusion [9,20]; they are also at greater risk of victimization/bullying, irrespective of gender [3–5]. Examining the continuity and change of weight status and victimization trajectories simultaneously will inform whether specific victimization trajectories are more likely to co-occur with particular weight status trajectories during this sensitive developmental period.

A growing number of studies have shown ethnicity to be a moderator of the relationship between weight status and peer processes, suggesting that ethnicity may inform the co-

occurring development of higher weight status and victimization. Available studies indicate that higher weight status among white youth places them at greater risk of peer stigma [8,9], victimization [6], and low acceptance [7] compared to other ethnic groups, particularly African-Americans. One explanation for these difference hypothesizes that peers' perception of an adolescent's weight status considers the ethnic group norm to which the adolescent belongs [7]. Although social identity [21] and social norms [22] theories suggest that adolescents deviating from the weight status norm are more likely to experience victimization due to not conforming to the group norm, it is important to recognize that weight status norms vary significantly across ethnicity [23]. Ethnic weight status norms may place some higher weight status youth at greater risk (e.g., Asian-American and white adolescents) or lower risk (e.g., African-American and Latino adolescents) of victimization based on fitting in better or worse with ethnic weight status norms.

An assessment of ethnic diversity exposure at school may further elucidate why weight status–victimization associations may differ among adolescents. Past studies suggest that in ethnically diverse contexts where there is a balance of power across ethnic groups, there is less peer victimization [24,25]. It is possible that multiple racial/ethnic groups in a setting support a variety of social norms, and thus there are fewer social consequences for deviating from the norm for any given group [26]. For higher weight status youth, this could mean a lower risk of victimization when exposed to greater ethnic diversity in school. Greater ethnic diversity exposure may decrease the saliency of weight status norms on social acceptance; thus, we hypothesize that greater ethnic diversity exposure at school may protect higher weight status youth from peer victimization.

The current study aimed to: (1) identify weight status and victimization trajectories in a large sample of ethnically diverse U.S. adolescents; (2) evaluate co-occurrence of weight status and victimization trajectories across early adolescence; and (3) examine the role of ethnicity on co-occurring weight status and victimization trajectories, including the influence of individual-level ethnic diversity exposure at school.

## Method

### Participants

The study utilized data from the UCLA Middle School Diversity Project, a longitudinal study comprised of almost 6,000 adolescents attending urban middle schools in Northern and Southern California aimed at evaluating the effects of ethnic diversity on developmental outcomes. Upon Institutional Review Board approval, 26 middle schools were recruited from the Los Angeles and San Francisco Bay areas: six in the fall of 2009 (Cohort 1), 14 in the fall of 2010 (Cohort 2), and six in the fall of 2011 (Cohort 3). Students were surveyed at four timepoints during a single class period (fall and spring of sixth grade, fall of seventh and eighth grade); students responded to questions independently using a paper-and-pencil survey as a graduate research assistant read instructions aloud.

Schools varied in sociodemographic differences by design, with some schools selected based on their ethnically diverse nature (i.e., no single ethnic group comprised a majority of the population) and others on the ethnic group in the numerical majority (e.g., two majority

African-American schools). Schools at the extremes of the SES continuum were avoided to reduce some of the confound between ethnicity and SES; only schools within a 20%–80% range of free/reduced-price meal eligibility were recruited. Across the 26 schools, 8,874 consent forms were distributed to sixth graders; 81% (7,217) were returned, with 83% (6,021) of parents granting child participation. Participants comprised 5,991 students (51.6% female;  $M = 11.63$  years, standard deviation [SD] = .41 at Wave 1). The sample was 32% Latino; 20% white; 14% East/Southeast Asian; 12% African-American/black; and 22% belonged to other ethnic groups, including multiethnic/biracial. Across waves, 374 adolescents (6.2%) did not have any BMI data and 54 (.9%) did not have any peer victimization data.

## Measures

**Ethnicity.**—Adolescents were asked, “What is your ethnic group?”, and they selected from one of 13 options designed to capture heterogeneity in the California school-aged population: American-Indian, black/African-American, black/other country of origin, East Asian, Latino, Mexican/Mexican-American, Middle Eastern, Pacific Islander (including Filipino), South Asian, Southeast Asian, white, multiethnic/biracial, and other. Some groups were combined for analyses: African-American/black, East/Southeast Asian, and Latino (including Mexican/Mexican-American), and dummy coded variables for African-American/black, East/Southeast Asian, Latino, and white were used (e.g., 1 = African-American/black and 0 = non-African-American/black).

