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Effects of Student Participation and Teacher Support on Victimization in Israeli Schools

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Abstract

Much of the research literature on school violence has focused narrowly on individual characteristics of troubled youth, without careful examination of contextual factors that might influence violence and victimization in school settings. There are also very few school violence studies involving schools and children from the Middle East. This study examines the associations between Student Participation in Decision-Making in their Schools, Teacher Support, and Student Victimization (by students and staff members) in a nationally representative sample of 10,254 students in 164 junior high and high schools in Israel. Data were analyzed using structural equations modeling for full group analyses, and for group comparisons of patterns between junior high, high school, male, female, and Jewish and Arab students. Across all models, higher levels of teacher support were associated with lower rates of victimization (for both students and teachers). Participation in Decision-Making was also related to Victimization, with varying patterns depending on students' gender and ethnicity. The model explained more variance in the victimization outcomes for boys than for girls and for Arab Students than for Jewish Students. The findings are consistent with the research literature on teacher support, however they raise questions about culture and gender effects when considering participation and school contexts.

Researchers in many areas of education including motivation, cognition, learning, and mental health have emphasized a growing need for the examination of interpersonal context and climate in school environments (Battistich, Solomon, Watson, & Schaps, 1997; Fine, 1991; Noddings, 1988, 1992; Roeser, Midgley, & Urdan, 1996; Rosenholtz, 1984; Stevenson & Ellsworth, 1993; Stipek, 1988; Turner et al., 2002; Voelkl, 1995). While this emphasis on context has been echoed in the broader educational literatures, it is a relatively recent development in research on school violence (Astor & Meyer, 2001; Astor, Vargas, Pitner, & Meyer, 1999; Baker, 1998a; M. Furlong & Morrison, 2000). The youth and school violence literatures have traditionally been driven by theories that focus at the individual level on maladaptive personality traits or social skills “deficits” in aggressive youth (K. A. Dodge & Newman, 1981; K. A. Dodge & Tomlin, 1987; Feshbach, 1964; Huesmann, 1988). Where there has been attention to context as it relates to aggression, the emphasis has been mostly limited to family settings or neighborhoods (Gorman-Smith, Tolan, Loeber, & Henry, 1998; Gouze, 1987; Loeber & Dishion, 1984; Loeber & Stouthamer-Loeber, 1986; Patterson & Stouthamer-Loeber, 1984) with little or no mention of school contexts. With the exception of research on delinquency (Gottfredson, 2001), bullying (Olweus, 1993; P. Smith & Sharp, 1994), and some preliminary work on democratic climates in schools (I. A. Hyman & Snook, 2000), there has been very little empirical research to connect the fields of school climate and school violence.

This inquiry bridges research on school climate and school violence, two areas that have traditionally been separate in the educational literature. The research also examines contextual effects on student victimization in a large-scale, nationally representative sample of Israeli schools. From a theoretical as well as practical perspective, there is a pressing need to gain

greater cross-cultural perspectives on school context and violence as the majority of the current research literature on school violence prevention has centered solely on European or Anglo samples (Gottfredson, 2001, 1990; Olweus, 1993; P. Smith et al., 1999; P. Smith & Sharp, 1994). Recent projects comparing schools from Israel with schools in Ventura County in California provide support for cross-cultural transferability as they reveal very similar patterns across cultures in school context and violence-related variables (Benbenishty & Astor, in press). These pattern similarities warrant a closer examination of cultural dynamics both across and within countries and ethnicities. Although the cultural element of this research will not be the sole focus of the current study, it is noteworthy to recognize as it adds an important and missing perspective to the school violence research literature that has focused primarily on Anglo- and European samples.

Background

School Climate and Control

In attempts to understand how elements of the school climate relate to student victimization, it is important to consider the nature of the organizational and disciplinary climate in the school setting. Much of the literature examining disciplinary climates in schools has largely been conceptualized with *control* as a recurring theme (Anderson, 1982; Fine, 1986; I. A. Hyman, 1990, 1997; Hyman & Snook, 2000; Katz, 1999; Kingery, 2001; Noguera, 1995). Noguera (1995, p.190) suggests that “in their desire to demonstrate toughness and reassure the public that they are in control, school officials have become increasingly rigid and inflexible when meting out punishment upon students who violate school rules, even when the infractions are not of a violent nature.” Hyman and Snook (2000) refer to this heavily structured, rigid, controlled disciplinary environment of schools as indicative of an “authoritarian” philosophy of

schooling. They, in addition to others (Baker, 1998b; Katz, 1999; Noguera, 1995) note that such rigid controlled structures only exacerbate the resentment and alienation that many students at risk already feel towards their schools.

In contrast to this authoritarian environment, Hyman and Snook (2000) propose the benefits of more democratic models of schooling whereby students are actively encouraged to participate in the decision-making process of school policies. It is thought that when student views are respected and valued, students will be more invested in their learning and will take greater responsibility for their behaviors. Encouraging student involvement in creating school policies affords students a sense of ownership, belonging, and engagement, which is thought to be beneficial, especially for those who are at risk for failing out due to academics and/or behavioral problems.

Hyman and Snook (2000) discuss the authoritarian/democratic climate distinction in great detail and describe a study examining differences in students' reactions to their teacher's absence in classrooms that were designated as either authoritarian or democratic in emphasis. In their study, they characterized authoritarian climates by the extent to which the teacher used external controls based on assertions of power, emphasis on competition, and "reflexive obedience." Democratic classrooms emphasized cooperation, mutual goal setting, and shared responsibility. According to the authors, in these democratic classrooms, "Students behave because it is the right thing to do and because they respect the rights of others." (Hyman & Snook, 2000, p.495) In a pilot study, the researchers compared the behavior of students in these two different types of classrooms after asking their teachers to leave the classroom for 45 minutes.

The authors described notable differences between the behaviors of students in authoritarian versus democratically run classrooms following the departure of their teacher.

After the first 30 minutes, the authoritarian classrooms “deteriorated into complete chaos” (Hyman & Snook, 2000, p. 496). In these classrooms, the students’ model for control was that of punishment by an external authority – the teacher. As time passed without the teacher present in the classroom, the students in the authoritarian classes became more unruly. The authors describe bullying, fighting, and threats as characteristic of these classrooms. In contrast, the students in the democratic classrooms behaved with much more self-control, having “internalized” the values of their classrooms. “They did seatwork, formed work groups, or quietly observed the playground. There was no fighting or scapegoating as there was in the authoritarian classes.” (Hyman & Snook, p.496).

Early studies in social psychology reveal similar themes in the behavior of school-age boys under different leadership styles within camp settings. White and Lippitt (1960) conducted studies with small groups of 5th grade boys placed under autocratic, democratic, and laissez-faire adult leadership. The results of both quantitative and qualitative observations indicated that intrinsic-work-motivation and friendliness were highest under democratic leadership, while loss of individuality, discontent, and hostility were highest under the autocratic leadership conditions (Lippitt & White, 1958; White & Lippitt, 1960). Studies by Hyman and colleagues (1998; 2000), as well as many other research studies on student participation and democracy in schools raise important questions concerning social climate and violence in schools. More recently, international researchers have also made extensive efforts to advocate for the incorporation of student views into reform efforts in schools (Holdsworth & Thomson, 2002; Kilpatrick, 2001; Mitra, 2002; Pekrul, 2002; Rudduck, Arnot, Reay, & Lanskey, 2002; Rudduck & Flutter, 2000). Their studies indicate that schools which actively invite and respond to their students’ ideas

regarding policy, curriculum, and day-to-day school procedures demonstrate improved attendance, academic progress, test scores, and student behavior.

