

PREDICTIVE ABILITIES OF PEER VICTIMIZATION, EXTERNALIZING
BEHAVIORS, AND INTERNALIZING SYMPTOMS:
PROBLEM SOLVING AS A MODERATOR

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ABSTRACT

Research has indicated that externalizing behaviors (i.e. hyperactivity, aggression, conduct problems) and internalizing symptoms (i.e. anxiety, depression, somatization) are predictive of peer victimization, with evidence for these reverse predictive pathways existing, as well. The current study explored these bidirectional relationships across two time points, with an emphasis on problem solving strategies (i.e. verbal assertion, help seeking) as moderators. To date, no study has examined the potential of verbal assertion and help seeking to minimize future negative outcomes. Eight cross-lagged autoregressive models were estimated, with parent reported and teacher reported behaviors examined separately. Findings indicated that verbal assertion protected children high on internalizing behavior evident in the home setting from future peer victimization, and also protected victimized children from later development of parent-rated internalizing behavior. Further, results suggested that verbal assertion exacerbated victimized children's development of parent reported externalizing behavior. Clinical implications are discussed.

LIST OF ABBREVIATIONS AND SYMBOLS

| | |
|----------|---|
| CI | Confidence Interval |
| CFI | Comparative Fit Index: Relative fit index |
| RMSEA | Root Mean Square Error of Approximation: Absolute fit index |
| TLI | Tucker-Lewis Index: Relative fit index |
| χ^2 | Chi-square: statistical fit index |
| β | Beta |
| σ | Standard error |
| p | Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value |
| r | Pearson product-moment correlation |
| n | Sample size |
| < | Less than |
| > | Greater than |
| = | Equal to |

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CONTENTS

| | |
|---|-----|
| ABSTRACT | ii |
| LIST OF ABBREVIATIONS AND SYMBOLS | iii |
| ACKNOWLEDGMENTS | iv |
| LIST OF TABLES | vi |
| LIST OF FIGURES | vii |
| INTRODUCTION | 1 |
| METHODOLOGY | 14 |
| DATA ANALYSIS PLAN | 18 |
| RESULTS | 20 |
| DISCUSSION | 31 |
| REFERENCES | 39 |
| APPENDIX..... | 45 |

LIST OF TABLES

| | |
|-------------------------------------|----|
| 1 Study Variable Descriptives | 21 |
| 2 Study Variable Correlations..... | 23 |

LIST OF FIGURES

| | |
|---|----|
| 1 Peer Victimization x Verbal Assertion Predicting Parent Reported Externalizing Behavior... | 45 |
| 2 Peer Victimization x Help Seeking Predicting Parent Reported Externalizing Behavior..... | 46 |
| 3 Peer Victimization x Verbal Assertion Predicting Parent Reported Internalizing Behavior.... | 47 |
| 4 Peer Victimization x Help Seeking Predicting Parent Reported Internalizing Behavior..... | 48 |
| 5 Parent Reported Internalizing Behavior x Verbal Assertion Predicting Peer Victimization.... | 49 |
| 6 Parent Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization..... | 50 |
| 7 Teacher Reported Externalizing Behavior x Help Seeking Predicting Peer Victimization..... | 51 |
| 8 Teacher Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization..... | 52 |
| 9 Parent reported externalizing model..... | 53 |
| 10 Parent reported internalizing model..... | 54 |
| 11 Teacher reported externalizing model..... | 55 |
| 12 Teacher reported internalizing model..... | 56 |
| 13 Parent reported externalizing with moderation model..... | 57 |
| 14 Parent reported internalizing with moderation model..... | 58 |
| 15 Teacher reported externalizing with moderation model..... | 59 |
| 16 Teacher reported internalizing with moderation model..... | 60 |

INTRODUCTION

Researchers often point to Olweus' 1978 contributions to the literature (Olweus, 1978) as the important starting point for the study of child and adolescent aggression and victimization (Hawker & Boulton, 2000). Over the past two decades, researchers and clinicians alike have become increasingly concerned with peer victimization (Goodman, Stormshak, & Dishion, 2001; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1999), both as it relates to externalizing and internalizing behaviors and how future adjustment is affected by these factors (Craig, 1998; DeRosier & Marcus, 2005; Orpinas & Horne, 2006; Visconti & Troop-Gordon, 2010). Research has shown strong support for the relationships between externalizing behaviors, internalizing symptoms, and peer victimization. Emphasis has been placed on the interplay between the three, as they tend to exacerbate one another and contribute together to future maladjustment (Felix & McMahon, 2006; Kochenderfer-Ladd, 2003). Most recently, the need for a deeper and more solidified understanding of these behaviors has culminated with the highly publicized suicides of victimized youth (Friedman, 2010; Goldman, 2010; James, 2011), sparking constant attention and discussion from news outlets with a national platform (Rettner, 2010; Wiseman, 2011), calling for immediate action.

Relationship between externalizing behavior and peer victimization

The co-occurrence of externalizing problems and peer victimization is well documented. Previous research has identified victimized children as displaying aggression, delinquency, and defiance (Felix & McMahon, 2006), with specific behaviors including fighting and lying (Kochenderfer-Ladd, 2003). This simultaneous presentation of aggression and victimization is so

well established that researchers have begun to separate victimized children into two groups: those who are only victims and those termed aggressive victims. Studies show these aggressive victims are at a greater risk for maladjustment than their aggressor-only and victim-only counterparts, receiving higher social rejection scores, reporting higher levels of depression and anxiety, and expressing lower levels of self-confidence (Kochenderfer-Ladd, 2003). D. G. Perry, Kusel, and L. C. Perry (1988) suggest this could be attributed to the additive nature of the individual contributions that externalizing and internalizing behaviors and peer victimization make to the development of adjustment problems. While the correlates between victimization and externalizing behavior are evident, researchers continue to explore these factors as both predictors and outcomes in relation to one another (Hodges & Perry, 1999).

Research findings support the notion that externalizing behavior can be predictive of later peer victimization experiences. One possible explanation for this pathway is that children who display externalizing behaviors, including aggression, argumentativeness, and disruptiveness, may annoy peers to the point of provoking harassment (Reijntjes et al., 2011). Since most students in a given classroom value nonaggressive attitudes and behaviors, those who act in a manner inconsistent with these classroom expectations likely place themselves at a heightened risk for peer victimization (Pellegrini, Bartini, & Brooks, 1999). A second possibility is that aggressors find themselves victimized by their otherwise nonaggressive peers, with the end goal of those peers being to reduce the aggressors' disruptive behavior and draw them closer to group behavioral norms (Ladd, 2003).

Several longitudinal studies have identified a predictive link between externalizing behavior and peer victimization. Olson (1992) found that children who initiated aggressive peer interactions upon entering preschool became the eventual targets of unprovoked aggression.

These results were replicated in a later study of kindergarteners, finding that initially aggressive children were more likely to experience victimization by the time they entered first grade than their nonaggressive peers (Kochenderfer-Ladd, 2003). Schwartz et al. (1999) examined two cohorts over a four-year period, beginning in kindergarten and first grade and finishing in third and fourth grade. Findings revealed that externalizing behaviors directly predicted subsequent peer victimization, and these results were upheld even when other behavioral concerns, including attention problems, impulsivity, and immaturity, were controlled for. Despite these indications that externalizing behaviors are predictive of children being targeted for peer victimization, other studies have failed to establish this link (Dhami et al., 2005; Hodges & Perry, 1999), signifying a need for further examination.

The literature also supports a predictive pathway from peer victimization to later development of externalizing behavior. One explanation for this predictive pathway, offered by Dodge, Bates, & Pettit (1990), suggests that victimized children may develop hostile social-cognitive biases as a result of constant exposure to peer harassment, thereby driving their own aggressive behavior. Alternatively, as discussed by Schwartz, Proctor, & Chien (2001), victimized children may struggle to regulate their emotions in challenging social situations, resulting in the emergence of disruptive and argumentative behaviors. A third possibility is that victimized children may simply be defending themselves (Reijntjes et al., 2011) or putting forth counterattacks (Hodges & Perry, 1999), leading to the development of aggressive habits.

A number of longitudinal studies have established a predictive link between peer victimization and externalizing behavior. Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates (1998) evaluated two cohorts over a two-year period, one from third to fifth grade and the other from fourth to sixth grade. Results indicated that children subjected to peer harassment were at a

heightened risk for later development of externalizing problems. Even after controlling for other behavioral and peer-related concerns, including aggression and peer rejection, evidence for victimization predicting the emergence of externalizing behavior remained. Similar results were found in a study conducted by Rusby, Forrester, Biglan, & Metzler (2005), in which three cohorts of fifth, sixth, and seventh graders were recruited and followed into high school. Findings suggested that children victimized in middle school were more likely than their nonvictimized counterparts to subsequently display externalizing behavior in high school. Although support exists for peer victimization predicting externalizing behavior, continued exploration is needed, as other studies have failed to identify this link (Ladd & Burgess, 2001).

A meta-analysis conducted by Reijntjes et al., (2011) examined the bidirectional predictive pathways between externalizing behavior and peer victimization, only including studies that controlled for the initial value of the outcome variable (i.e. peer victimization or externalizing behavior). These criteria resulted in the collection of fourteen studies, eight of which examined externalizing behavior predicting peer victimization, and ten of which explored peer victimization predicting externalizing behavior. Results showed a predictive link for both pathways, with externalizing behavior predicting increased peer victimization and peer victimization predicting increased externalizing behavior. These findings indicate that both externalizing behavior and peer victimization can serve as antecedents and consequences of one another. This relationship appears to be cyclical in nature, with victimized children acting out aggressively, and thus attracting further peer victimization. Despite the usefulness of this meta-analysis, evidence for this bidirectional relationship is quite modest. There remains a need for further exploration of variables that could potentially moderate these predictive pathways.

Relationship between internalizing symptoms and peer victimization

Researchers have established an equally important link between internalizing symptoms and peer victimization, with victimized children exhibiting qualities such as depression, anxiety, loneliness, low self-esteem, and withdrawal (Felix & McMahon, 2006; Hodges & Perry, 1999; Kochenderfer-Ladd & Skinner, 2002; Kochenderfer-Ladd, 2003). While their simultaneous occurrence is well established in the literature, researchers continue to examine the bidirectional predictive pathways between these two factors (Hodges & Perry, 1999; Reijntjes, Kamphuis, Prinzie, & Telch, 2010).

Research has provided evidence for a pathway in which internalizing symptoms predict peer victimization. Hodges & Perry (1999) suggest that children with internalizing symptoms often display behaviors such as crying, fearfulness, and withdrawal, thereby inviting harassment from their peers. Reijntjes et al., (2010) add that these children are likely ineffective at asserting and defending themselves, reinforcing the peer harassment they endure.

Several longitudinal studies have identified a predictive link between internalizing behavior and peer victimization. Snyder et al. (2003), in a study of Kindergarteners followed up at the conclusion of first grade, found that children who exhibited sadness and withdrawal were increasingly targets for peer harassment. In another study, researchers found that fourth and fifth graders who displayed anxiety, sadness, and social withdrawal were at a heightened risk for later experience of peer victimization (Hodges & Perry, 1999). Similar results were found in a more recent study, in which nine eleven-year-olds exhibiting depressed and anxious symptoms had an increased likelihood of becoming victimized by peers later in the school year (Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006). Despite this evidence supporting a predictive pathway from internalizing symptoms to peer victimization, many other studies have failed to

find this link (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Hanish et al., 2004), indicating a need for further exploration.

Research has also yielded findings that peer victimization may predict children's later experience of internalizing symptoms. A possible explanation for this predictive pathway is that the humiliation and pain associated with peer victimization could reasonably lead to depression, negative self-thoughts, and avoidance of social interactions altogether (Reijntjes et al., 2010).

A number of longitudinal studies have provided evidence for a predictive link between peer victimization and internalizing behavior. In one study, Goodman et al. (2001) evaluated first and fifth graders, finding that victimized children in both groups had an increased likelihood of developing internalizing symptoms four years later. Hanish & Guerra (2002) found that first, second, and fourth graders who were victimized by peers were more likely than their nonvictimized counterparts to display depressive and anxious symptoms two years later. Despite indications that peer victimization may predict later development of internalizing symptoms, further examination is needed, as other studies have failed to find evidence supporting this predictive pathway (Khatri, Kupersmidt, & Patterson, 2000; Schwartz et al., 1999).

Support for a bidirectional predictive relationship between internalizing behavior and peer victimization is evident in a meta-analysis conducted by Reijntjes et al., (2010). Studies that presented data on internalizing symptoms and peer victimization while controlling for the initial value of the outcome variables (i.e. peer victimization or internalizing symptoms) were included. These criteria yielded eighteen studies, eleven of which evaluated internalizing symptoms predicting peer victimization and fifteen of which explored peer victimization predicting internalizing symptoms. Results indicated a predictive link for both pathways, with internalizing behavior predicting an increase in peer victimization and peer victimization predicting an

increase in internalizing behavior. These findings suggest that both internalizing behavior and peer victimization can act as precursors and results of one another. This relationship is likely a cyclical process in which victimized children begin to display internalizing symptoms, which only serve to invite further peer victimization (Biggs et al., 2010). Despite the value of this meta-analysis, evidence for this bidirectional relationship is quite modest, indicating a need to explore potential moderators of these predictive pathways.