**Individual-level ethnic diversity exposure at school.**—Ethnic diversity exposure was measured at the individual-level based on students’ course schedules rather than using a school-level measurement of ethnic diversity. Since students changed classrooms for each course, and the racial/ethnic composition of any given classroom could differ from the racial/ethnic composition of the school, each student was given a diversity score unique to his/her course schedule representing exposure to ethnic diversity across the school day [26]

$$D_C = 1 - \sum_{i=1}^g p_i^2$$

Using Simpson’s [27] diversity index, diversity across classes in each participant’s course schedule was calculated by subtracting from 1 the sum of squared proportions of classmates from each racial/ethnic group ( $i$ ) for the total number of racial/ethnic groups ( $g$ ) in the school. Diversity scores range between 0 and 1, with 0 representing no diversity and 1 representing maximum diversity (i.e., the highest probability that any two students drawn from a given participant’s list of classmates would be from different racial/ethnic groups). Because diversity scores were highly stable across waves ( $\alpha = .93$ ), scores were averaged across waves to create a mean score of individual-level ethnic diversity exposure ( $M = .66$ ,  $SD = .11$ , and range = 0–.82).

**Perceived rate of development.**—To account for the relationship between higher weight status and pubertal onset [28], a proxy measure of pubertal timing [29] asked participants at Wave 1, “Do you think you are developing (looking like a woman/man) faster

or slower than most girls/boys your age?” Response choices ranged from 1 = *much slower* to 5 = *much faster* (M = 3.16, SD = .98, and range = 1–5).

**Weight status.**—Self-reported height and weight was used to measure BMI. A BMI (kg/m<sup>2</sup>) percentile was calculated for each participant using age- and gender-specific BMI percentile distributions from the CDC 2000 growth charts [30]. BMI percentiles are commonly used for estimating weight status trajectories in children/ adolescents [10–12].

**Self-perceived peer victimization.**—Four items were adapted from the peer victimization scale [31] using the format of Harter’s Self-Perception Profile for Children [32]. Adolescents were presented with two statements separated by the word “but” with each statement reflecting high or low victimization. Participants first chose whether they were more like the kids described in the statement on the left or right side of “but” (e.g., “Some kids are *often* picked on by other kids BUT other kids are *not* picked on by other kids”), and then marked whether the chosen statement was “really true for me” or “sort of true for me.” Responses were scored on a four-point scale and reverse coded when necessary (e.g., 1 = not often picked on/ really true for me, 2 = not often picked on/sort of true for me, 3 = often picked on/sort of true for me, and 4 = often picked on/ really true for me). The other items assessed name-calling/teasing, gossiping/talking behind one’s back, and hitting/pushing. The items were averaged at each wave ( $\alpha = .77-.79$  across Waves 1–4); higher scores represent higher self-perceived victimization.

## Analyses

Growth mixture modeling (GMM) was used to identify separate trajectories of weight status and victimization; subsequently, parallel growth mixture modeling (PGMM) assessed co-occurring trajectories of weight status and victimization and covariates were added to the PGMM to examine predictors of co-occurring trajectories. Analyses were conducted with Mplus 8 [33]. GMM captures heterogeneity within the population by identifying different growth trajectories of a latent variable based on unique intercepts and slopes [34]. An increasing number of classes are estimated until an optimal model is identified. Statistical indices, including the widely used Bayesian information criterion (BIC; [17,35]) and Lo-Mendell-Rubin likelihood ratio test (LMR LRT; [36]) are used to identify the best-fitting model. PGMM estimates the unique developmental growth parameters of two distinct processes and how each process relates to the other across time [37]; thus, PGMM estimated the probability of cross-classification between a specific weight status trajectory and victimization trajectory (e.g., conditional probability of being in an increasing weight status trajectory and increasing victimization trajectory). Covariates of the co-occurring trajectories were evaluated within the PGMM. A well-validated three-step approach [38] accounted for classification error. Gender, ethnicity, rate of development, and ethnic diversity exposure were examined as predictors of co-occurring trajectory membership (e.g., the influence of greater ethnic diversity exposure on belonging to both a stable-high weight status trajectory and stable-high victimization trajectory).