A substantial body of research also supports the benefits of teacher-student relationships that are caring and supportive. Researchers as well as practitioners have emphasized positive teacher-student relationships as integral to effective learning and behavior in schools (Baker, 1998a, 1998b, 1999; Battistich et al., 1997; Croninger & Lee, 2001; Kagan, 1990; Lantieri, 1995; Marachi, Friedel, & Midgley, 2001; Noddings, 1988, 1992). The majority of studies examining either participatory climate or teacher support, however, have been qualitative, and have not examined these issues systematically with large numbers of schools or with large groups of students or teachers. A major contribution of the present study is that it will be the first to specifically examine the relation between student participation in decision-making, teacher support, and victimization of students in a large scale, nationally representative sample of students.

Three studies that investigate context, victimization, and fear of attending school are important to highlight in framing the present study (Astor, Benbenishty, Vinokur, & Zeira, in press; Benbenishty, Astor, Zeira, & Vinokur, 2002). These studies examined context, victimization, and fear of attending schools at elementary school, junior high, and high school levels. In all of these inquiries, school climate consisted of the following four aspects of environment: consistent school policy on violence; teachers' support of students, students' participation in decision-making, and good maintenance of school grounds. The present research narrows in on two specific parts of this conceptualization: students' participation in decision-making in the school and students' perceptions of teacher support.

Victimization in Schools

In a study investigating social dynamics and physical space in schools, Astor and colleagues (1999) found that unsupervised areas or areas considered “un-owned” by school personnel and students were more likely to be the sites of violence and victimization. This study brought much needed attention to the issue of *student victimization* that occurs *on school grounds*. Whereas much of the previous research on youth violence had been acontextual, without specification of the setting where the violence or victimization had occurred, studies by Astor and colleagues have focused in solely on the school venue to more accurately frame the immediate contextual issues that might relate to the violence. This focus on the school setting was an important development for understanding the complex issues of context and victimization in schools.

Students’ victimization experiences in schools occur in many forms. Studies that have examined victimization in schools include verbal and emotional abuse, direct and indirect threats, theft and destruction of property, sexual harassment, mild and severe physical assault, and the threat with and use of weapons (Astor, Meyer, & Behre, 1999; Astor, Meyer, & Pitner, 1999; Benbenishty, Astor et al., 2002; M. Furlong, Chung, Bates, & Morrison, 1995; Zeira, Astor, & Benbenishty, 2002). In studies examining the peer social context and student victimization in elementary and junior high schools, researchers found that awareness of risky peer behaviors on school grounds is related to students’ reports of victimization in school (Astor, Benbenishty, Haj-Yahia et al., in press; Astor, Benbenishty, Marachi et al., 2002).

The aforementioned studies examined student-to-student victimization. However, it is also important to attend to the victimization of students by teachers/staff. Victimization of students by teachers/staff persists in many schools despite the illegal status of corporal punishment in the schools of continental Europe, England, Japan, Israel, Puerto Rico, the former

Communist nations, Ireland, parts of Australia, Canada, New Zealand (at the high school level), 27 U.S. states, many suburban upper-middle-class U.S. schools, and most of the largest U.S. cities (Hyman et al., 1997). Perhaps because of the stigma involved, and the legal implications for teachers and schools, this topic has only recently begun to receive serious attention in the research literature (Benbenishty, Zeira, & Astor, 2002; Weis & Fine, 1998; Zeira et al., 2002). The present study will add to our limited understanding of dynamics between school climate and student victimization by teachers/staff.

Gender, Grade-level, and Culture

Research suggests that rates of violence and victimization often vary by gender, grade-level, and ethnicity. In general, research trends have shown that boys both perpetrate and endure victimization at higher rates than do girls (Behre, Astor, & Meyer, 2001; Nansel et al., 2001; Olweus, 1993). Among older students, research findings suggest that males engage in higher levels of physical aggression whereas girls engage in relational/social types of aggression to a greater extent than do males (Crick & Bigbee, 1998; Olweus, 1993). Patterns with respect to school and grade levels are less conclusive. Some studies indicate relatively high victimization in the very young grades with decreasing prevalence until the 9th grade (Olweus, 1993) while others report a relatively higher likelihood of victimization in middle and junior high schools settings (e.g. Astor, Meyer, & Pitner, 2001; Pellegrini & Bartini, 2000)

In general, school violence research has revealed some ethnic and cultural variations in students' experiences of violence on schools grounds (Hammond & Yung, 1993; Hammond & Yung, 1991; Kachur et al., 1996; Kann, Kinchen, Williams, Lowry, & Grunbaum, 2000; Kaufman et al., 2000). The majority of research on youth violence in schools has been conducted in Anglo-Saxon countries with predominantly European models of schooling. This

study draws from a national sample of students and teachers in Israel and is among the first of a series of inquiries examining school climate and victimization in schools in the Middle East (Astor, Benbenishty, Marachi et al., 2002; Astor, Benbenishty, Vinokur et al., in press; Astor, Benbenishty, Zeira, & Vinokur, 2002; Benbenishty, Astor et al., 2002; Benbenishty, Zeira, & Astor, 2000; Benbenishty, Zeira et al., 2002; Zeira et al., 2002). Students in the present study are from two culturally diverse groups within the same country – Israeli Arabs and Israeli Jews.

Schools within the Israeli educational system are organized across ethnic and religious lines. Jewish and Arab students attend separate schools and are taught in separate languages (Hebrew and Arabic). The research literature on schools in Israel describes Jewish schools and culture as similar to industrialized European cultures with relatively liberal views regarding gender roles. In contrast, the Israeli Arab schools and culture have been described as more conservative, hierarchically oriented, and patriarchal (Amir, Haliva, & Sagi, 1976; Haj-Yahia, 1998a, 1998b; Pitner, Astor, Benbenishty, Haj-Yahia, & Zeira, 2002, in press-a, in press-b; Zeira et al., 2002; Ziv, Green, & Guttman, 1978). There are also substantial differences in socioeconomic status between Jewish and Arab families within the country. Arab families in Israel as a whole are considerably more disadvantaged than Jewish families on a broad array of socioeconomic indicators. These economic disparities may have important effects on neighborhood violence as well as violence that carries into the school setting.