Problem solving skills as a moderator

While there is evidence for bidirectional predictive relationships between externalizing and internalizing behavior and peer victimization, not all children who experience any one of these then go on to experience further negative outcomes. For example, Hoover, Oliver, and Hazler (1992) found that while more than seventy-five percent of middle and high school students reported being victimized at some point during their school years, only fifteen percent reported feeling severely affected, either socially or emotionally. Some children are simply better able than others to respond to stressors and minimize their negative impact (Terranova, 2009). To examine these different responses, researchers have studied a number of moderators, including gender (Kochenderfer-Ladd & Skinner, 2002), friendship (Hodges, Boivin, Vitaro, & Bukowski, 1999), and peer rejection (Schwartz et al., 1999), in an effort to understand why some children struggle with future adjustment problems while others remain relatively unaffected.

Problem solving is another such moderator that has been given attention in the externalizing, internalizing, and victimization literature. The idea of problem solving as an important component of social interaction originated in the work of Shure & Spivack (1972). It was built upon in early prevention and aggression research (Allen, Chinsky, Larcen, Lochman, & Selinger, 1976; Lochman & Lampron, 1986) and was amplified in Dodge's (1993) social

information processing model (SIP). The SIP model outlines the mental processes and judgments that are made during the representation of social stimuli (Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999). Specifically, the steps outlined include the encoding of cues, developing a mental representation of those cues, examining the associated emotions and goals, generating potential behavioral responses, evaluating all response options, and acting out the chosen response. This fourth step of generating potential behavioral responses is otherwise known as problem-solving (Dodge et al., 2002). Children who lack problem solving skills may fail to generate a sufficient number of possible behavioral responses, resulting in limited options for handling social dilemmas in their repertoire. Alternatively, the number of behavioral responses they generate may be sufficient, but the responses that are readily available to them are problematic (Rabiner, Lenhart, & Lochman, 1999). Deviations from competent problem solving in social situations tend to indicate adjustment problems, including aggression, depression, and difficulty developing and sustaining positive peer relationships (Quiggle, Garber, Panak, & Dodge, 1992).

Verbal Assertion

Verbal assertion is largely considered to be a competent problem solving strategy in the literature (Dunn, Lochman, & Colder, 1997; Lochman & Dodge, 1994). With regard to externalizing behavior, studies have found that not only do aggressive children value more aggressive responses and less assertive responses than their nonaggressive counterparts, but they are also more likely to generate these aggressive responses and less likely to generate the assertive responses (Quiggle et al., 1992). Dunn, Lochman, & Colder (1997) evaluated a sample of boys diagnosed with either conduct disorder (CD) or oppositional defiant disorder (ODD), with the former group being characterized as more aggressive and antisocial than the latter.

Results showed that boys with ODD generated more verbally assertive solutions than their peers with CD, indicating the minimizing effect verbal assertion could have on children's development of externalizing behaviors.

A similar effect has been found between internalizing symptoms and verbal assertion. Quiggle et al. (1992) found that depressed children generated fewer assertive solutions than their nondepressed counterparts, believed assertive responses would result in negative outcomes, and reported they would be unlikely to engage in assertive behavior. However, one study examining young adolescents found that an unwillingness to take a verbally assertive approach to problem solving significantly predicted depression five months later (Dubow, Tisak, Cuasey, Hryshko, & Reid, 1991). Herman-Stahl, Stemmler, & Petersen (1995) found similar results, as adolescents using verbal assertion reported fewer depressive symptoms than those who utilized more passive problem solving strategies. These studies suggest that verbal assertion may minimize children's experience of internalizing behavior.

A number of studies have explored the positive effects that verbal assertion may have on children who are victimized. In an examination of young offenders, Biggam & Power (1999) found that victims tended to utilize passive problem solving strategies as opposed to the verbally assertive strategies endorsed by their nonvictimized counterparts. Similar results were found by Hunter, Boyle, & Warden (2004), as victimized children used less verbal assertion than nonvictimized children, leading to poor social and emotional outcomes. These findings indicate that verbal assertion may have the potential to reduce children's experience of peer victimization.

Help Seeking

Another problem solving strategy that has shown promise in the literature is help seeking, though its positive effects are less clear than those of verbal assertion due to a combination of

limited findings and mixed results. With regard to externalizing behavior, nonaggressive children have been found to generate help seeking solutions more often than their aggressive peers (Keltikangas-Jarvinen & Pakaslahti, 1999). Similar results were found by Lochman & Dodge (1994), as moderately aggressive boys generated more help seeking solutions than their more aggressive counterparts. Despite these findings, children who display externalizing behaviors do not typically utilize help seeking as a problem solving strategy. Rather, they generally act out through expressions of anger (Vierhaus & Lohaus, 2009), consistent with their externalizing tendencies. Thus, a limited number of studies have examined the link between externalizing behavior and help seeking, leaving their relationship to one another uncertain.

Similarly unclear results have been found for the relationship between internalizing behavior and help seeking. Chan (2012) found that depressed adolescents were more likely to adopt avoidance problem solving strategies, whereas nondepressed adolescents reported utilizing social support seeking. In a study of depressed and socially anxious children (Wright, Banerjee, Hoek, Rieffe, & Novin, 2010), help seeking behavior was related to decreased levels of depression but increased levels of anxiety. Similar results were found by Vierhaus & Lohaus (2009), in which anxiety in children was related to social support seeking. These mixed findings regarding the relationship between internalizing behavior and help seeking indicate a need for further examination.

Research has indicated that help seeking could have a positive impact on victimized children. However, the usefulness of help seeking may be dependent upon factors such as level of victimization and gender. This is evidenced in a study conducted by Kochenderfer-Ladd & Skinner (2002), in which outcomes for victimized children who engaged in help seeking were examined. The findings revealed that for victimized girls, seeking social support in response to

victimization lessened their risk for social problems. However, girls victimized to a lesser degree experienced the opposite effect, with social support seeking leading to increased social problems. Further, victimized boys who sought social support not only failed to see their risk for future social problems decrease, but also experienced increased feelings of loneliness. It may be that help seeking has limited effectiveness, leading children to attempt conflict resolution without the involvement of others. In fact, Tenenbaum, Varjas, Meyers, & Parris (2011) found that victimized boys rarely accessed help seeking as a problem solving strategy, and while girls sought social support often, they reported this as an ineffective way to solve their problems.

Study Significance

While the concurrent relationships between externalizing and internalizing behavior and peer victimization are well-established in the literature, the modest evidence for their ability to predict one another points to a need for exploration of variables that could be moderating these predictive pathways. To date, only one study (Kochenderfer-Ladd & Skinner, 2002) has examined the potential moderating role of problem solving strategies on these relationships, and this was done so cross-sectionally. Therefore, the present study offers a first look at whether certain problem-solving strategies (i.e., verbal assertion and help seeking) moderate the predictive, bidirectional relationships between externalizing and internalizing behaviors and peer victimization. The emergence of verbal assertion or help seeking as a protective factor from negative outcomes would offer new opportunities for intervention.

Hypotheses

Based on the evidence outlined above, the following hypotheses are offered:

1. Parent reported externalizing behavior will be predictive of increased peer victimization, as will increased peer victimization be predictive of parent reported externalizing behavior.
2. Parent reported internalizing behavior will be predictive of increased peer victimization, as will increased peer victimization be predictive of parent reported internalizing behavior.
3. Teacher reported externalizing behavior will be predictive of increased peer victimization, as will increased peer victimization be predictive of teacher reported externalizing behavior.
4. Teacher reported internalizing behavior will be predictive of increased peer victimization, as will increased peer victimization be predictive of teacher reported internalizing behavior.

Given the findings regarding verbal assertion's relationship to externalizing and internalizing behavior and peer victimization, the following hypotheses are made:

5. Verbal assertion will moderate the predictive bidirectional relationship between parent reported externalizing behavior and peer victimization. It is expected that, in the presence of verbal assertion, parent reported externalizing behavior will not predict peer victimization, nor will peer victimization predict parent reported externalizing behavior.
6. Verbal assertion will moderate the predictive bidirectional relationship between parent reported internalizing behavior and peer victimization. It is expected that, in the presence of verbal assertion, parent reported internalizing behavior will not predict peer victimization, nor will peer victimization predict parent reported internalizing behavior.

7. Verbal assertion will moderate the predictive bidirectional relationship between teacher reported externalizing behavior and peer victimization. It is expected that, in the presence of verbal assertion, teacher reported externalizing behavior will not predict peer victimization, nor will peer victimization predict teacher reported externalizing behavior.

8. Verbal assertion will moderate the predictive bidirectional relationship between teacher reported internalizing behavior and peer victimization. It is expected that, in the presence of verbal assertion, teacher reported internalizing behavior will not predict peer victimization, nor will peer victimization predict teacher reported internalizing behavior.

Research Questions

Considering the mixed findings regarding help seeking's relationship to externalizing and internalizing behavior and peer victimization, the following research questions are proposed:

1. Will help seeking moderate the predictive bidirectional relationship between parent reported externalizing behavior and peer victimization?
2. Will help seeking moderate the predictive bidirectional relationship between parent reported internalizing behavior and peer victimization?
3. Will help seeking moderate the predictive bidirectional relationship between teacher reported externalizing behavior and peer victimization?
4. Will help seeking moderate the predictive bidirectional relationship between teacher reported internalizing behavior and peer victimization?

METHODOLOGY

Design

The present study used archival data, originally collected to examine the effectiveness of the abbreviated Coping Power Program (Lochman, Boxmeyer, Powell, Roth, Windle, 2006), and funded by the Centers for Disease Control and Prevention (CDC). The Coping Power Program is a school-based preventative intervention designed to reduce youth aggression and related negative outcomes (Lochman & Wells, 2004). Data is longitudinal, collected at four time points (fall of 5th grade, spring of 5th grade, spring of 7th grade, and spring of 8th grade) over a four-year period. The present study made use of this longitudinal data to evaluate the relationships between externalizing and internalizing behavior and peer victimization across time. The following participant and procedural information is based on material originally reported by Lochman et al. (2006).

Participants

In the original study, participant selection was based on teacher ratings of children's aggressive and disruptive behaviors. Those in the screening pool with the highest ratings were flagged for inclusion. This resulted in a sample size of 240, which was randomly divided into three groups: Coping Power Program ($N=60$), Coping Power plus Booster ($N=60$), and Untreated Comparison ($N=120$).

The present study only included analyses of the untreated comparison group ($N=120$), in order to avoid any influence on the data from the Coping Power intervention. Further, as

explained below in the preliminary analyses, only the latter two time points (spring of 7th grade and spring of 8th grade) were examined. Sixty-nine percent of the participants self-identified as African American, thirty percent as Caucasian, and one percent as other race or ethnicity. Sixty percent of the children were male and forty percent, female. Due to the sample size of only 120 participants, it was not possible to explore race and gender effects in the current study.

Procedure

Children for this study were recruited from seven city and county public schools in Tuscaloosa, Alabama. Screening was completed in April of the students' 4th grade year, when teachers were asked to rate the individuals in their classrooms on aggressive behavior using the Proactive and Reactive Behaviors Scale (Dodge & Coie, 1987). The top thirty percent most aggressive children across all classes were selected for inclusion in the study. Both informed consent from the parents and assent from the children were required for participation. Peer assigned victim ratings, as part of the sociometric data collection, were obtained in the school setting. Research assistants met children and their caretakers, either in their homes or at the research office, for the remainder of data collection.

Measures

Peer Nominations. Children were provided with a complete class roster and asked to mark as a "victim" any classmates who were teased by others. They were free to nominate as few or as many classmates as they felt applied to this category. Victimization scores were reached by tallying the number of "victim" nominations each child received. The use of peer nominations to determine victim status is well established in the literature (Goodman et al., 2001; Schwartz, Gorman, Nakamoto, & Toblin, 2005).

BASC (Parent Rating Scale- Child). Parents were asked to provide information regarding their children's behavior using the Behavior Assessment System for Children (BASC-PRS-C). The PRS-C is a behavior measure comprised of 138 items with response options on a four-point scale of frequency ranging from "Never" to "Almost Always." The 138-item checklist is broken down into 12 subscales, designed to assess both problem (i.e., aggression, anxiety, depression) and adaptive behaviors (i.e., adaptability, social skills) in the home setting. More broadly, the Parent BASC measures child externalizing (i.e., "Teases others") and internalizing (i.e., "Worries") behaviors, both of which are relevant to the present study (Reynolds & Kamphaus, 1992).

BASC (Teacher Rating Scale- Child). Teachers were asked to provide information regarding students' classroom behavior using the Behavior Assessment System for Children (BASC-TRS-C). The TRS-C is a behavior measure comprised of 148 items with response options on a four-point scale of frequency ranging from "Never" to "Almost Always." The 148-item checklist is broken down into 14 subscales, designed to assess both problem (i.e., aggression, anxiety, depression) and adaptive behaviors (i.e., adaptability, social skills) in the school setting. In a broader domain, the Teacher BASC measures child externalizing (i.e., "Hits other children") and internalizing (i.e., "Is sad") behaviors, both of which are relevant to the current study (Reynolds & Kamphaus, 1992).