## Results

Table 1 presents descriptive statistics and correlations for BMI percentile and peer victimization across timepoints.

### Trajectories of weight status and peer victimization

**Weight status trajectories.**—Model fit was evaluated across an increasing number of trajectory classes. The BIC and LMR LRT indicated that the five-class model was optimal (Table 2). Figure 1 presents the estimated weight status trajectories. As a reference, a BMI <5th percentile is underweight, BMI 85th percentile is over-weight, and BMI 95th percentile is obese. The smallest trajectory classes represented adolescents with decreasing (6.0%) or increasing (7.5%) BMI. The other three trajectories were characterized by: stable low BMI at the 20th percentile (19.9%); stable moderate BMI at the 50th percentile (24.3%); and stable high BMI around the 82nd percentile (42.3%).

**Peer victimization trajectories.**—The four-class model was identified as the best-fitting (Table 2). The LMR LRT indicated that the four-class model was optimal. Although the BIC was smaller for the five-class versus four-class model, the BIC plateaued at the three-class model; furthermore, the four-class model had meaningful and distinct trajectories. Figure 1 presents the estimated victimization trajectories. The smallest class (9.2%) was characterized by high levels of victimization; conversely, the largest class (52.9%) reflected low levels of victimization. The two remaining classes were characterized by decreasing (18.6%) and increasing (19.3%) victimization.

### Co-occurring weight status and peer victimization trajectories

**Parallel growth trajectories.**—After identifying the weight status and peer victimization trajectories with GMM, PGMM was utilized to assess co-occurring trajectories of weight status and victimization. Figure 2 presents the conditional probabilities of membership in one type of trajectory (i.e., victimization) given membership in another type of trajectory (i.e., weight status).

Compared to all other weight status trajectories, adolescents in the Moderate weight status trajectory had the highest probability of membership in the Low victimization trajectory (72.6%) and lowest probability of membership in the High victimization trajectory (.8%). The Low weight status trajectory fared similarly, albeit with lower probability in the Low victimization trajectory (61.9%), and slightly higher probability in the High victimization trajectory (5.3%). The High and Increasing weight status trajectories had similar probabilities across victimization trajectories. Less than half belonged to the Low victimization trajectory (44.6% High weight status; 43.9% Increasing weight status). Just greater than 10% were classified into the High victimization trajectory (12.3% High weight status; 11.2% Increasing weight status) and around 15% to 20% belonged to the Increasing victimization trajectory (18.3% High weight status; 14.3% Increasing weight status). Most adolescents in the Decreasing weight status trajectory were classified into the Low (46.0%) and Decreasing (34.1%) victimization trajectories; 19% were classified in the High victimization trajectory and few (.9%) in the Increasing victimization trajectory.



**Covariates of co-occurring trajectories.**—Covariates were simultaneously added into the PGMM using a multinomial regression framework to assess the likelihood of membership in specific co-occurring trajectories given selected predictors: gender, ethnicity (African-American/black, East/Southeast Asian, Latino, and white), rate of development, and individual-level ethnic diversity exposure at school. Table 3 presents covariate results indicating the likelihood of belonging to a particular peer victimization trajectory (reference class: Low victimization trajectory) given membership in the High weight status trajectory; key covariate findings for the other weight status trajectories (Moderate, Low, Increasing, and Decreasing) are included below.

Among those in the Moderate weight status trajectory, no covariates were associated with membership in a specific victimization trajectory. However, among those in the Low weight status trajectory: lower levels of ethnic diversity exposure predicted to the Increasing victimization trajectory ( $\beta = -2.61$ , odds ratio [OR] = .07, and  $p < .05$ ); females were less likely to belong to the High victimization trajectory ( $\beta = -2.05$ , OR = .13, and  $p < .001$ ); and white students were less likely to belong to the Decreasing victimization trajectory ( $\beta = -1.58$ , OR = .21, and  $p < .01$ ) compared to the Low victimization trajectory.