Prior research studies on schools in Israel have indicated cultural differences in rates and severity of violence and victimization. Results from the first national survey on school violence indicate that Arab students report higher rates of victimization with severe acts of violence (e.g. threats with a weapon), whereas Jewish students reported higher rates of less severe violent behavior (such as being cursed at, mocked, or insulted) (Benbenishty et al., 2000). The study

also found that Arab students report more staff maltreatment than do Jewish students. It is unclear whether patterns of school climate and victimization follow these trends as well. From a developmental perspective, one might contend that although rates of violence may differ between cultures, the *relations* between contextual elements and victimization may reveal similar patterns, regardless of culture or ethnicity. With these grade level, gender, and cultural variations in mind, the present research inquiry has been designed to examine the patterns of school context and victimization for the overall sample as well as comparatively for males and females in Jewish and Arab junior high and high schools.

Figure 1. Theoretical model of school climate variables and student victimization

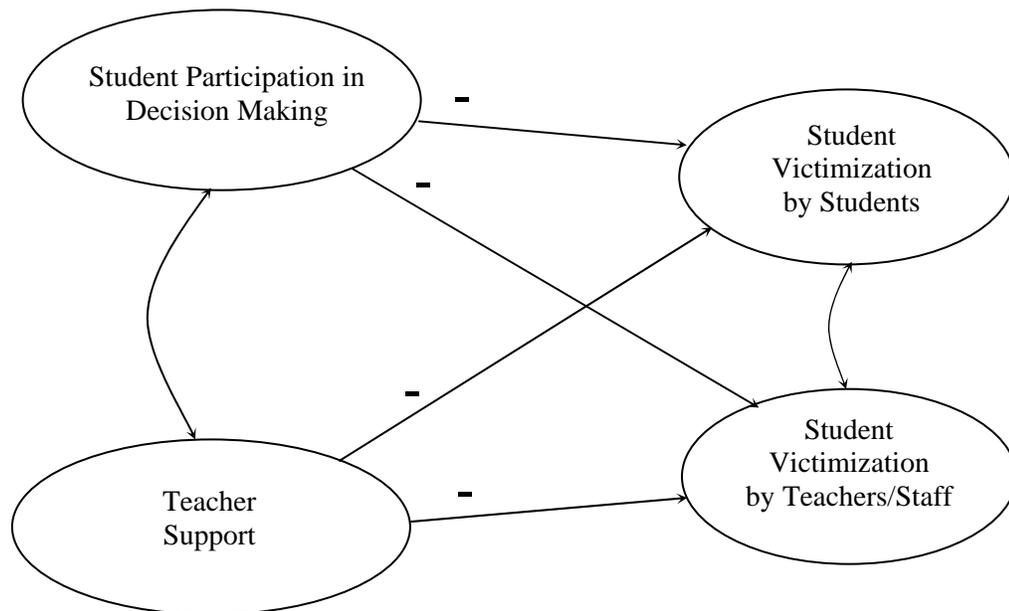


Figure 1 above outlines the initial theoretical model reflecting the following research hypotheses.

1) Student participation in the decision-making of the school will lead to decreased student victimization by students and by staff. Assuming that an environment with increased opportunities for participation in decision-making is reflective of a more democratic climate, rates of victimization would be expected to be minimized when the “participation” is maximized. Research suggests lower rates of aggression among students in more democratic environments (Hyman & Perone, 1998; Hyman & Snook, 2000; White & Lippitt, 1960). One would also expect that in settings where there is greater consideration of student perspectives/views, there would also be less student victimization perpetrated by teachers/staff.

2) Student perceptions of teacher support will lead to decreased student victimization by students and by staff. Research suggests beneficial effects of supportive student-teacher relationships on student behavior (Baker, 1998a, 1998b, 1999; Marachi et al., 2001; Noddings, 1988, 1992). Similarly, one would expect that greater teacher support would lead to less student victimization by teachers/staff.

3)The above relationships will be examined across school level, gender, and cultural groups.

Method

Background of the Study

The dataset for this study is drawn from a subset of a large national survey of school violence in Israel (Benbenishty et al., 2000). The initial dataset included 16,413 students in grades 4-11 in the official public school system supervised by the Israeli Ministry of Education. Because of the focus on middle and high schools in this study, the final number of participants included in the analyses is 10,254. Sixty-two percent of students in the present sample are in

middle school and 38% are in high school. Sixty-four percent of the participants in the sample are students in Jewish schools, (of these, 55% in Secular and 45% in Religious schools). Thirty-six percent of the sample consists of Arab students in Arabic schools. Fifty percent of the students are female.

The probability sampling method employed in this study was a two-stage stratified cluster sample. The strata were: Jewish/Arab, Religious/Secular, and Primary/Secondary/High schools. In the first stage, schools were randomly selected from the sampling frame according to their appropriate strata. In the second stage, within each of the selected schools, one class was randomly selected from each of the grade levels. Participants were all the students who attended class during the time of the survey and gave their informed consent and permission. Prior to data collection, principals of the schools in the sample received a formal request to participate in the study from the Chief Scientist of the Ministry of Education and the General Director of the Ministry of Education. The response rate was 95% and surveys were administered in the Fall of the 2000-2001 school year by professional monitors.

Measures

The questionnaire used in this study is an adapted version of the California School Climate Survey (developed by Furlong and used in California, see M. J. Furlong, 1999; Rosenblatt & Furlong, 1997). The research questionnaire had over 100 questions directed towards students pertaining to school climate, teachers' support of students, personal victimization over a range of low-level (pinching, slapping) to high level (extortion, gun threats) violent behaviors, observed risky behaviors on campus, and school policies regarding school violence. The original items were translated from English to Hebrew and Arabic. Some items were adapted to the Jewish-Israeli and Arab-Israeli culture and language. A standard back-

translation procedure was employed in order to ensure translation accuracy. Multiple translations and re-translations were made and compared.

The questionnaire took most students approximately 20-25 minutes to complete. The questionnaires, procedures, and informed consent forms/instructions were reviewed extensively through the Israeli Ministry of Education Human Subject Protection protocols and were also implemented in accordance with the ethical and human subject review guidelines at Hebrew University in Jerusalem. Confidentiality was assured to all participants and all were free to withdraw from the study at any time and for any reason.

Student Model - Outcome Variables

Student Victimization by Students (Moderate and Severe). Students were asked whether they were victims at least once during the prior month of each of the 14 victimization items (Appendix A). Each victimization item was scored dichotomously indicating presence or absence of the particular experience within the prior month. Initially, student victimization was considered a single construct. However, factor analysis revealed two factors distinguishing between moderate types of victimization and more severe forms¹. Moderate victimization (alpha = .80) included being threatened, being kicked or punched, being seized or shoved on purpose, having rocks or other objects thrown at the person, and being involved in a fist fight. Severe victimization (alpha = .82) included being involved in fights that required medical attention, being threatened under blackmail, being cut with a knife or sharp object, being threatened with a gun, being threatened, harassed, or pressured by gang members, or being given a serious beating.

Student Victimization by Staff. Students were asked whether or not they were victims of violence perpetrated by teachers or staff members at their school. This variable consisted of four

¹ Upon conducting the full Structural Equations Model, this two factor distinction was confirmed as the analyses of the model with the two separate factors yielded significantly stronger fit measures than with the single victimization model.

survey items with a Cronbach reliability alpha coefficient of .76. Examples of student victimization by staff include being seized or shoved on purpose, receiving a kick or punch from a staff member, or being pinched, slapped, or cursed at by the staff member.