Problem Solving Measure for Conflict (PSM-C). Each child was asked to listen to six stories, each of which contains a problem stem and an ending in which the problem has been resolved. The children were to fill in the middle of the story, listing all possible solutions the protagonist could use as an attempt to solve the problem. Two stories involve peer conflict, two involve teacher-student conflict, and two involve parent-child conflict. Children's responses

were coded in the following solution categories: verbal assertion, direct action, help seeking, non-confrontation, physical aggression, verbal aggression, compromise, bargaining, and irrelevant (Lochman & Lampron, 1986). The peer stories are most relevant to the present study (i.e., One day, George/Sarah was standing around with some other kids when one of the kids yelled and called George/Sarah some mean names. George/Sarah got very mad. He/She got so mad he/she wanted to get even with the other kid...The story ends with the other kid not calling George/Sarah names anymore. What happens in between one of the kids teasing George/Sarah and later, when he/she is no longer being teased?). The verbal assertion and help seeking solution codes for the peer stories were evaluated for the current study (Dunn, Lochman, & Colder, 1997; Lochman & Dodge, 1994).

DATA ANALYSIS PLAN

Analyses were completed using eight cross-lagged autoregressive models. The first four models examined the longitudinal, bidirectional relationships between parent reported externalizing behavior and peer victimization, parent reported internalizing behavior and peer victimization, teacher reported externalizing behavior and peer victimization, and teacher reported internalizing behavior and peer victimization. The second four models added verbal assertion and help seeking to the first four models in order to examine the moderating roles they play on these predictive pathways.

Cross-lagged autoregressive models account for the stability of outcome variables (i.e., externalizing behavior, internalizing symptoms, peer victimization). By controlling for the influence of outcome scores at wave 1 on outcome scores at wave 2, these outcome scores at wave 2 can be unequivocally explained by predictor variable scores at wave 1. This measurement of change in the outcome variable across time makes cross-lagged autoregressive modeling an optimal method of analysis for longitudinal data.

To test hypotheses one through four, the following bidirectional predictive pathways were explored in four separate models: (Hypothesis 1) parent reported externalizing behavior-peer victimization, (Hypothesis 2) parent reported internalizing behavior- peer victimization, (Hypothesis 3) teacher reported externalizing behavior- peer victimization, and (Hypothesis 4) teacher reported internalizing behavior- peer victimization. To test hypotheses five through eight and research questions one through four, the moderating roles of verbal assertion and help seeking on the aforementioned pathways were explored in the following models: (Hypothesis 5

and Research Question 1) parent reported externalizing behavior- peer victimization with moderation, (Hypothesis 6 and Research Question 2) parent reported internalizing behavior- peer victimization with moderation, (Hypothesis 7 and Research Question 3) teacher reported externalizing behavior- peer victimization with moderation, and (Hypothesis 8 and Research Question 4) teacher reported internalizing behavior- peer victimization with moderation.

All significant and trending interactions were graphed to determine how the model variables related to one another. Verbal assertion and help seeking scores spanned primarily from zero to two, with only two participants scoring a three on verbal assertion. Given this range of three data points, a true median split of verbal assertion and help seeking was not possible, as the middle group caused a larger n in whichever group it was paired with. To determine the optimal split for each interaction graph, scatter plots with best fit lines for each subgroup were produced. The middle group was paired with either the low or high group, depending upon which best fit line this middle group better approximated.

RESULTS

Preliminary Analyses

The initial intention was to analyze data from three of the four time points included in the original study. The first time point, fall of 5th grade, was excluded because victimization data was not collected at this time point, and was therefore unavailable. Thus, the initial sample for the present study was comprised of the following three time points: spring of 5th grade, spring of 7th grade, and spring of 8th grade. This sample was made up of two cohorts (80 subjects). However, initial analyses of the path models produced unstable estimates, most likely due to small sample size. As a result, the first of the three time points (spring of 5th grade) was dropped in favor of adding an additional cohort (40 subjects). The final sample for the present study included two time points (spring of 7th grade and spring of 8th grade) and three cohorts (120 subjects). These two time points examined in the analyses below (time 3 and time 4 from the original study) will be referred to as wave 1 and wave 2 from this point forward.

Table 1 shows the means, standard deviations, skewness, and kurtosis of the study variables. Initial analyses revealed five positively skewed variables. Their original skewness and kurtosis values were the following: Parent Externalizing Wave 1= 1.293, 1.721; Teacher Internalizing Wave 1= 1.157, .720; Teacher Internalizing Wave 2= 1.642, 4.185; Peer Victimization Wave 1= 1.155, .746; and Peer Victimization Wave 2= 1.785, 2.729. To normalize their distributions, square root transformations were run on both time points of Parent Externalizing, Teacher Internalizing, and Peer Victimization. Parent Externalizing Wave 2 was transformed in order to maintain scale consistency within construct (original skewness and

kurtosis values were 1.016 and 1.364).

Table 1

Study Variable Descriptives, Including Transformed Variables

| Variable | Mean | Std. Deviation | Skewness | Kurtosis |
|--|-------|----------------|----------|----------|
| Parent Externalizing W1 (PE1) ^{TF} | 4.65 | 1.51 | .329 | .395 |
| Parent Externalizing W2 (PE2) ^{TF} | 4.69 | 1.36 | .263 | -.127 |
| Parent Internalizing W1 (PI1) | 21.77 | 10.63 | .654 | .670 |
| Parent Internalizing W2 (PI2) | 21.21 | 9.56 | 1.092 | 2.080 |
| Teacher Externalizing W1 (TE1) | 28.46 | 18.64 | .677 | -.210 |
| Teacher Externalizing W2 (TE2) | 30.67 | 20.68 | .720 | .081 |
| Teacher Internalizing W1 (TI1) ^{TF} | 2.70 | 1.30 | .234 | -.368 |
| Teacher Internalizing W2 (TI2) ^{TF} | 2.43 | 1.07 | .036 | .614 |
| Peer Victimization W1 (PV1) ^{TF} | 1.07 | .38 | .403 | -.024 |
| Peer Victimization W2 (PV2) ^{TF} | .94 | .50 | .965 | .318 |
| Verbal Assertion W1 (VA1) | 1.21 | .72 | -.022 | -.474 |
| Help Seeking W1 (HS1) | .68 | .71 | .552 | -.873 |

Note: ^{TF} Indicates transformed variable

Table 2 presents the correlations between all study variables. An examination of these correlations revealed that parent externalizing and internalizing, teacher externalizing and internalizing, and peer victimization were all positively correlated within source and construct across time.

Within source, between construct: Both parent and teacher reports of externalizing and internalizing behavior were correlated within and between constructs across time.

Between source, within construct: Parent and teacher reports of externalizing and internalizing behavior were all correlated within construct, with the exception of parent and teacher reported externalizing behavior at wave 2. Across time, teacher reports of externalizing and internalizing behavior at wave 1 were correlated with parent reports of externalizing and internalizing behavior at wave 2.

Between source, between construct: Teacher reported externalizing behavior at wave 1 was correlated with parent reported internalizing behavior at wave 2. Teacher reported

internalizing behavior at wave 1 was correlated with parent reported externalizing behavior within and across time.

Peer victimization was correlated with parent report of internalizing behavior across, but not within, time. Specifically, peer victimization at wave 1 was correlated with parent reported internalizing at wave 2, and peer victimization at wave 2 was correlated with parent reported internalizing at wave 1. Additionally, peer victimization at both time points was correlated with teacher reported internalizing at wave 1.

Only one significant correlation between problem solving tactics and other study variables emerged. Verbal assertion at wave 1 was negatively correlated with teacher report of externalizing behavior within time.

Table 2*Study Variable Correlations*

| Variable | PE1 | PE2 | P11 | PI2 | TE1 | TE2 | T11 | T12 | PV1 | PV2 | VA1 | HS1 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PE1 (n=103) | ----- | | | | | | | | | | | |
| PE2 (n=100) | .83** | ----- | | | | | | | | | | |
| P11 (n=103) | .62** | .56** | ----- | | | | | | | | | |
| PI2 (n=100) | .53** | .65** | .75** | ----- | | | | | | | | |
| TE1 (n=97) | .30** | .34** | .09 | .21* | ----- | | | | | | | |
| TE2 (n=87) | .09 | .12 | .01 | .08 | .38** | ----- | | | | | | |
| T11 (n=97) | .23* | .23* | .23* | .30** | .61** | .24* | ----- | | | | | |
| T12 (n=87) | .21 | .20 | .20 | .25* | .24* | .59** | .27* | ----- | | | | |
| PV1 (n=65) | .14 | .20 | .11 | .34** | .06 | .01 | .41** | .07 | ----- | | | |
| PV2 (n=75) | .23 | .24 | .24* | .12 | .10 | -.09 | .26* | .01 | .58** | ----- | | |
| VA1 (n=104) | -.001 | -.05 | -.10 | -.01 | -.21* | -.03 | -.20 | .01 | .01 | -.09 | ----- | |
| HS1 (n=104) | .01 | -.05 | -.05 | -.15 | -.07 | .11 | .09 | -.01 | .01 | .18 | -.19 | ----- |

Note: ** Indicates correlation is significant at the .01 level; * Indicates correlation is significant at the .05 level

PE1= Parent Externalizing Wave 1, PE2= Parent Externalizing Wave 2, P11= Parent Internalizing Wave 1, P12= Parent Internalizing Wave 2, TE1= Teacher Externalizing Wave 1, TE2= Teacher Externalizing Wave 2, T11= Teacher Internalizing Wave 1, T12= Teacher Internalizing Wave 2, PV1= Peer Victimization Wave 1, PV2= Peer Victimization Wave 2, VA1= Verbal Assertion Wave 1, HS1= Help Seeking Wave 1

- █ Indicates within source, within construct, across time
- _____ Indicates within source, between construct, across time
- Indicates between source, within construct, across time
- Indicates between source, between construct, across time

Modeling: Externalizing, Internalizing, Peer Victimization

Cross-lagged autoregressive modeling was used to examine the reciprocal relationships between externalizing behavior and peer victimization, and between internalizing behavior and peer victimization. The initial intention was to create a single externalizing score and a single internalizing score by combining parent and teacher reports. However, preliminary analyses revealed a nonsignificant relationship between parent and teacher reported externalizing behavior at wave 2, $r = .12$, $n = 79$, $p > .05$. Although statistically significant correlations were found

between parent and teacher reports of externalizing behavior at wave 1 and internalizing behavior at waves 1 and 2, the correlations were of modest magnitude ($r = .23- .30$). Thus, the decision was made to run the models examining parent and teacher reports of externalizing and internalizing behavior separately.

Four path models were estimated (parent externalizing- victimization, parent internalizing- victimization, teacher externalizing- victimization, and teacher internalizing- victimization). The models included stability estimates for each construct and within-time associations among constructs. These analyses provided a stringent test of the direction of effects that might account for the longitudinal association between externalizing and internalizing behaviors and peer victimization. In each model, nonsignificant paths were pruned one at a time until the removal of a path resulted in a decrease in model fit. Therefore, non-significant paths were retained in instances where their removal negatively impacted model fit. Although the hypothesized models proposed that externalizing and internalizing behaviors would uniquely predict peer victimization and vice versa, the models that best fit the data are presented in Figures A through D.

Parent reported externalizing model (Hypothesis 1): Model fit was excellent for the parent reported externalizing behavior model (Figure A), $\chi^2(1) = .266$, $p = .606$, RMSEA = 0.000, 90% CI = 0.000 – 0.200, CFI = 1.0, TLI = 1.028. Parent reported externalizing behavior and peer victimization were stable over time (both p 's < 0.001). No significant paths emerged indicating that externalizing behavior predicted peer victimization, nor that peer victimization predicted externalizing behavior.

Parent reported internalizing model (Hypothesis 2): Model fit was acceptable for the parent reported internalizing behavior model (Figure B), $\chi^2(1) = 1.611$, $p = .204$, RMSEA =

0.074, 90% CI = 0.000 – 0.275, CFI = .994, TLI = .971. Parent reported internalizing behavior and peer victimization were stable over time (both p 's < 0.001). They were also stable across construct, within time at wave 2 ($p = .005$). Peer victimization at wave 1 predicted the change in internalizing behavior at wave 2 ($\beta = .195$, $\sigma = .086$, $p = .024$), with more victimization predicting increased internalizing behavior.

Teacher reported externalizing model (Hypothesis 3): Model fit was excellent for the teacher reported externalizing behavior model (Figure C), $\chi^2(1) = .342$, $p = .559$, RMSEA = 0.000, 90% CI = 0.000 – 0.213, CFI = 1.0, TLI = 1.114. Teacher reported externalizing behavior and peer victimization were stable over time (both p 's < 0.001). No significant paths emerged indicating that externalizing behavior predicted peer victimization, nor that peer victimization predicted externalizing behavior.