As noted in Table 3, adolescents in the High weight status trajectory with greater exposure to ethnic diversity had a higher like-lihood of belonging to the Low victimization trajectory compared to any other victimization trajectory (High:  $\beta = 4.32$ , OR = 75.19, and  $p < .001$ ; Increasing:  $\beta = 4.16$ , OR = 64.07, and  $p < .001$ ; Decreasing  $\beta = 2.82$ , OR = 16.78, and  $p < .001$ ). No covariates predicted membership in specific victimization trajectories for the Increasing weight status trajectory. For the Decreasing weight status trajectory, adolescents with lower levels of ethnic diversity exposure ( $\beta = -5.66$ , OR = .003, and  $p < .01$ ), as well as girls ( $\beta = 1.07$ , OR = 2.92, and  $p < .05$ ), had a higher likelihood of belonging to the High versus Low victimization trajectory.

## Discussion

A critical aspect of this study was understanding how weight status and victimization trajectories are linked across early adolescence, as well as evaluating whether ethnic diversity exposure at school can inform why some higher weight status youth are more vulnerable to experiencing victimization. Adolescents who fell in the middle of BMI across early adolescence experienced the least amount of victimization, supporting social norm theories highlighting the benefits of conforming to the group norm. On the other hand, adolescents with a higher weight status across early adolescence reported the highest levels of increasing and stable-high victimization. Adolescents' exposure to ethnic diversity in school was a significant predictor of co-occurring weight status and victimization trajectories. Adolescents in the High weight status trajectory exposed to greater ethnic diversity were more likely to belong to the Low victimization trajectory compared to other victimization trajectories, signifying the importance of the ethnic context in understanding the relationship between weight status and peer victimization in adolescence.

Adolescents in the Moderate weight status trajectory fared best—close to 75% were classified in the Low Victimization trajectory and very few (less than 1%) belonged to the High



Victimization trajectory. The robust association between falling in the middle range of BMI and low victimization across early adolescence highlights the significance of fitting in with the group norm during this period. Adolescents in the 50th percentile of BMI typically reflect an average body size, suggesting that being closer to the overall group weight status norm substantially decreases risk of victimization, especially stable-high victimization. Moreover, neither gender, ethnicity, nor ethnic diversity exposure were associated with victimization trajectories among those in the Moderate weight status trajectory, further bolstering evidence that being part of the overall group norm for weight status is particularly salient for offsetting victimization.

Although it was expected that those in the highest weight status trajectory would experience the most problematic victimization (and about a third were classified into the High or Increasing victimization trajectories), it was not expected that almost half would be classified in the Low victimization trajectory. These results show notable variability of victimization experiences across higher weight status youth, and school ethnic diversity exposure may ultimately explain why victimization experiences vary more than expected among higher weight status youth. Adolescents in the High weight status trajectory exposed to greater ethnic diversity were more likely to belong to the Low victimization than any other victimization trajectory, suggesting greater ethnic diversity exposure may be a protective factor against victimization among high weight status youth. Greater ethnic diversity likely promotes multiple social norms related to beauty/physical appearance (not just white, Westernized ideals that promote thinness). Thus, there may be greater opportunities for adolescents with differing body sizes to fit in with a norm, thereby decreasing risk of victimization stemming from deviation from social norms [26].

Ethnic diversity exposure in school settings is a potentially modifiable contextual variable that warrants further attention. The findings of this study suggest that greater exposure to ethnic diversity in school settings may promote a more inclusive environment where higher weight status youth are likely to find peers that are accepting of them. Greater ethnic diversity may not only build tolerance but ultimately increase acceptance of differing body sizes and ideals of beauty. Whether this is due to an increased number of weight status norms is unknown, but the results indicate there is a benefit of having greater ethnic diversity exposure at school for higher weight status youth. Examining underlying mechanisms that decrease victimization risk among higher weight status youth is critical because it may provide higher weight status youth the opportunity to focus on healthier behaviors versus self-blaming attitudes that increase risk of psychosocial maladjustment. Future work should take a more nuanced approach to understanding the role the ethnic context plays in weight status- victimization associations, including the representation of particular ethnic groups in school, as differences in weight norms across ethnicity may significantly contribute to risk of victimization.