Student Model - School Climate Variables

Student Participation in Decision-Making. Students were asked to indicate the extent to which there are opportunities for participating in important decision-making and rule-making in their schools. Responses were scored according to a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). This construct consisted of 3 items with a Cronbach reliability alpha coefficient of .74. Examples of survey items for the Student Participation factor include, “In this school, students participate in making important decisions and in making the rules” and “the staff in my school makes efforts to involve students in important decisions.”

Teacher Support. Teacher Support measures consisted of 7 items with a Cronbach’s reliability coefficient of .89. Examples of items from the Teacher Support construct include “My teachers respect me,” “One can trust and rely on most of the teachers at this school,” and “Teachers in this school care for the students.” For the full set of indicators and factors, please refer to Appendix A.

Analytic Method

The primary method of analysis for the present study is Structural Equations Modeling with maximum likelihood estimation (Bentler, 1995; Klem, 2000). As an analytic technique, SEM is especially well-suited for data in the social and behavioral sciences because it allows one

to test a theoretical model by describing relationships among several endogenous factors simultaneously and it adjusts for the relative unreliability of latent factors (Klem, 2000). Several key steps are necessary to follow prior to conducting a full structural equations model analysis. It is important first to verify a sound measurement model with satisfactory fit measures. Prior to running the measurement models for both student and teacher datasets, Confirmatory Factor Analyses (CFAs) were conducted for each latent variable to ensure adequate factor loadings ($\geq .5$) for each factor indicator as well as strong fit measures for the overall factor. Appendix A lists the survey items that create each latent factor, with corresponding fit indices for each separate Confirmatory Factor Analysis.

There are various indicators of the goodness of fit for a specified model. The Chi-square coefficient is used to assess the size of the discrepancies between the relationships in the original data matrix from those implied by the model. Ideally, this Chi-square measure would be low, to reveal non-significant discrepancies, so that one could conclude that the data “fit” the theoretical model. However, because of the sensitivity of the chi-square coefficient to sample size, it is not a preferred fit index for large samples such as those in the present study. More commonly used fit indices include the Bentler-Bonnett’s Normed Fit Index (NFI), the Non-Normed Index (NNFI), and Comparative Fit Index (CFI) (Bentler, 1990). Typically, these three fit indices are considered adequate when above .90 and good when they exceed .95. A common misfit measure (the Root Mean Square Error (RMSEA) is also reported in the SEM analyses. The RMSEA is considered acceptable when below .10 and good if it is below .06 (Hu & Bentler, 1999).

Appendix A provides NFI, NNFI, CFI, and RMSEA fit indices for each of the latent factors in the models. Following the confirmatory factor analysis of the latent factors, and an examination of the fit for the measurement model, the final model was tested using structural

equations modeling (Bentler, 1995). The first structural equations model includes the full dataset without any group comparisons. Next, comparative analyses were conducted to determine whether differences exist among junior high and high school students' perceptions of their school climate and victimization. Initially, the subsequent gender and ethnicity analyses were to be conducted on the separate junior and high school samples separately. However, because of the nearly identical outcomes among the junior high and high school structural equations models, the remainder of the gender and ethnicity analyses are conducted on the full sample of junior high and high school students.

Results

Overall Student Analyses

The results of the structural equation analysis for the overall student model revealed a good fit to the data [$\chi^2 (160, N=8404) = 3,388, p < .001$, with NFI = .95, NNFI = .94, CFI = .95, and RMSEA, = .05]. The model explained 12 percent of the moderate victimization reported by students, 11 percent of severe victimization, and 16 percent of the victimization of students perpetrated by staff. As illustrated in Figure 2, Teacher Support had a strong negative influence on all three victimization outcomes ($\beta = -.42, -.39$ and $-.54, p < .001$ for Moderate Student, Severe Student, and Student Victimization by Staff, respectively). In contrast, Participation in Decision-Making had weak but positive influences on the three victimization outcomes ($\beta = .10, .08, .18, p < .01$ for Moderate Student, Severe Student, and Student Victimization by Staff, respectively).

School Level Comparison Analyses

The results of the structural equation analysis for the comparison model examining school level differences between Junior High and High School students' reports of school climate and victimization revealed a good fit to the data [χ^2 (343, n junior high = 5194, n high school = 3210) = 3,873, $p < .001$, with NFI = .94, NNFI = .94, CFI = .95, and RMSEA, = .04]. The results suggest that the same theoretical model fits the data from both school levels quite well. In this initial comparison, the structural equation analyses were conducted with constraints on all factor loadings, paths, and covariances to be equal. After testing whether the fit could be improved by releasing equality constraints on each paths, there were no significant changes in the chi-square index, so each constraint remained in the final model. The final school level comparison SEM model is shown in Figure 3.

The beta coefficients for both junior high and high school models are remarkably similar. All paths with the exception of one revealed nearly identical beta coefficients. Because of the similarity in models for the junior high and high school students, the remainder of the gender and ethnicity comparisons were conducted on the full junior high and high school dataset. The percent of variance explained across the school level models was also similar. The model explained 11% and 14% of the variance in Moderate Student Victimization (for junior high and high school students, respectively), 11% of the variance in Severe Student Victimization, and 17% and 16% of the variance in Student Victimization by Staff for junior high and high school students, respectively. As illustrated in Figure 3, Teacher Support was negatively associated with all three victimization outcomes at both school levels ($\beta = -.38, -.38$ and $-.54, p < .001$ for moderate, severe, and victimization by staff for junior high school students, and $\beta = -.42, -.38$ and $-.53, p < .001$ for high school students.)

In contrast, Participation in Decision-Making was either unrelated or positively related with the victimization outcomes. The SEM analysis revealed a non-significant relation between Student Participation in Decision-Making with both Moderate and Severe Student Victimization and a strong, positive relation to Student Victimization by Teachers/Staff ($\beta = -.18, p < .001$ for both school levels).

Gender Comparison Analysis

Similar to the procedure for the school level analysis, the gender comparison analyses were conducted with SEM by constraining all the factor loadings, paths, and covariances to be equal. This comparison model examining gender differences between male and female students' reports of school climate and victimization revealed a good fit to the data [χ^2 (343, n males = 4,216, n females = 4,188) = 4,227, $p < .001$, with NFI = .94, NNFI = .94, CFI = .95, and RMSEA, = .04]. We tested whether the fit could be improved to a statistically significant degree by releasing equality constraints on the paths. When each beta constraint was freed (separately), there was a significant decrease in the chi-square, so the final gender comparison model is run with each beta constraint released. When the six beta constraints were released together, the analysis produced a better fit to the model [χ^2 (337, n males = 4,216, n females = 4,188) = 4,005, $p < .001$, with NFI = .94, NNFI = .94, CFI = .95, and RMSEA, = .04]. The gender-comparison model is presented in Figure 4.