Teacher reported internalizing model (Hypothesis 4): Model fit was excellent for the teacher reported internalizing behavior model (Figure D), $\chi^2(1) = .300$, $p = .584$, RMSEA = 0.000, 90% CI = 0.000 – 0.209, CFI = 1.0, TLI = 1.198. Teacher reported internalizing behavior and peer victimization were stable over time ($p = .01$ and $p < .001$, respectively). They were also stable across construct, within time at wave 1 ($p = .008$). No significant paths emerged indicating that internalizing behavior predicted peer victimization, nor that peer victimization predicted internalizing behavior.

Modeling: Problem Solving as a Moderator

Verbal assertion and help seeking were added to the four original models to evaluate their moderating effects on the externalizing-victimization and internalizing-victimization pathways. The hypothesized models proposed that verbal assertion would moderate these relationships, acting as a protective factor against predicted negative outcomes. The models also sought to

explore whether help seeking would have a similar effect. The models that best fit the data are presented in Figures E through H.

Parent reported externalizing with moderation model (Hypothesis 5 and Research Question 1): Model fit was acceptable for the parent reported externalizing behavior with moderation model (Figure E), $\chi^2(13) = 21.165, p = .070, RMSEA = .075, 90\% CI = 0.000 - 0.131, CFI = .980, TLI = .963$. Parent reported externalizing behavior and peer victimization were stable over time (both p 's < 0.001). Verbal assertion at wave 1 predicted the change in externalizing behavior at wave 2 ($\beta = -.285, \sigma = .108, p = .008$), with more verbal assertion predicting decreased externalizing behavior.

The interaction between peer victimization and verbal assertion at wave 1 predicted the change in externalizing behavior at wave 2 (Figure 1a), $\beta = .258, \sigma = .112, p = .021$. Figure 1a depicts difference scores for parent reported externalizing behavior (wave 2- wave 1) on the Y-axis, a median split of peer victimization at wave 1 on the X-axis, and a low-high split of verbal assertion at wave 1 in the graphed interaction. The scatterplot supporting this low-high split is presented in Figure 1b. For more victimized children, high verbal assertion predicted high externalizing behavior and low verbal assertion predicted low externalizing behavior. For less victimized children, high verbal assertion predicted low externalizing behavior and low verbal assertion predicted high externalizing behavior.

There was a nonsignificant trend found for the interaction between peer victimization and help seeking at wave 1 to predict the change in externalizing behavior at wave 2 (Figure 2a), $\beta = -.104, \sigma = .056, p = .064$. Figure 2a depicts difference scores for parent reported externalizing behavior (wave 2- wave 1) on the Y-axis, a median split of peer victimization at wave 1 on the X-axis, and an absent-present split of help seeking at wave 1 in the graphed interaction. The

scatterplot supporting this absent-present split is presented in Figure 2b. For more victimized children, help seeking had a minimal influence on externalizing behavior. For less victimized children, the presence of help seeking predicted high externalizing behavior and the absence of help seeking predicted low externalizing behavior.

Parent reported internalizing with moderation model (Hypothesis 6 and Research Question 2): Model fit was excellent for the parent reported internalizing behavior with moderation model (Figure F), $\chi^2(11) = 9.220, p = .602, RMSEA = 0.000, 90\% CI = 0.000 - 0.086, CFI = 1.0, TLI = 1.011$. Parent reported internalizing behavior and peer victimization were stable over time (both p 's < 0.001). They were also stable across construct, within time at wave 2 ($p = .004$). Verbal assertion at wave 1 predicted the change in internalizing behavior at wave 2 ($\beta = -.317, \sigma = .138, p = .022$), with more verbal assertion predicting decreased internalizing behavior.

The interaction between peer victimization and verbal assertion at wave 1 predicted the change in internalizing behavior at wave 2 (Figure 3a), $\beta = .428, \sigma = .144, p = .003$. Figure 3a depicts difference scores for parent reported internalizing behavior (wave 2- wave 1) on the Y-axis, a median split of peer victimization at wave 1 on the X-axis, and an absent-present split of verbal assertion at wave 1 in the graphed interaction. The scatterplot supporting this absent-present split is presented in Figure 3b. For more victimized children, the presence of verbal assertion predicted low internalizing behavior and the absence of verbal assertion predicted high internalizing behavior. For less victimized children, verbal assertion had a minimal influence on internalizing behavior.

There was a nonsignificant trend found for the interaction between peer victimization and help seeking at wave 1 to predict the change in internalizing behavior at wave 2 (Figure 4a), $\beta =$

-.114, $\sigma = .069$, $p = .098$. Figure 4a depicts difference scores for parent reported internalizing behavior (wave 2- wave 1) on the Y-axis, a median split of peer victimization at wave 1 on the X-axis, and an absent-present split of help seeking at wave 1 in the graphed interaction. The scatterplot supporting this absent-present split is presented in Figure 4b. For more victimized children, help seeking had a minimal influence on internalizing behavior. For less victimized children, the presence of help seeking predicted high internalizing behavior and the absence of help seeking predicted low internalizing behavior.

Internalizing behavior at wave 1 predicted the change in peer victimization at wave 2 ($\beta = .385$, $\sigma = .179$, $p = .032$), with more internalizing behavior predicting increased peer victimization.

The interaction between internalizing behavior and verbal assertion at wave 1 predicted the change in peer victimization at wave 2 (Figure 5a), $\beta = -.567$, $\sigma = .256$, $p = .027$. Figure 5a depicts difference scores for peer victimization (wave 2- wave 1) on the Y-axis, a median split of parent reported internalizing behavior at wave 1 on the X-axis, and a low-high split of verbal assertion at wave 1 in the graphed interaction. The scatterplot supporting this low-high split is presented in Figure 5b. For more internalizing children, high verbal assertion predicted low peer victimization and low verbal assertion predicted high peer victimization. For less internalizing children, high verbal assertion predicted high peer victimization and low verbal assertion predicted low peer victimization.

There was a nonsignificant trend found for the interaction between internalizing behavior and help seeking at wave 1 to predict the change in peer victimization at wave 2 (Figure 6a), $\beta = .180$, $\sigma = .109$, $p = .099$. Figure 6a depicts difference scores for peer victimization (wave 2- wave 1) on the Y-axis, a median split of parent reported internalizing behavior at wave 1 on the X-

axis, and a low-high split of help seeking at wave 1 in the graphed interaction. The scatterplot supporting this low-high split is presented in Figure 6b. For more internalizing children, high help seeking predicted low peer victimization and low help seeking predicted high peer victimization. For less internalizing children, high help seeking predicted high peer victimization and low help seeking predicted low peer victimization.

Teacher reported externalizing with moderation model (Hypothesis 7 and Research Question 3): Model fit was acceptable for the teacher reported externalizing behavior with moderation model (Figure G), $\chi^2(18) = 21.870, p = .238, RMSEA = 0.043, 90\% CI = 0.000 - 0.098, CFI = .991, TLI = .984$. Teacher reported externalizing behavior and peer victimization were stable over time (both p 's < 0.001).

There was a nonsignificant trend found for the interaction between externalizing behavior and help seeking at wave 1 to predict the change in peer victimization at wave 2 (Figure 7a), $\beta = .227, \sigma = .123, p = .065$. Figure 7a depicts difference scores for peer victimization (wave 2- wave 1) on the Y-axis, a median split of teacher reported externalizing behavior at wave 1 on the X-axis, and an absent-present split of help seeking at wave 1 in the graphed interaction. The scatterplot supporting this absent-present split is presented in Figure 7b. For more externalizing children, the presence of help seeking predicted high peer victimization and the absence of help seeking predicted low peer victimization. For less externalizing children, help seeking had a minimal influence on peer victimization.

Teacher reported internalizing with moderation model (Hypothesis 8 and Research Question 4): Model fit was excellent for the teacher reported internalizing behavior with moderation model (Figure H), $\chi^2(17) = 14.370, p = .641, RMSEA = 0.000, 90\% CI = 0.000 - 0.071, CFI = 1.0, TLI = 1.011$. Teacher reported internalizing behavior and peer victimization

were stable over time ($p = .006$ and $p < .001$, respectively). They were also stable across construct, within time at wave 1 ($p = .033$), as were teacher reported internalizing behavior and verbal assertion at wave 1 ($p = .019$).

There was a nonsignificant trend found for the interaction between internalizing behavior and help seeking at wave 1 to predict the change in peer victimization at wave 2 (Figure 8a), $\beta = .188$, $\sigma = .113$, $p = .095$. Figure 8a depicts difference scores for peer victimization (wave 2- wave 1) on the Y-axis, a median split of teacher reported internalizing behavior at wave 1 on the X-axis, and an absent-present split of help seeking at wave 1 in the graphed interaction. The scatterplot supporting this absent-present split is presented in Figure 8b. For more internalizing children, the presence of help seeking predicted high peer victimization and the absence of help seeking predicted low peer victimization. For less internalizing children, the presence of help seeking predicted low peer victimization and the absence of help seeking predicted high peer victimization.

DISCUSSION

Results of the present study highlight the importance of considering the relationships between externalizing and internalizing behavior and peer victimization, as well as the moderating roles played by verbal assertion and help seeking. It was hypothesized that parent and teacher reported externalizing and internalizing behavior would predict the change in peer victimization, as would peer victimization predict the change in parent and teacher reported externalizing and internalizing behavior. Only one of these predictive pathways was realized, with parent reported internalizing behavior predicting an increase in peer victimization over time. In the presence of verbal assertion, it was hypothesized that externalizing and internalizing behavior and peer victimization would not be predictive of increased negative outcomes. In line with this hypothesis, the current findings indicate that, at high levels of verbal assertion, peer victimization does not predict an increase in parent reported internalizing behavior, nor does parent reported internalizing behavior predict an increase in peer victimization. However, contradictory to this hypothesis, peer victimization did predict an increase in parent reported externalizing behavior when levels of verbal assertion were high. There is no evidence to suggest that help seeking plays a moderating role in any of the examined pathways.

Source and Setting Effects

All significant findings in the present study involved parent rather than teacher-reported behavior. A possible explanation for this result is that home and school are fundamentally different from one another in terms of who children interact with and the behavioral and emotional expectations and allowances in each setting. For instance, parent-child interactions

differ from peer interactions, such that a behavior deemed appropriate in one does not guarantee that same behavior be considered appropriate in the other. Behavior and emotional expression are also situationally driven, and thus are likely to vary across the home and school settings. For example, children may more openly display their emotions at home where they are safe from the social consequences of showing weakness or vulnerability to their peers. Further, any behaviors that are consistent across settings may be viewed differently by parents and teachers as a result of their differing baselines for comparison. Given these possibilities, it is important to note that significant findings based on parent report only provide information about children's behaviors and interactions in the home. While generalizations cannot then be made regarding school behavior or peer interactions with any certainty, the findings can be used to make inferences that may provide further information about externalizing and internalizing behaviors as they relate to peer relationships.

It is important to note that previous research on externalizing and internalizing behavior and peer victimization has, in fact, found significant results using teacher report. However, these studies' samples were comprised of preschoolers through sixth graders, all younger age groups than the present study explored, and none utilized at-risk for aggression samples, as did the present study. Further, there are several other factors that could have impacted this particular sample, leading to the nonsignificant findings in the case of teacher-reported behaviors. First, children's teachers and behavior can both change when they transition from seventh to eighth grade. It may be that these teachers are not consistent with one another in their reports of externalizing and internalizing behavior, or children's behavior may simply change, such that symptomology present one year is no longer present the next, or vice versa. Secondly, teachers do not always have the opportunity to observe student behavior closely, particularly when it

comes to internalizing behavior. In fact, many internalizing items on teacher report scales require that inferences be made about internalizing states (e.g., worrying) rather than explicit behaviors (e.g., crying). In addition to the difficulty of this task in a classroom setting, other factors (e.g., number of students per class, classroom environment, etc.) may have prevented these teachers from observing their students closely enough to offer reports of their emotional states. Lastly, due to expected increases in independence and responsibility, teachers do not spend as much time with middle school children as they do with elementary school children. This raises the question as to whether teacher report may be a more useful measure of behavior for younger, rather than older, age groups. This possibility is partially supported by the previously noted significant findings using teacher report for preschool through sixth grade samples. Although stability of teacher ratings of children's behavior has been explored in younger and older samples (Canivez, Perry, & Weller, 2001; Chen, Zhang, & Wang, 2009; Romer & Merrell, 2013), the stability of teacher ratings on externalizing and internalizing behavior for middle school samples has not been explored. It is therefore difficult to comment on whether there is merit to the notion that teacher report may be a less useful measure of behavior than perhaps parent, peer, or self report, for older samples. Ultimately, it is unclear if these setting differences are due to teacher report or to actual differences for this particular age group in the home versus school settings.