Limitations of the study need to be acknowledged. The study relied on self-reported versus measured BMI. Although past research has indicated that self-reported BMI is generally consistent with direct measurement among adolescents [39,40], a higher likelihood of missing data and underreporting of weight is common. Underreporting and missing data are an impediment, but utilizing multiple waves of data across early adolescence increased the

validity and availability of BMI data for trajectory analyses. Additionally, the study was limited in its ability to parse out the effects of ethnicity versus SES on weight status and victimization. The study avoided the extremes of the SES continuum by only recruiting schools within the 20%–80% eligibility for free/reduced-price meals to reduce SES variability in the sample; however, the significance of the study findings need to be weighed against the lack of SES measures in the analyses.

Despite these limitations, the current study addressed significant research questions pertaining to the co-occurrence of weight status and peer victimization in adolescence. The findings speak to the importance of fitting in with the social norm, in this case reflecting the 50th BMI percentile. As social norms theories emphasize [21,22], fitting in with the peer norm is vital to social acceptance in early adolescence, and body size norms are not an exception. This study also captured the variability of victimization experienced by higher weight status youth. Greater ethnic diversity exposure appears to be a key aspect of the school context that should not be disregarded; understanding the aspects of ethnic diversity that may buffer higher weight status youth from peer victimization may ultimately have a significant impact on antibullying/victimization efforts.

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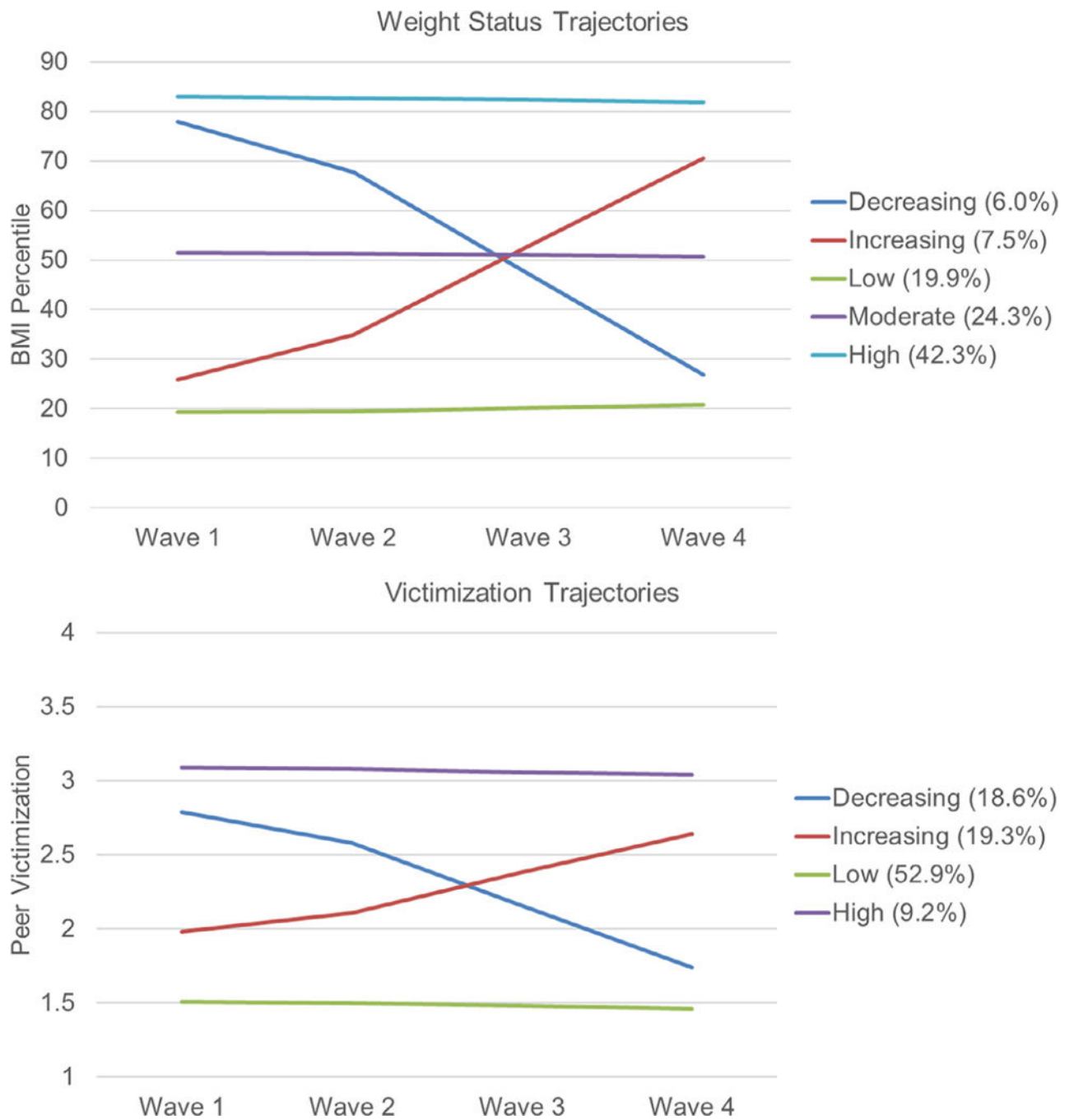
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### **IMPLICATIONS AND CONTRIBUTIONS**