Where gender differences exist in the model, they are pronounced. For example, there was a significant difference between the genders in the proportion of the variance explained in Severe Student Victimization and Student Victimization by Staff ($R^2 = .05$ and $.09$ for girls and $.12$ and $.19$ for boys). Perhaps the most striking gender differences are found with the Student Victimization by Staff outcome. Whereas the beta for the path linking Student Participation in

Decision Making to Student Victimization by Staff, for boys is .26 ($p < .001$), the beta for the girls is .10 and is not significant. The strong negative relation between Perceived Teacher Support and Student Victimization by Staff is also more pronounced for boys ($\beta = -.61$, $p < .001$) than it is for girls ($\beta = -.38$, $p < .001$).

Despite these differences, there also exist important similarities to note among models for boys and girls. An example of model similarity is in the explained variance for Moderate Student Victimization at 10% for boys and 9% for girls. Betas linking the climate variables to Moderate Student Victimization are also similar ($\beta = .14$ and $.10$ for Participation in Decision-Making and $-.41$, and $-.37$ for Teacher Support, for male and female students, respectively).

Cultural Group Analyses

As with the analysis for the school level and gender subgroups, structural modeling comparisons were conducted with Jewish and Arab student subgroups with equality constraints on all factor loadings, paths, and covariances. Overall, the analysis produced a good fit to the data [χ^2 (343, n Jewish students = 5400, n Arab students = 3004) = 4,647, $p < .001$, with NFI = .94, NNFI = .93, CFI = .94, and RMSEA, = .04]. However, after releasing path constraints one at a time, it was determined that the release of all path constraints would yield a significantly better fit to the model. Thus, when the six constraints were released together, the analysis produced a better fit to the model [χ^2 (337, n Jewish students = 5,400, n Arab students = 3,004) = 4,552, $p < .001$, with NFI = .94, NNFI = .93, CFI = .94, and RMSEA, = .04]. Figure 5 illustrates the final results for the cultural group comparison analysis.

Overall, there were cultural differences in the proportion of variance explained for Moderate Victimization, Severe Victimization, and Victimization by Staff (R^2 for the three victimization measures are .10, .11, and .17 for the Jewish students and .16, .15, and .31 for the

Arab students). Whereas in the overall student model, there was a slight positive association with student Participation in Decision Making and the victimization measures, this association was only significant for both ethnicities when it was predicting Student Victimization *by Staff*. Participation in Decision-Making was unrelated with Moderate and Severe Student victimization for Jewish students and positively and strongly associated with all types of victimization for Arab students. This cultural difference is perhaps the most pronounced of all the group comparisons analyzed thus far in the study. It is interesting to note that students' perceptions of Teacher Support had a stronger negative association with the victimization measures for the Arab students than for the Jewish students ($\beta = -.61, -.60, \text{ and } -.86$ for Arab students and $-.39, -.39, \text{ and } -.59$ for Jewish students).

Discussion

The strongest and most consistent findings that emerged from this study were the lowered rates of victimization reported when students perceived higher levels of teacher support. Contrary to what we expected, however, "participation" was *positively* related to victimization outcomes, with differences according to gender and cultural groups. The distinctively different patterns that emerged suggest a need to look more carefully at the social processes that might influence the dynamics between participation and victimization. There may be important historical or cultural factors that account for the variations in the pattern of connection between climate and violence.

The most pronounced finding in this study was that when students reported feeling supported by their teachers, they were less likely to report experiencing victimization by other students or teachers/staff. These results are in accord with earlier studies of teacher support (Baker, 1998b; Croninger & Lee, 2001; Voelkl, 1995; Walker, 2003; Wehlage, Rutter, Smith,

Lesko, & Fernandez, 1989) in providing evidence for a buffering effect of positive student-teacher relationships in reducing rates of student victimization. A word of caution should be offered, however, in the interpretation of this finding into practice. According to Carol Midgley (Personal communication, 2000), many middle school reform efforts to emphasize “interpersonal warmth” in schools were misinterpreted by teachers and administrators to come at the expense of ensuring academic rigor. As students found their teachers to be more friendly, they also found a decrease in standards of academic excellence. It is a difficult yet important balance to recognize that positive relationships between teachers and students need not and should not come at the expense of quality teaching. Indeed, one can imagine that environments that emphasize high expectations of learning and success *within* a climate of care and mutual respect would be beneficial for students’ learning *and* behavior.

The gender comparison results revealed interesting and important differences as well. The model accounted for much greater variance explained in two of the victimization outcome measures (Severe and Staff) for boys than for girls. Another noteworthy finding, is that Student Participation in Decision Making was *unrelated* to all the victimization measures for girls, but significantly and positively related to all the victimization measures for boys. This finding suggests differential gender dynamics in the way that students respond to opportunities for decision-making as well as victimization that may occur as a result. Perhaps one reason for the strength of this relation is that boys are more likely to participate in decision making in their schools when given the opportunity and are also more likely to be victimized (by both students and staff). An explanation for this finding may be that environments where students feel greater opportunity for decision-making also allow male students greater freedoms to engage in behaviors that would result in violence. This may also explain the strong link between student

participation and victimization by teachers/staff. It is possible that with the greater freedoms afforded to the students, teachers/staff may feel more pressure to assert their authority and thus may engage in higher rates of violence towards their students. Another possibility may be that student participation happens in a climate of lower monitoring and social control which may allow both students *and* teachers more room for aggression.

The cultural comparison of the structural equation models yielded the most pronounced differences in the relation between the climate and victimization variables. The model revealed a stronger explanatory power for the Arab students than for Jewish students. Whereas Participation in Decision-Making was unrelated to Moderate or Severe Victimization for Jewish students, it was positively and strongly related to the victimization measures for Arab students. Given that the Jewish and Arab school systems are essentially segregated, this finding suggests that there may be cultural dynamics at play with respect to the disciplinary climate of the schools that may account for the differential results. Perhaps students in more patriarchal school environments are more sensitive to changes in the social dynamics of authority/leadership. Another possible explanation may be that greater student participation in a context where participation by students is traditionally rare may lead to victimization and violence of students by their peers as well as by teachers/staff.

In addition to bringing attention to the cultural piece that is so vital to consider in the school context, the findings highlight the notion that a “one-size-fits-all” approach to violence prevention is not a recommended strategy. Although participation in decision-making may have been found to have positive outcomes in the qualitative research conducted by Hyman and Snook in 5th grade classrooms, when examined in the present large scale nationally representative sample of middle and high school students in Israel, it had no effect for Jewish students (for

moderate and severe victimization by peers) and was related to *increased* rates of victimization (by peers and staff) for Arab students. The findings highlight complex issues that are necessary to consider that lie at the core of the intersection between research and practice in school violence prevention.

It may be also important to consider the effect of *proximity* in the school policies. Research by Hyman and Snook (2000) examined democracy within classroom environments. The present study examined the questions at the school level, whereas previous research on the democracy element examined classroom level data. Perhaps the school-level policies to encourage school involvement are too distal to have a positive effect on student behavior or may need to be implemented with concurrent democratic measures at the classroom level in order to result in measurable improvement in student conduct.

Future research that considers longitudinal waves of data may provide more conclusive evidence with respect to the dynamics of climate change and victimization. It may also be important to point out that while the measure of participation in the current research may capture to some degree the sense of “democracy” in a school, it may not adequately serve as a reverse-gauge of the degree of authoritarianism. Research efforts may be strengthened by the use of specific measures to tap the extent to which students sense strict authoritarianism in schools.