Verbal Assertion as a Protective Factor

The parent reported internalizing with moderation model yielded results indicating that, as observed in the home setting, verbal assertion has little effect on internalizing behavior at low levels of peer victimization, whereas at high levels of peer victimization, verbal assertion acts as a protective factor, leading to lower levels of internalizing behavior. A likely explanation for this finding is that children high on victimization are consistently confronted with feelings of

sadness, worry, isolation, and loneliness as a result of the teasing they endure (Reijntjes et al., 2010). However, in verbally asserting themselves against this peer harassment, they may alleviate some of these symptoms in their parents' eyes. Whereas teachers are less able to observe subtle behavioral changes given the number of children they are responsible for at any one time, parents have the opportunity to know their children more intimately and form a clearer baseline. Thus, they are likely better suited to recognize improvements as they pertain to displays of internalizing behavior. It is important to keep in mind that there is no guarantee verbal assertion is being used effectively or reducing the amount of victimization these children experience. Rather, their decrease in internalizing behavior may be attributed to a stronger internal locus of control. In using verbal assertion, children may believe they hold some control over the situation and are capable of handling peer conflicts they are confronted with. However accurate or inaccurate that belief may be, the simple act of feeling more in control may relieve the internal pressure they experience.

When internalizing behavior is explained as a predictor of later victimization, the parent reported internalizing with moderation model yielded results indicating that in the home setting, internalizing behavior predicts peer victimization at low levels of verbal assertion, whereas internalizing behavior does not predict peer victimization at high levels of verbal assertion. Thus, verbal assertion acted as a protective factor for parent reported internalizing behavior in children, leading to lower levels of peer victimization. Notably, internalizing behavior did not have the same predictive effect for teachers as for parents. It may be that most children generally inhibit their expression of overt internalizing behaviors, such as crying, in the school setting. In the same vein, children may be more likely to display a greater range of emotions with more frequency at home. Thus, internalizing behaviors that parents witness at home may carry over to

the school setting in more subtle ways, such as through fearfulness and withdrawal (Hodges & Perry, 1999). These behaviors likely paint children high on internalizing as easy targets, making them susceptible to peer harassment. However, if they are able to speak up for themselves and confront peers in an appropriately assertive manner, this likely contradicts the characteristics that initially made them ideal targets. Thus, they are able to spare themselves the victim status they were vulnerable to reaching.

An interesting finding from this model revealed that for children low on parent reported internalizing behavior, higher rates of verbal assertion were actually predictive of increased peer victimization. It should be noted that this increase occurred at modest levels, rising from low to average, but never reaching high levels of victimization. Kochenderfer-Ladd & Skinner (2002) found similar results in another context, with higher rates of social support seeking in nonvictimized girls being predictive of increased social problems. It was suggested that if girls are not frequently faced with peer difficulties but still seek advice from others, they may be perceived by their classmates to some degree as emotionally needy or socially incompetent in handling minor conflicts. A similar phenomenon could be occurring in some cases of children low on internalizing who utilize verbal assertion, either too broadly or too frequently. As proposed by Pellegrini et al. (1999), there is generally an expectation for peers to behave in a manner consistent with classroom norms. Thus, in these particular cases, these children may be subjecting themselves to peer harassment by verbally asserting themselves excessively in the eyes of their classmates. In all likelihood, verbal assertion generally remains a positive skill for children low on internalizing behavior.

Verbal Assertion as an Exacerbating Factor

The parent reported externalizing with moderation model produced results indicating that peer victimization predicted increased parent reported externalizing behavior in the presence of verbal assertion. This effect was surprising, as verbal assertion has been observed as a positive problem-solving tactic in the literature, and yet the use of verbal assertion by victimized children predicted a higher incidence of negative outcomes as reported by their parents. It is possible that these children's attempts at verbal assertion in the school setting are deemed appropriate by teachers, who have the advantage of viewing each child's behavior in relation to other children, and are therefore provided with a clearer baseline for typical behavior. Parents, though, may view their own child's behavior as out of line, not having the opportunity to see the normality of it as compared to same-age peers. Alternatively, it may be that using verbal assertion with peers versus with parents is fundamentally different. With children on equal footing, assertiveness is likely an appropriate manner in which to handle conflict. However, in dealing with parents, the same level of assertiveness may be viewed as disrespectful or disobedient, leading parents to see externalizing behaviors that teachers do not have the opportunity to observe in peer interactions.

Results Consistent with Prior Findings

Four main effects well-documented in the literature were observed. In the absence of moderation, higher rates of peer victimization predicted increased parent reported internalizing behavior. This finding falls in line with the position that the embarrassment and isolation that come with being victimized could reasonably lead to feelings of depression, anxiety, and loneliness (Reijntjes et al., 2010). Given the subtle nature of these symptoms and the possibility that children more willingly express these emotions at home than at school, it is likely that parents are better suited than teachers to observe these internalizing behaviors.

With moderation present in the models, three other main effects were revealed, though all three were qualified by interaction effects. Higher rates of parent reported internalizing behavior were predictive of increased peer victimization. Given that teachers did not observe internalizing behaviors at a level consistent with parents, it's probably the case that children are typically not displaying their sadness or loneliness in an overt manner at school. More likely, peers pick up on the subtleties of anxiety and withdrawal that not only invite teasing, but are also reinforced when these children high on internalizing are unable to effectively assert themselves. Increased verbal assertion was found to predict, as reported by parents, both decreased externalizing and internalizing behavior. These findings are consistent with previous research showing increased aggression (Dunn, Lochman, & Colder, 1997) and depression (Dubow et al., 1991) in the absence of verbal assertion. With regard to externalizing behavior, the positive effects of verbal assertion may be more visible at home than at school. In the school setting, other risk factors, such as deviant peers or frustration with schoolwork, may have a stronger influence on externalizing behavior than verbal assertion alone can overcome. In terms of internalizing behavior, the intimacy that parents share with their children likely places them in a more optimal position than teachers to recognize changes in what are often subtle behaviors.

Clinical Implications

Verbal assertion played a protective role for victimized children, minimizing their later experience of parent reported internalizing behavior. Verbal assertion also played a protective role for children high on parent reported internalizing behavior, minimizing their later experience of peer victimization. Victimized children are consistently confronted with teasing, and they perhaps lack the sense of control needed to assert themselves. Similarly, children high on internalizing typically display symptoms such as anxiety, depression, fearfulness, and

withdrawal, making them unlikely candidates to handle peer conflicts in an appropriately direct manner. However, results indicate that when these children are able to speak up for themselves, they successfully reduce their experience of negative outcomes. Despite these results, it is not inherently clear whether verbal assertion is being used effectively. Rather, in the case of victimized children, decreased parent reported internalizing behavior could be attributed to children's perceived sense of control, which relieves anxiety and depression symptoms. In the case of parent reported internalizing behavior in children, verbal assertion could lead to decreased victimization by making these children appear less weak and vulnerable, and thus, as less ideal targets. Interventions that encourage victimized children and children high on internalizing behavior to use verbal assertion in peer conflicts, while emphasizing the skills needed to use it appropriately and effectively, would likely be an important piece in halting the peer victimization-internalizing behavior cycle.

For children high on victimization, verbal assertion predicted an increase in parent reported externalizing behavior. Although verbal assertion is typically a positive approach to problem solving, what may be an effective use in the school setting may be inappropriate at home. Specifically, assertiveness may be well-received by peers whereas it may take the form of or be interpreted as disrespect when involving parents. Alternatively, these children may be lacking the skill set to use verbal assertion effectively. What begins as an earnest attempt to handle a peer conflict in an appropriately direct manner may escalate into aggression and fighting when the attempt is unsuccessful. Therefore, interventions geared toward teaching victimized children to use verbal assertion effectively, emphasizing what constitutes appropriate assertiveness with peers versus parents, may help prevent externalizing outcomes by arming them with a skill set that allows for a level of control over their social interactions.

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APPENDIX

Figure 1a: Significant Interaction
Peer Victimization x Verbal Assertion Predicting Parent Reported Externalizing Behavior

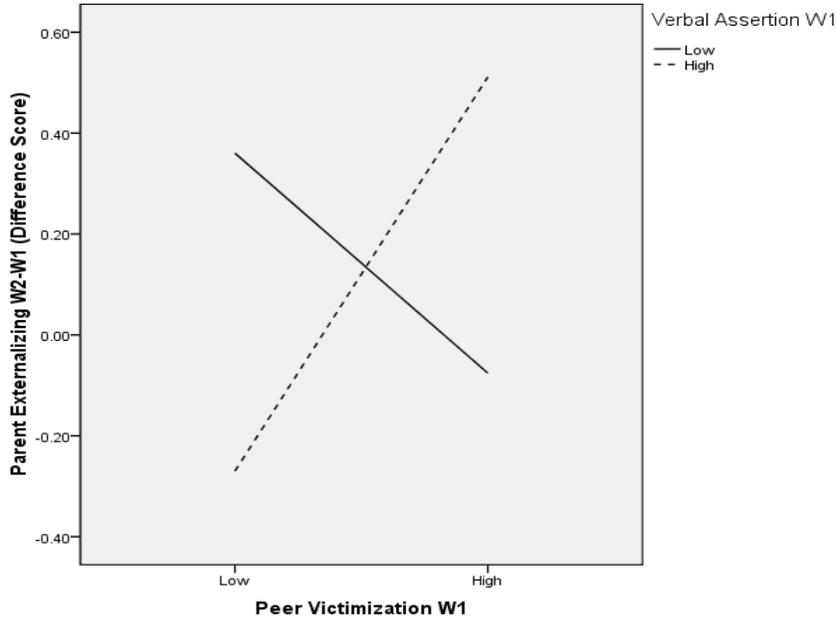


Figure 1b: Scatterplot
Peer Victimization x Verbal Assertion Predicting Parent Reported Externalizing Behavior

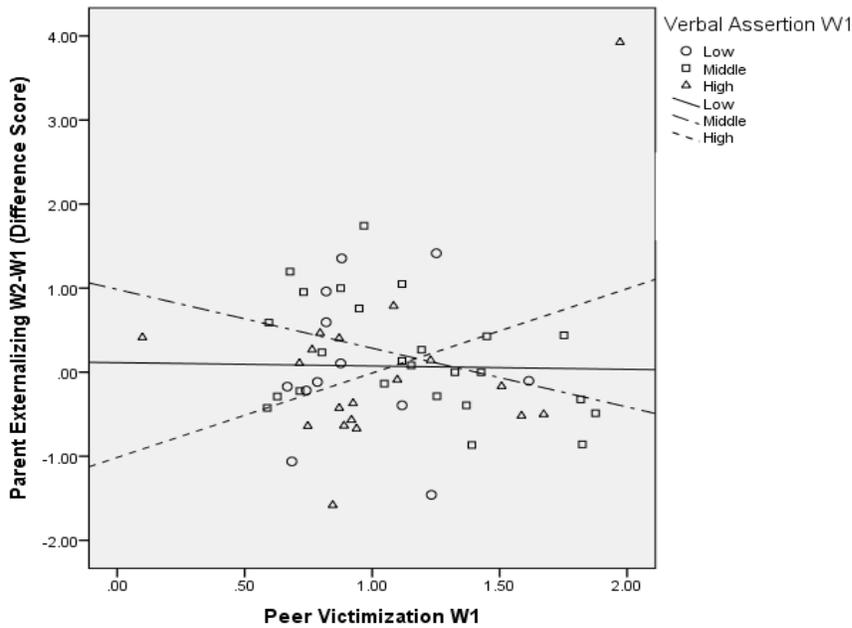


Figure 2a: Trending Interaction
Peer Victimization x Help Seeking Predicting Parent Reported Externalizing Behavior

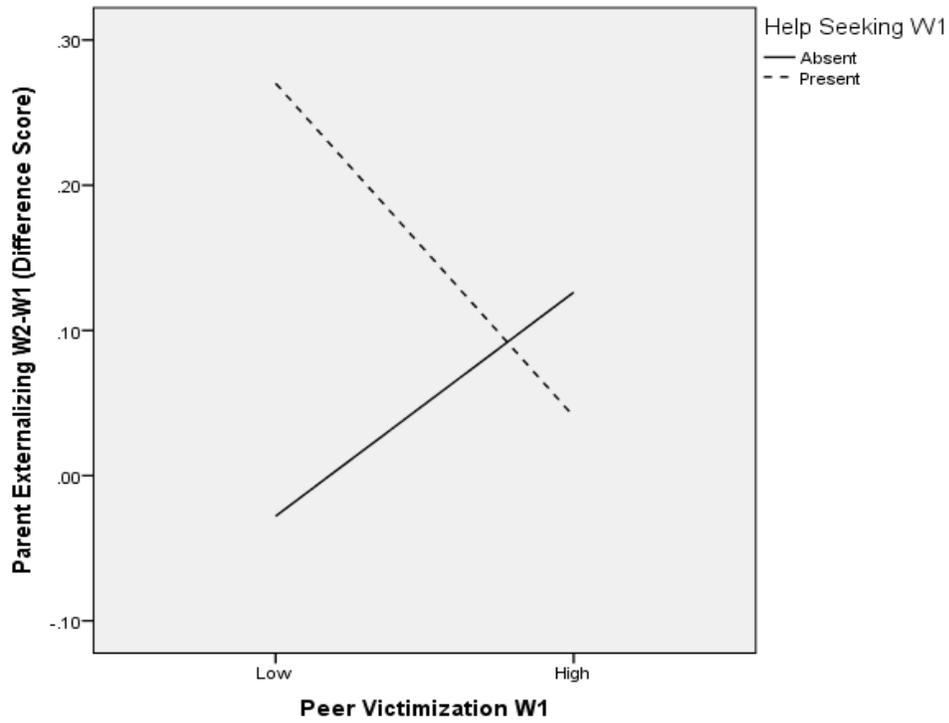


Figure 2b: Scatterplot
Peer Victimization x Help Seeking Predicting Parent Reported Externalizing Behavior