This study examined co-occurring trajectories of weight status and peer victimization across early adolescence. Using a novel measure of individual-level exposure to ethnic diversity, the study indicates that greater ethnic diversity in schools may offset some of the risk of victimization among higher weight status adolescents.



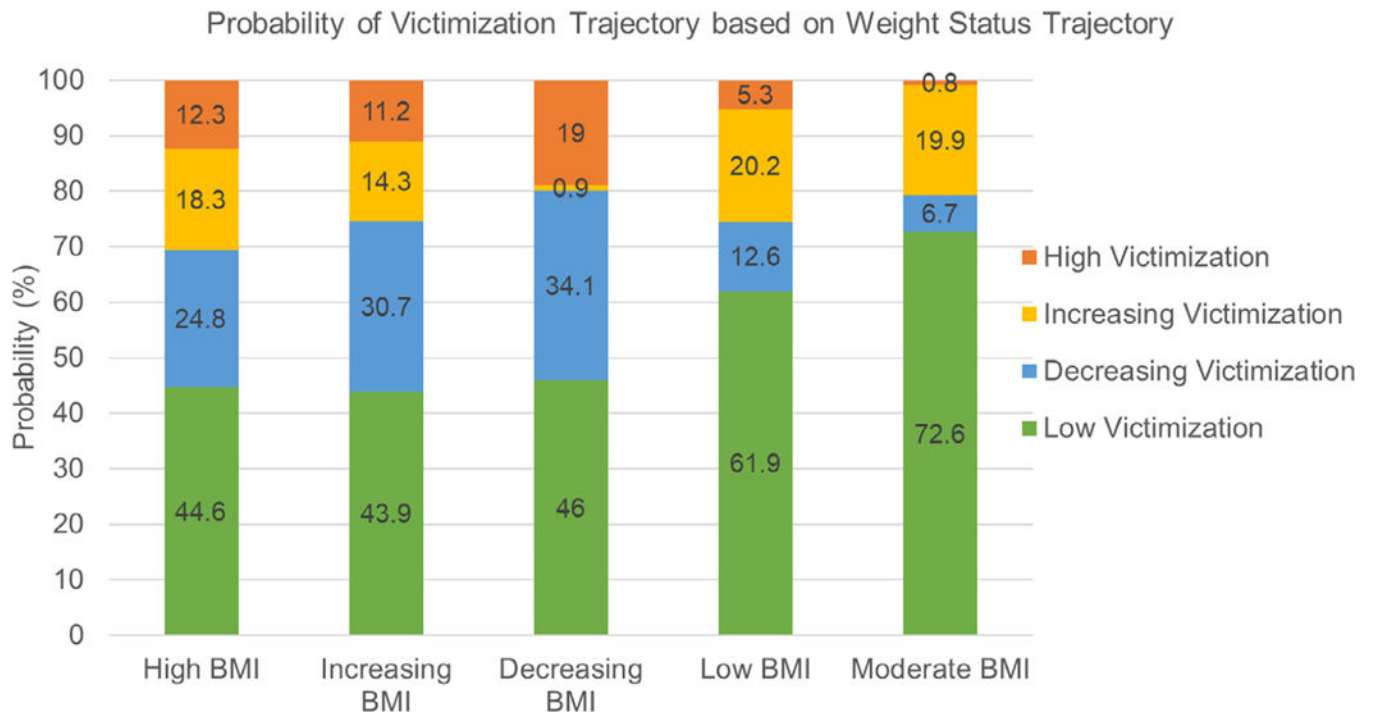
**Figure 1.** Weight status and peer victimization trajectories across early adolescence.