The similarity of findings in the junior high and high school comparison suggests that the relation between the climate and victimization variables is much the same in the secondary school settings. While there may be variation in base rates of victimization across school levels, the *patterns* of relations between the climate and victimization variables across junior high and high school settings are very similar. Given that these patterns may develop at earlier stages of

schooling, future research might focus on how these relations between climate and victimization relate in early elementary settings.

While intuitively, it makes sense that within supportive, caring climates, students would be less likely to act out and to be victimized, the *process* by which this dynamic occurs is not entirely clear. Do students emulate the caring/respect demonstrated by their teachers? Do they refrain from fighting because these caring teachers effectively monitor the safety of all students in their vicinity? Do students refrain from violence in the midst of teacher support because violence might result in disapproval of a well-liked teacher? Are there context cues in more “caring” environments that reduce the tendency for students to react negatively to aversive situations that might arise? Does perceived teacher support also encompass the active guidance in teaching students how to resolve their conflicts without violence? An examination of questions such as these may provide us with greater insights into the process of how teacher support might curb student victimization.

Future research might also look more carefully at contexts that facilitate the development of prosocial behaviors in schools. While many acknowledge that schools hold a tremendous amount of influence (and responsibility) to create effective socialization environments, there are few recipes for how to create and maintain this type of environment. In order to better understand the factors that fuel student aggression, we might ask some theoretically inverse questions such as “In what ways are students motivated to *refrain* from violence?” As we have examined in the preceding empirical studies, school climate issues are important to consider. Still, if we are to understand the specifics of how social processes unfold within a school setting, there is much more work ahead for research in the area linking climate with violence.

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Figure 2. Overall Structural Equations Model of School Climate and Student Victimization (Full Student Dataset)
 $\chi^2(160, N=8404) = 3,388, (p < .001), NFI=.95, NNFI=.94, CFI=.95, RMSEA=.05.$
 Significant paths are indicated with asterisks, * = $p < .01, ** = p < .001.$

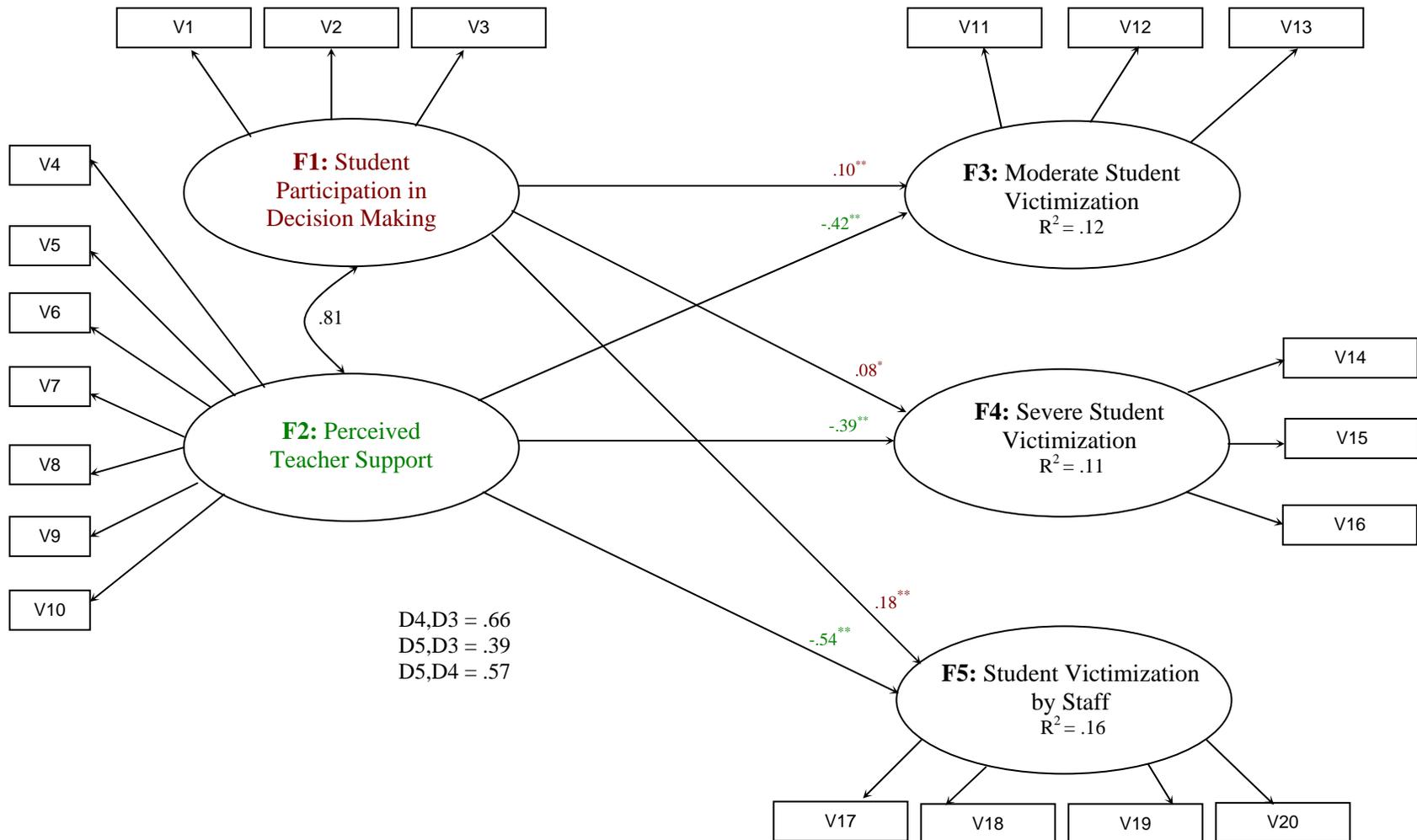


Figure 3. School Level Comparison Structural Equation Modeling of Junior High and High School Students' Reports of School Climate and Student Victimization $\chi^2(343, N=8404) = 3,873, (p < .001), NFI=.94, NNFI=.94, CFI=.95, RMSEA=.04$. Junior High Model is indicated in regular type, High School model is in bold. Significant paths are indicated with asterisks, * = $p < .01$, ** = $p < .001$.