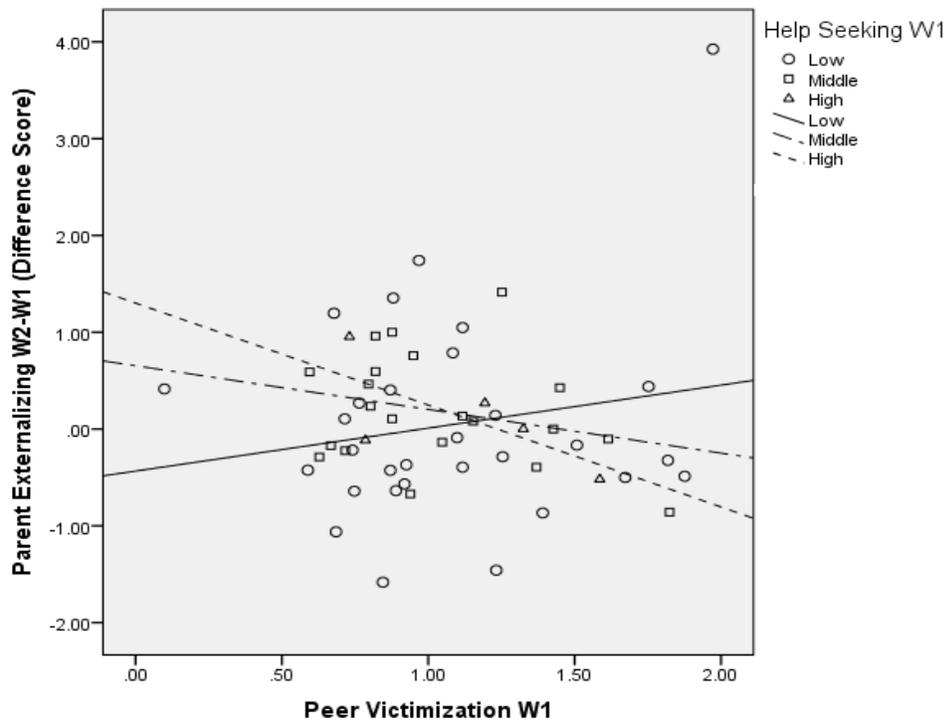


Figure 3a: Significant Interaction
Peer Victimization x Verbal Assertion Predicting Parent Reported Internalizing Behavior

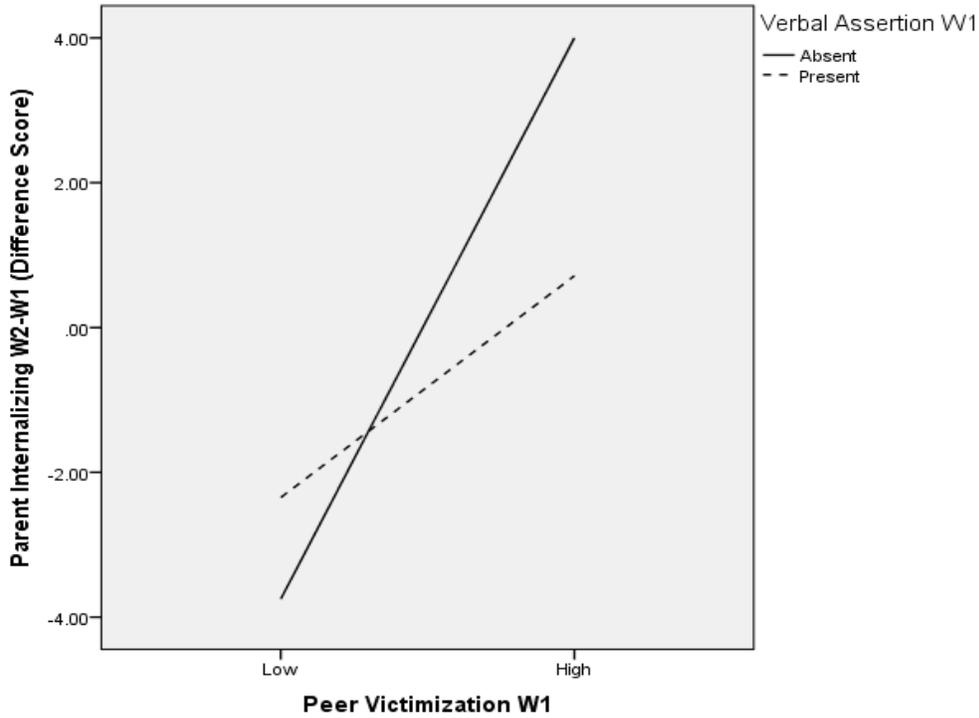


Figure 3b: Scatterplot
Peer Victimization x Verbal Assertion Predicting Parent Reported Internalizing Behavior

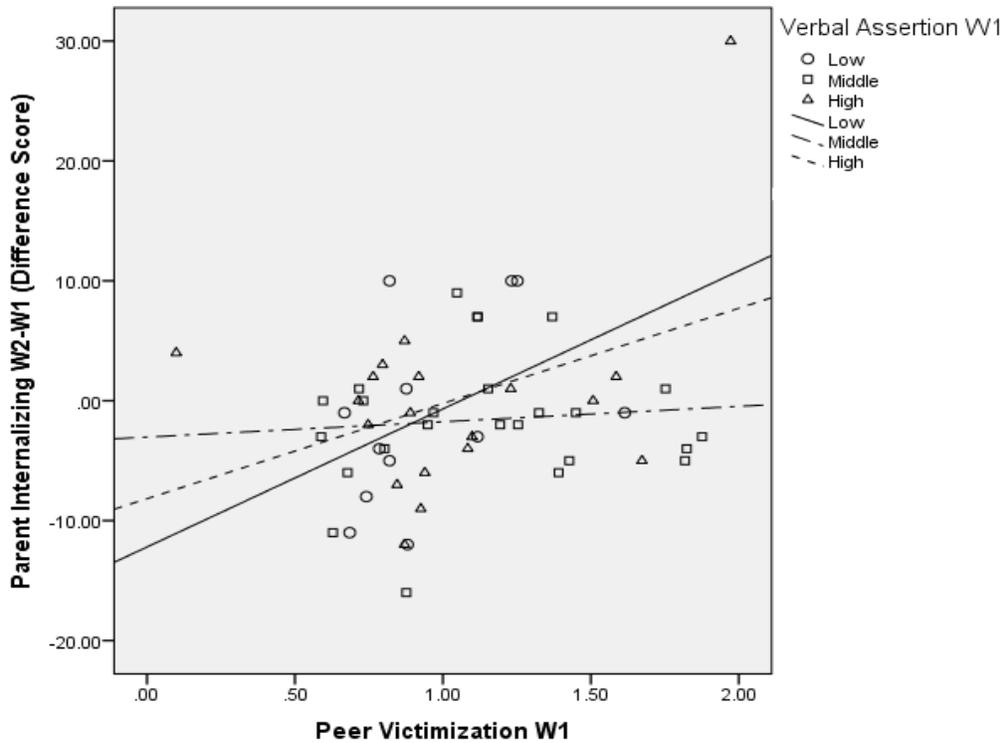


Figure 4a: Trending Interaction
Peer Victimization x Help Seeking Predicting Parent Reported Internalizing Behavior

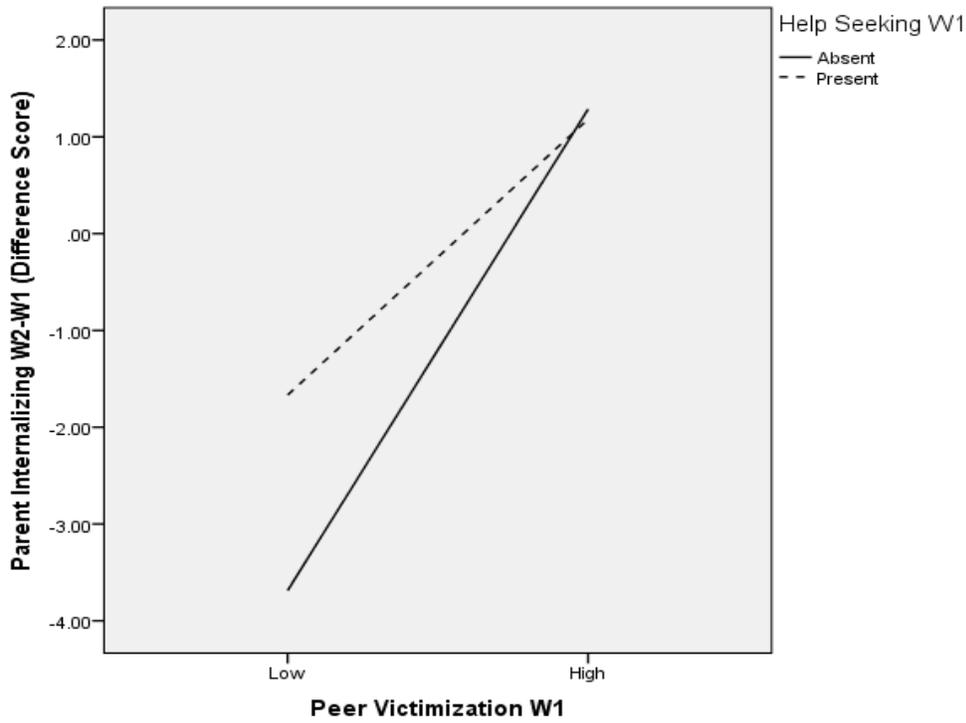


Figure 4b: Scatterplot
Peer Victimization x Help Seeking Predicting Parent Reported Internalizing Behavior

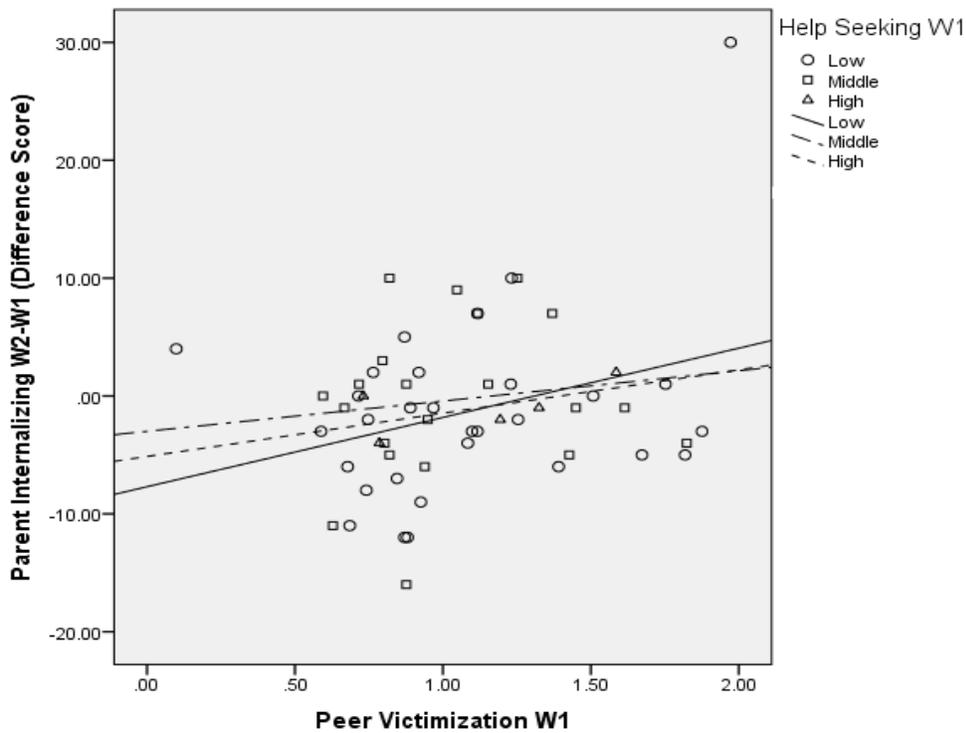


Figure 5a: Significant Interaction
Parent Reported Internalizing Behavior x Verbal Assertion Predicting Peer Victimization