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**Figure 2.**  
Co-occurring weight status and peer victimization trajectory membership.



Descriptive statistics and correlations for BMI percentile and self-perceived peer victimization

**Table 1**

	Victimization W1	Victimization W2	Victimization W3	Victimization W4	BMI percentile M (SD)
BMI W1	.11*	.12*	.11*	.07*	57.75 (30.33)
BMI W2	.11*	.13*	.09*	.06*	57.19(29.58)
BMI W3	.09*	.10*	.11*	.05*	57.24(29.45)
BMI W4	.08*	.09*	.09*	.05*	57.57 (28.40)
Victimization M (SD)	1.93 (.80)	1.99 (.79)	1.99 (.79)	1.83 (.75)	

BMI = body mass index; M = mean; SD = standard deviation; W1=Wave 1—fall sixth grade; W2 = Wave 2—spring sixth grade; W3 = Wave 3—fall seventh grade; and W4 = Wave 4—fall of eighth grade.

\*  $p < .01$ .

**Table 2**

Model fit indices of growth mixture modeling trajectories

Trajectories	Log likelihood	Free parameters	BIC <sup>a</sup>	Adjusted BIC	AIC <sup>b</sup>	LMR LRT <sup>c</sup> p value for k-1	Entropy
For weight status							
1	-81772.58	7	163605.58	163583.34	163559.15	N/A	N/A
2	-79260.64	10	158607.61	158575.83	158541.28	.00	.80
3	-78770.59	13	157653.42	157612.11	157567.19	.00	.74
4	-78615.80	16	157369.73	157318.89	157263.60	.00	.73
5	-78523.31	19	157210.65	157159.27	157084.62	.02	.75
6	-78399.57	22	165989.07	156919.16	156843.14	.13	.70
For weight status							
1	-23143.65	7	46348.13	46325.88	46301.31	N/A	N/A
2	-21627.70	10	43342.29	43310.51	43275.41	.00	.72
3	-21475.12	13	43063.19	43021.88	42976.24	.00	.67
4	-21284.20	16	42707.40	42656.56	42600.39	.00	.69
5	-21231.31	19	42627.70	42567.32	42500.62	.17	.68

<sup>a</sup>BIC = Bayesian information criterion.

<sup>b</sup>AIC = Akaike information criterion.

<sup>c</sup>LMR LRT = Lo-Mendell-Rubin likelihood ratio test.

Estimated odds ratios (ORs) of peer victimization trajectory membership based on covariates among the high weight status trajectory

**Table 3**

	Reference class: low victimization					
	versus decreasing victimization		versus increasing victimization		versus high victimization	
	$\beta$ (SE)	OR(95%CI)	$\beta$ (SE)	OR(95%CI)	$\beta$ (SE)	OR(95%CI)
Female versus male	-.32(.16)*	.73(.54-.98)	-.12(.18)	.89(.62-1.27)	-.21(.18)	.81(.57-1.16)
African-American/black	.70(.28)*	2.02(1.17-3.49)	-.07(.33)	1.08(.56-2.06)	.53(.31)	1.69(.93-3.08)
East/Southeast Asian	-.39(.34)	.68(.35-1.32)	-.65(.37)	.52(.25-1.09)	-.26(.35)	.77(.39-1.54)
Latino	.56(.23)*	1.75(1.12-2.74)	-.10(.25)	.90(.55-1.48)	.20(.26)	1.22(.74-2.01)
White	-.40(.30)	.67(.37-1.20)	-.26(.30)	.77(.43-1.37)	-.99(.42)*	.37(.16-.85)
Rate of development	.16(.08)	1.17(.99-1.38)	.16(.11)	1.17(.94-1.47)	.02(.11)	1.02(.82-1.26)
School ethnic diversity	-2.82(.71)***	.06(.01-.24)	-4.16(.89)***	.02(.00-.09)	-4.32 (.74)***	.01(.00-.06)

CI = confidence interval; OR= odds ratio; SE = standard error.

\*  $p < .05$ .

\*\*\*  $p < .001$ .