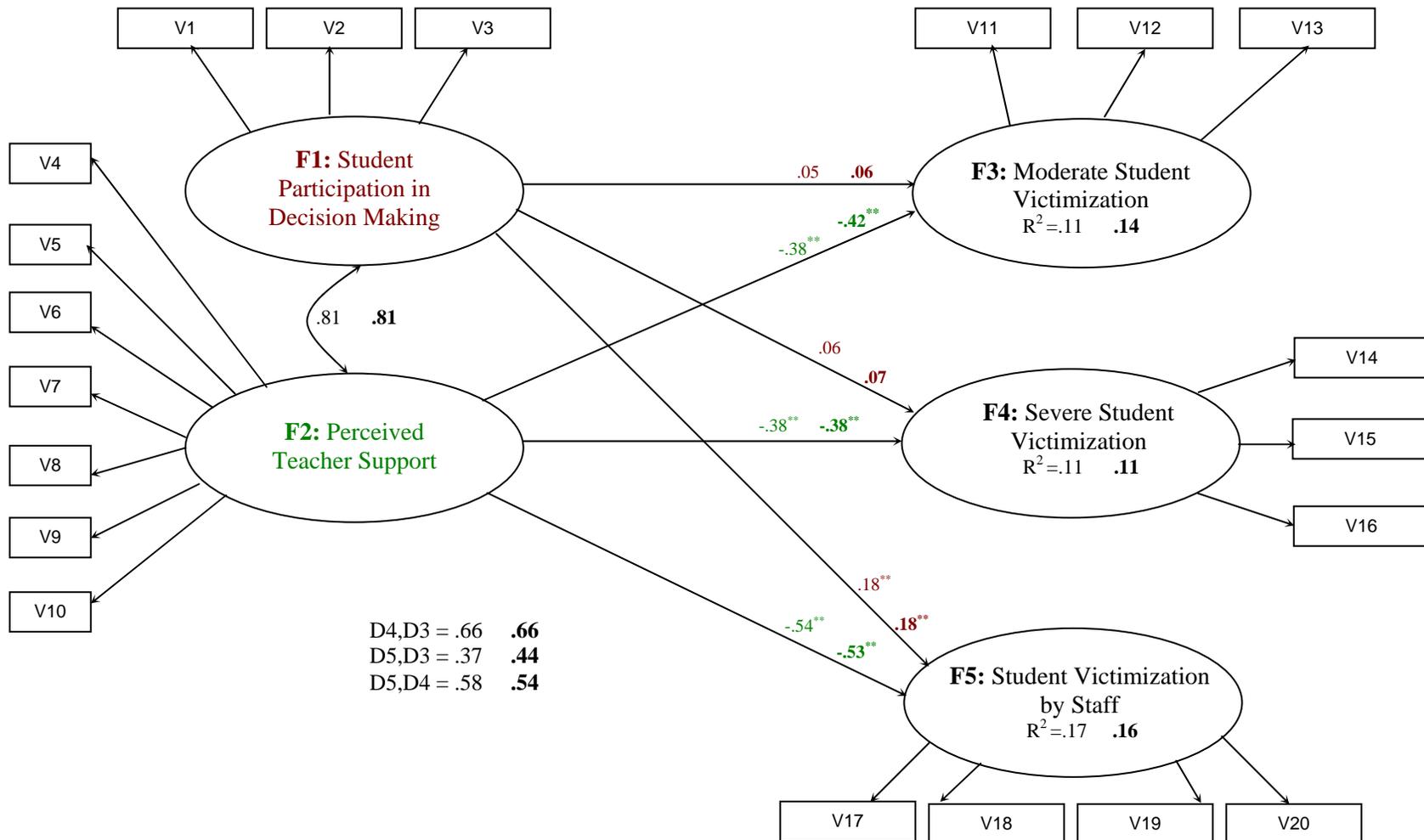


Figure 4. Gender Comparison Structural Equation Modeling of Male and Female Students' Reports of School Climate and Student Victimization
 $\chi^2(3337, N=8404) = 4,005, (p < .001)$, NFI=.94, NNFI=.94, CFI=.94, RMSEA=.04.
 Male student model is indicated in regular type, Female student model is in bold.
 Significant paths are indicated with asterisks, * = $p < .01$, ** = $p < .001$.