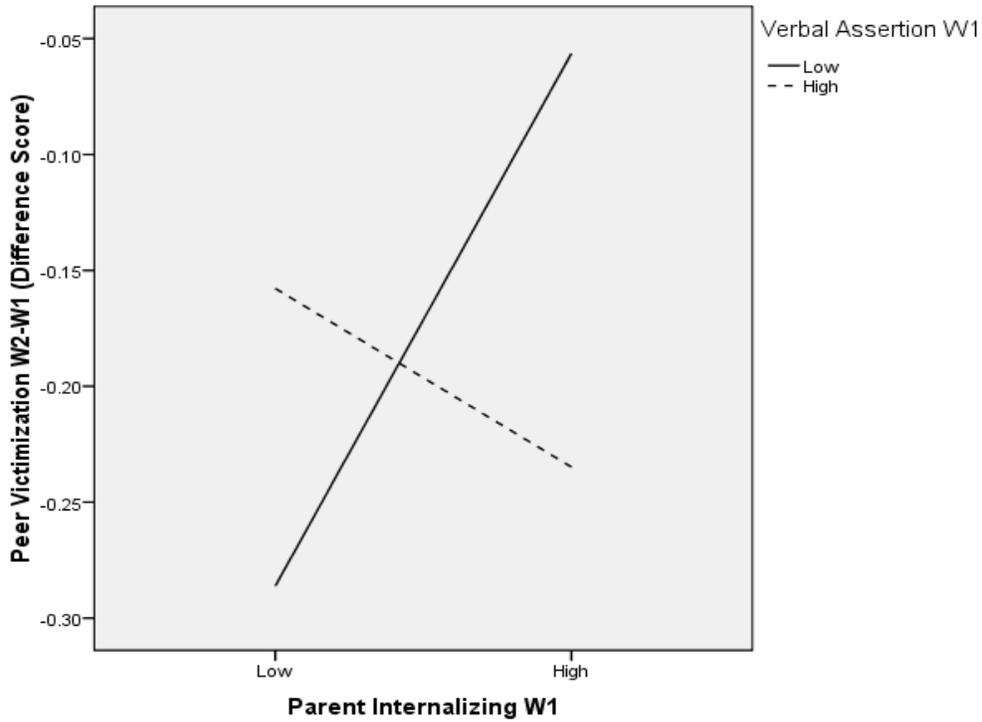


Figure 5b: Scatterplot
Parent Reported Internalizing Behavior x Verbal Assertion Predicting Peer Victimization

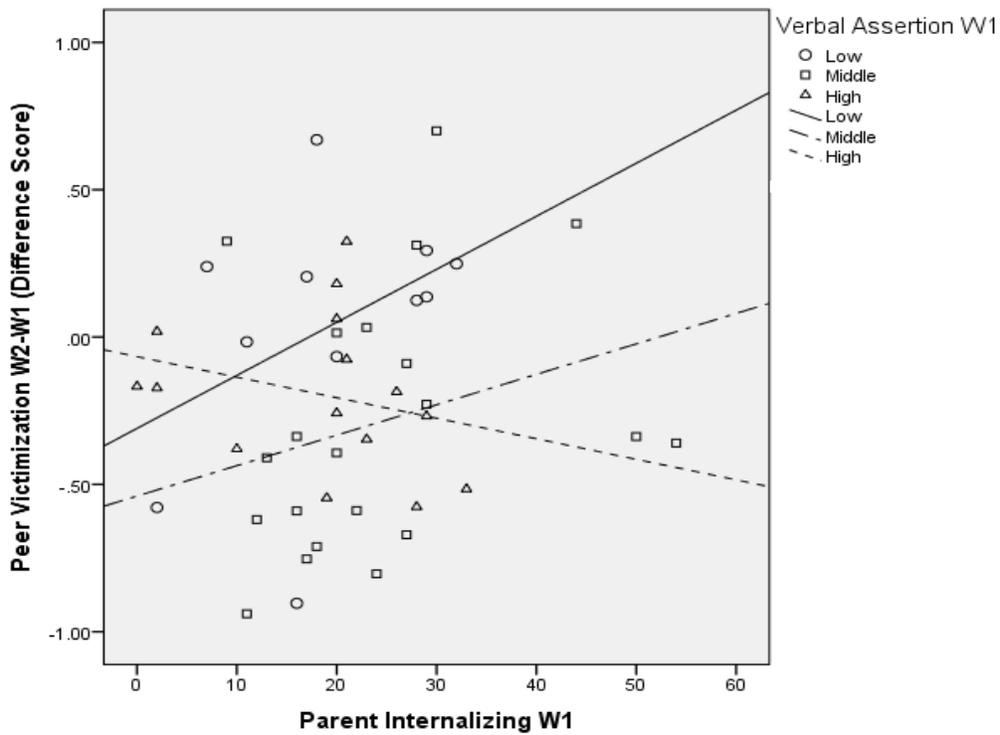


Figure 6a: Trending Interaction
Parent Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization

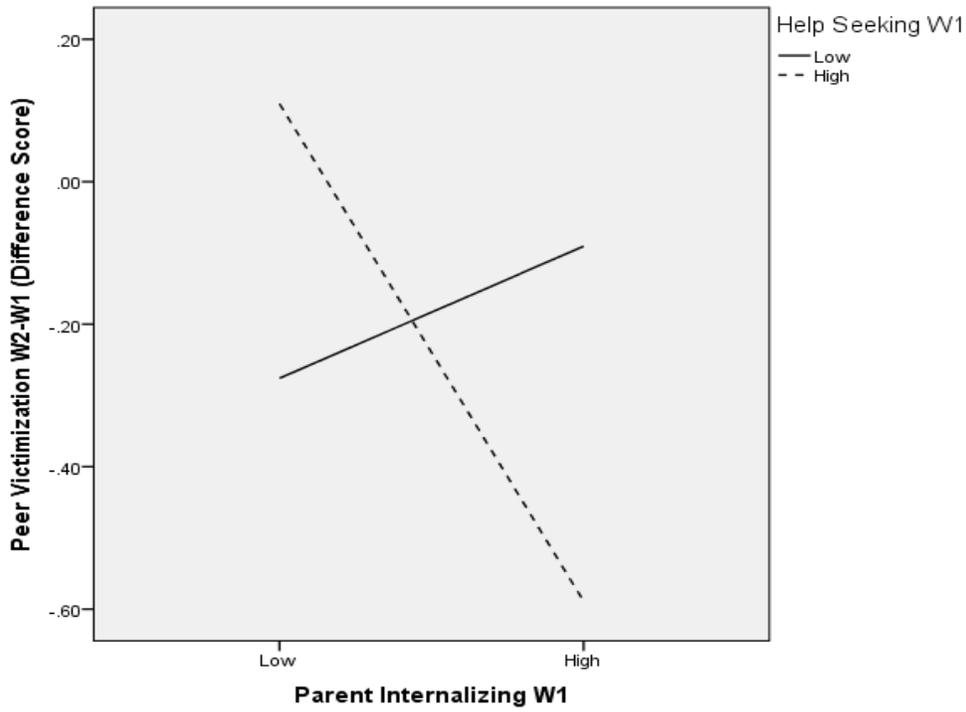


Figure 6b: Scatterplot
Parent Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization

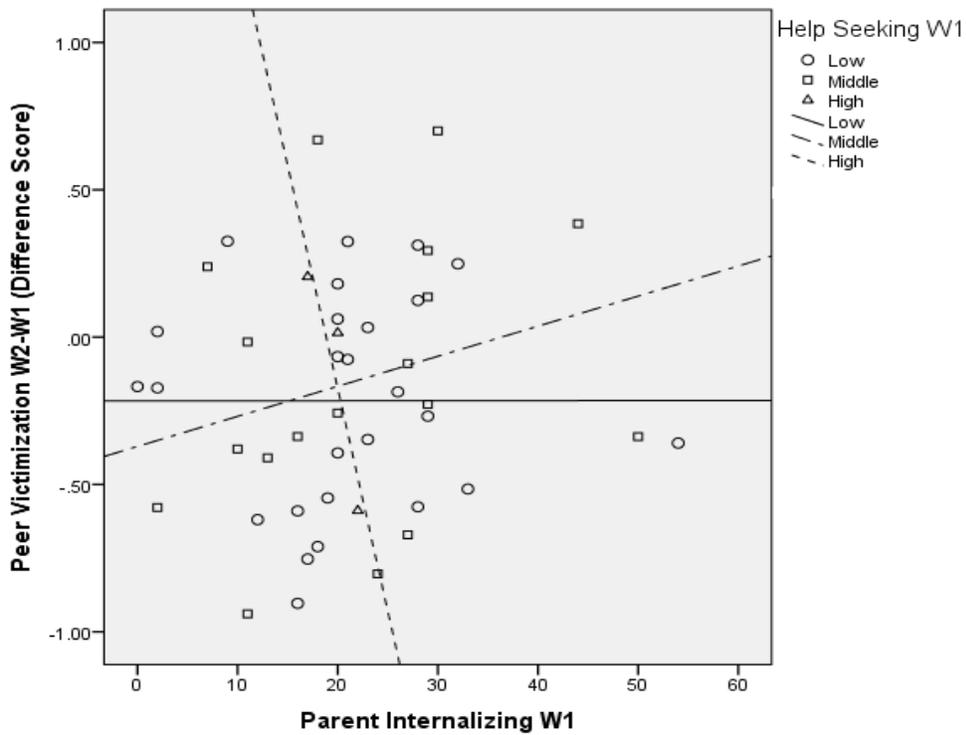


Figure 7a: Trending Interaction
Teacher Reported Externalizing Behavior x Help Seeking Predicting Peer Victimization

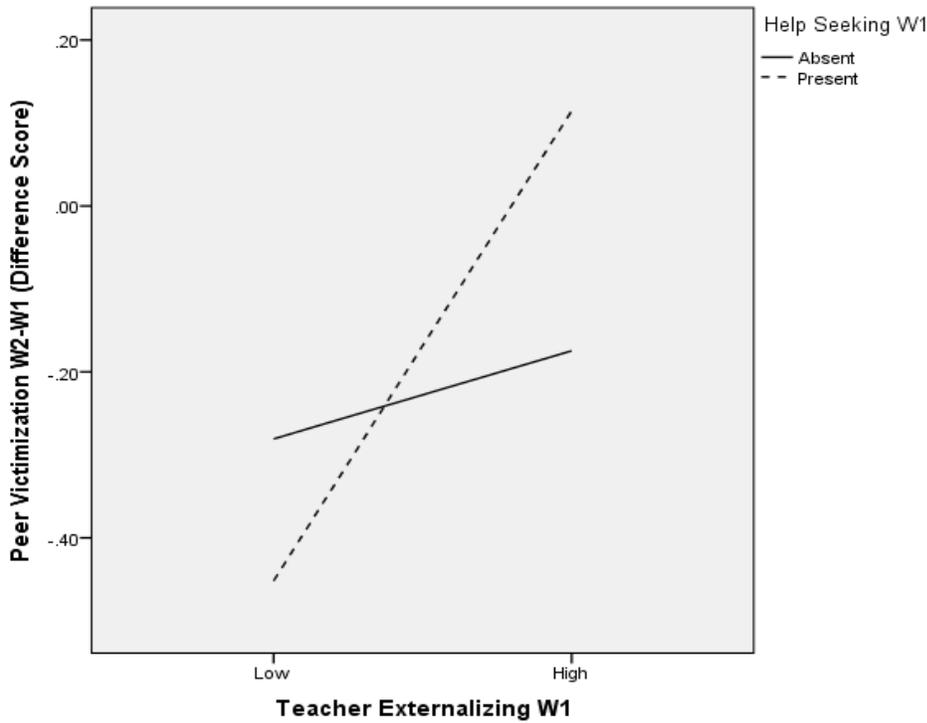


Figure 7b: Scatterplot
Teacher Reported Externalizing Behavior x Help Seeking Predicting Peer Victimization

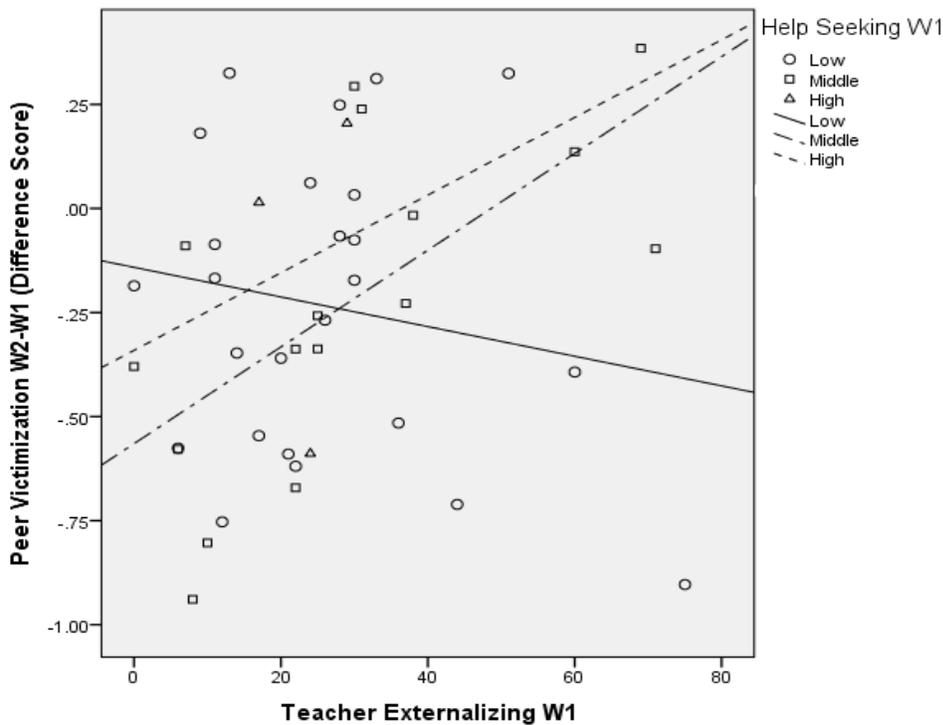


Figure 8a: Trending Interaction
Teacher Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization