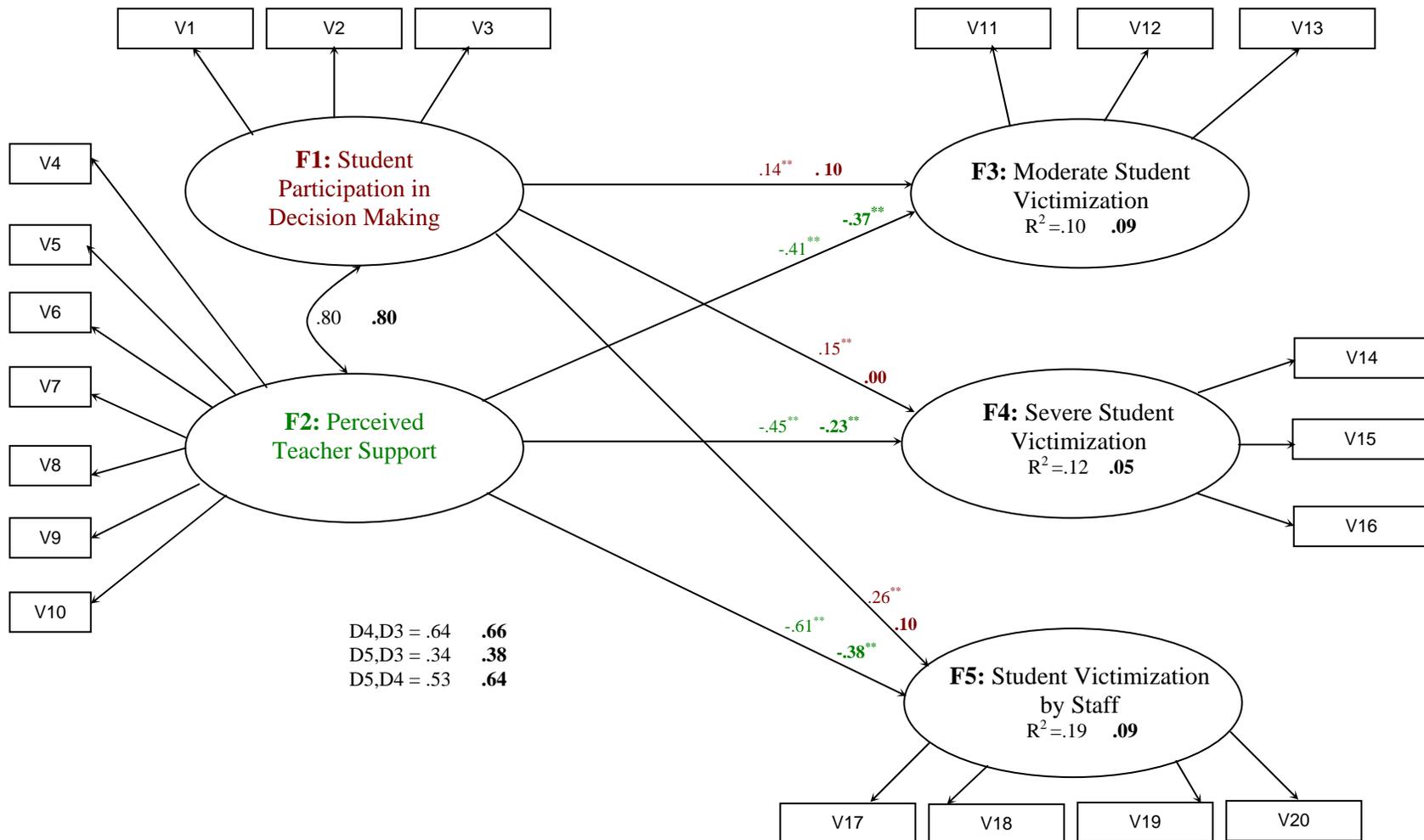
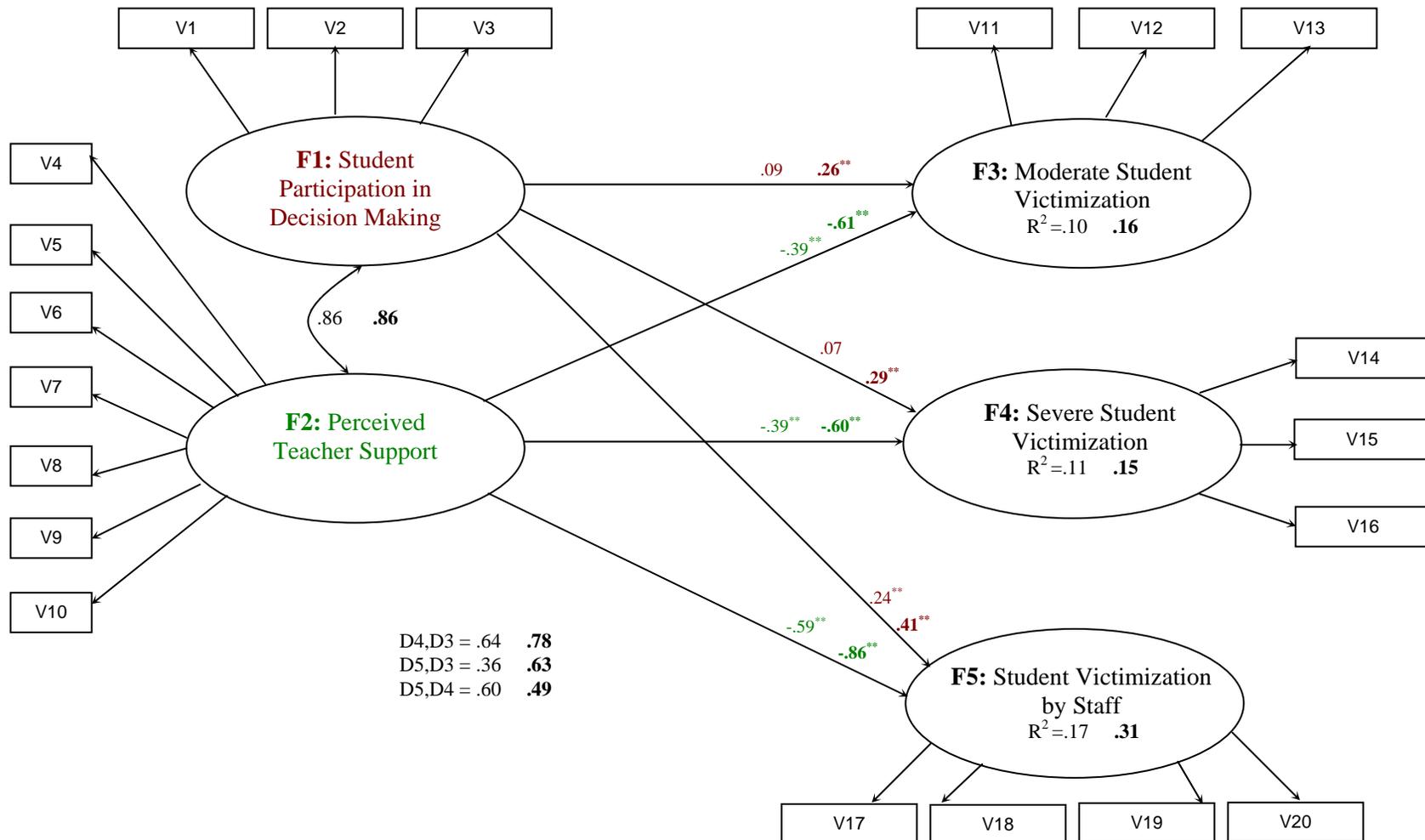


Figure 5. Cultural Comparison Structural Equation Modeling of Jewish and Arab Students' Reports of School Climate and Student Victimization
 $\chi^2 (337, N=8404) = 4552, (p < .001), NFI=.94, NNFI=.93, CFI=.94, RMSEA=.04.$
 Jewish Student Model is indicated in regular type, Arab student model is in bold.
 Significant paths are indicated with asterisks, * = $p < .01$, ** = $p < .001$.



Appendix

Survey items, factor loadings, reliability coefficients, and CFA fit indices for latent factors in structural equations model.

Factor Loadings	Latent Factor name and relevant indicators
	Student Participation in Decision-Making ($\alpha = .74$)
	<i>Please select one of the following four options for each question. 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree</i>
.68	In this school, students participate in making important decisions and in making the rules.
.65	In my school, students play a significant role in taking care of problems of violence.
.80	The staff in my school makes efforts to involve students in important decisions.
	Fit indices: NFI = .96, NNFI = .95, CFI = .97, RMSEA = .07
	Teacher Support ($\alpha = .89$)
.78	My teachers are fair.
.68	Teachers do a good job of looking out for troublemakers.
.72	When I am complaining that someone hurt me, teachers help me.
.75	My teachers respect me.
.75	One can trust most of the teachers at this school.
.70	I have close, helpful relationships with my teachers.
.75	Teachers at this school care for the students.
	Fit indices: NFI = .97, NNFI = .96, CFI = .97, RMSEA = .08

Moderate Student Victimization (by other Students) ($\alpha = .80$)*At school, during the last month:**(0 = Never, 1 = Once or twice, 2 = Three times or more)*

- .60 A student used a rock or another instrument in order to hurt you.
- .74 A student threatened to harm or hit you.
- .61 You were involved in a fist fight.
- .76 You were kicked or punched by a student that wanted to hurt you.
- .63 A student seized and shoved you on purpose.

Fit indices: NFI = .99, NNFI = .99, CFI = .99, RMSEA = .03

Severe Student Victimization (by other Students) ($\alpha = .82$)

At school, during the last month:

(0 = Never, 1 = Once or twice, 2 = Three times or more)

- .66 A student cut you with a knife or sharp instrument on purpose.
- .62 You were blackmailed under threats by another student (for money, valuables, or food).
- .57 A student threatened you with a gun and you saw the gun.
- .69 Gang members at school threatened, harassed, and pressured you.
- .67 A student gave you a serious beating.
- .60 You were involved in a fight, hurt, and required medical attention.
- .63 Students threatened you on your way to or from school.

Fit indices: NFI = .99, NNFI = .98, CFI = .99, RMSEA = .03

Student Victimization by Teachers/Staff $\alpha = .76$

At school, during the last month:

(0 = Never, 1 = Once or twice, 2 = Three times or more)

- .69 Someone from the school staff seized and shoved you on purpose.
- .69 You received a kick or punch from a staff member who wanted to hurt you.
- .71 Someone from the school staff pinched or slapped you.
- .59 Someone from the school staff cursed at you.

Fit indices: NFI = .99, NNFI = .99, CFI = .99, RMSEA = .05