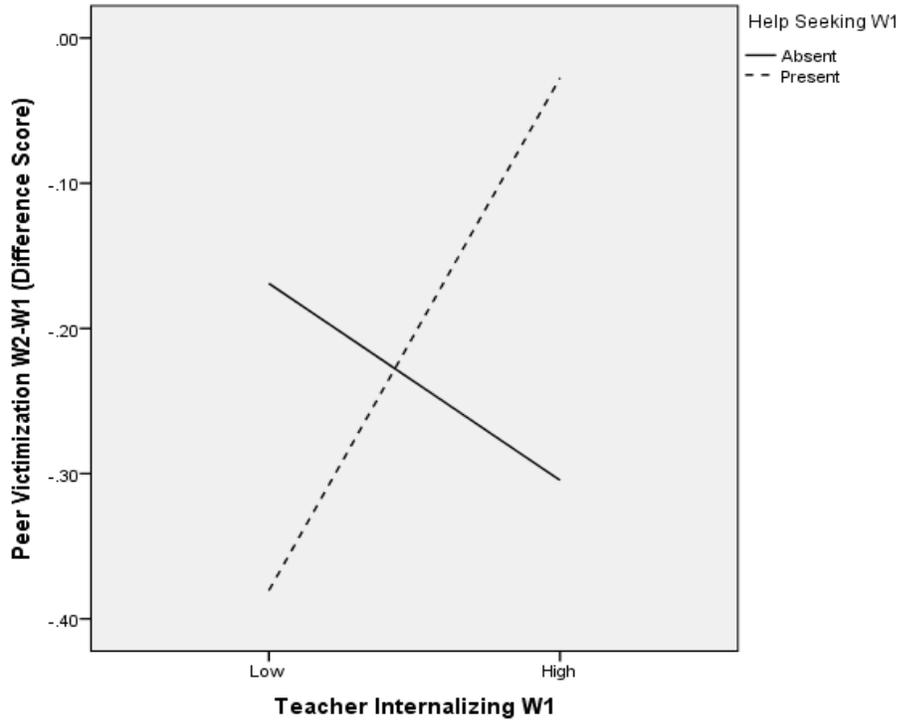


Figure 8b: Scatterplot
Teacher Reported Internalizing Behavior x Help Seeking Predicting Peer Victimization

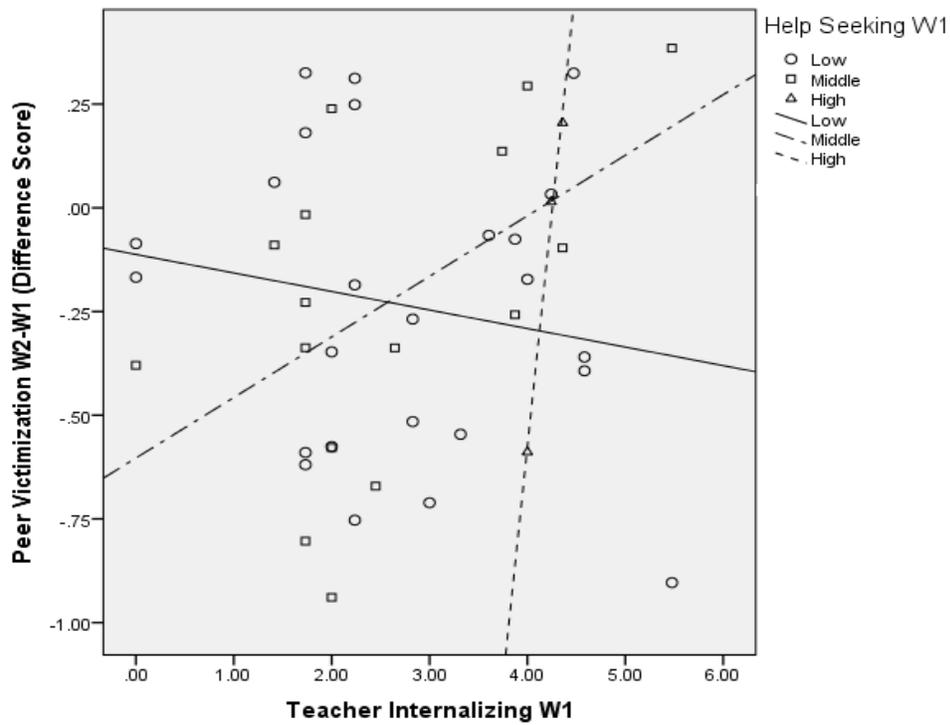
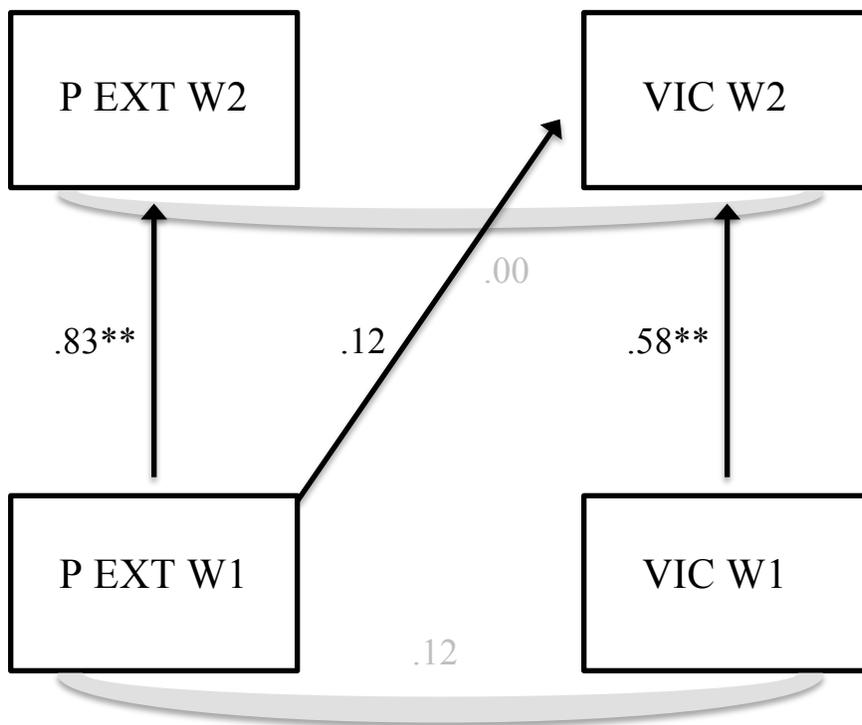


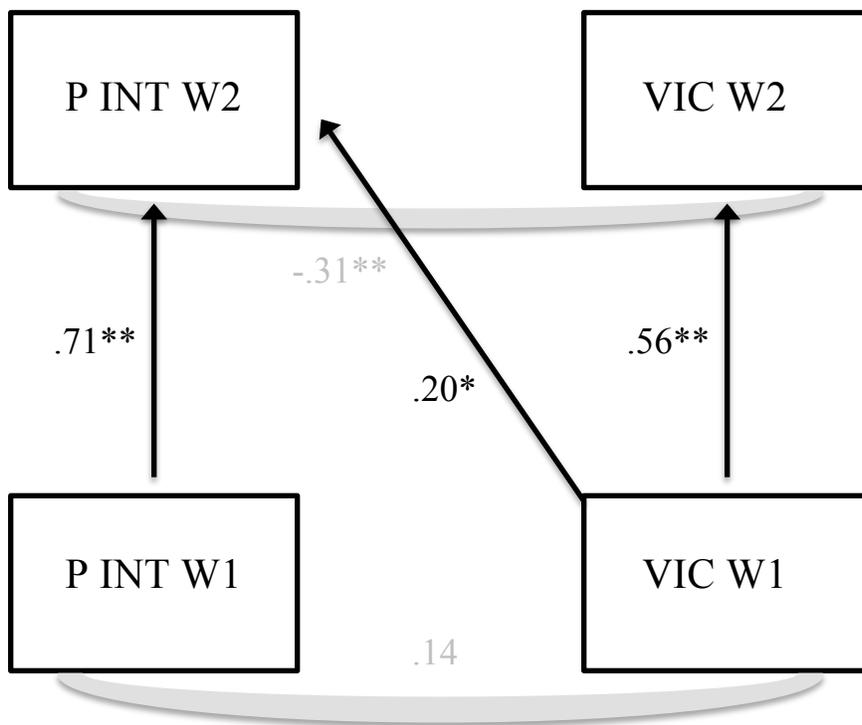
Figure A. Parent reported externalizing model



* = $p < .05$, ** = $p < .01$

P EXT = Parent reported externalizing behavior
VIC = Peer Victimization
W1 = Wave 1 (7th grade)
W2 = Wave 2 (8th grade)

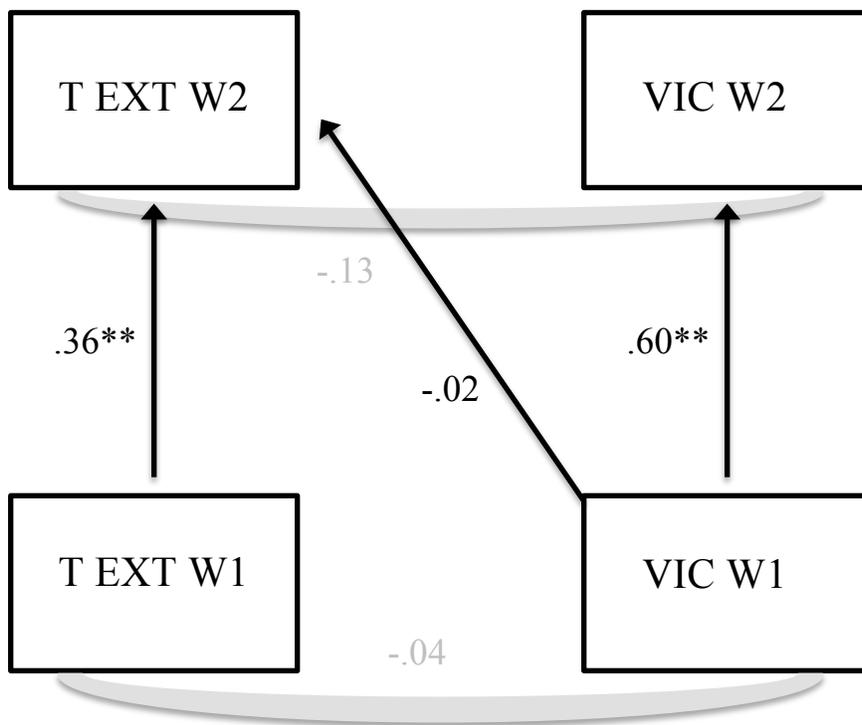
Figure B. Parent reported internalizing model



* = $p < .05$, ** = $p < .01$

P INT = Parent reported internalizing behavior
VIC = Peer Victimization
W1 = Wave 1 (7th grade)
W2 = Wave 2 (8th grade)

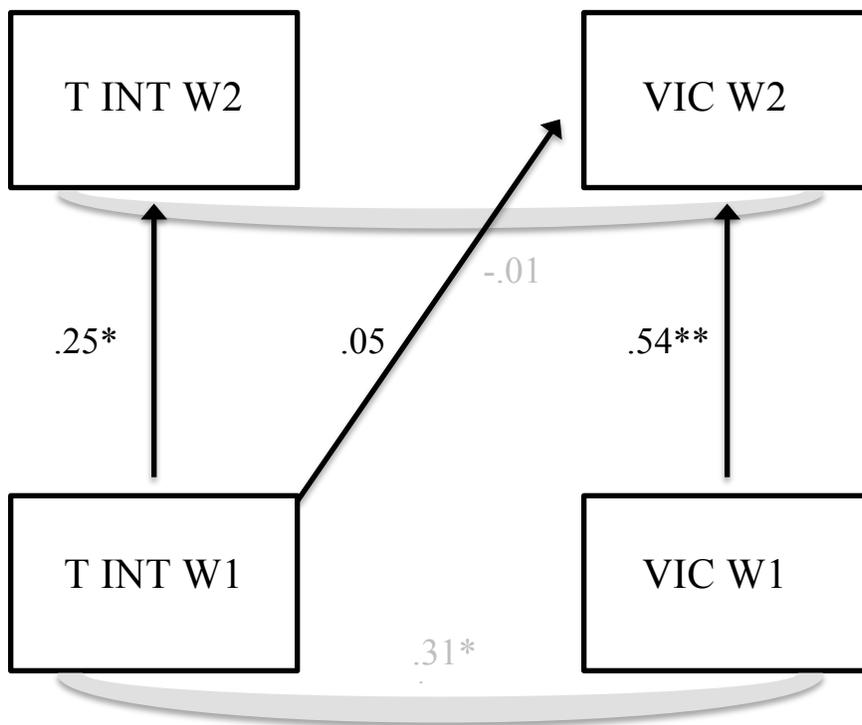
Figure C. Teacher reported externalizing model



* = $p < .05$, ** = $p < .01$

T EXT = Teacher reported externalizing behavior
VIC = Peer Victimization
W1 = Wave 1 (7th grade)
W2 = Wave 2 (8th grade)

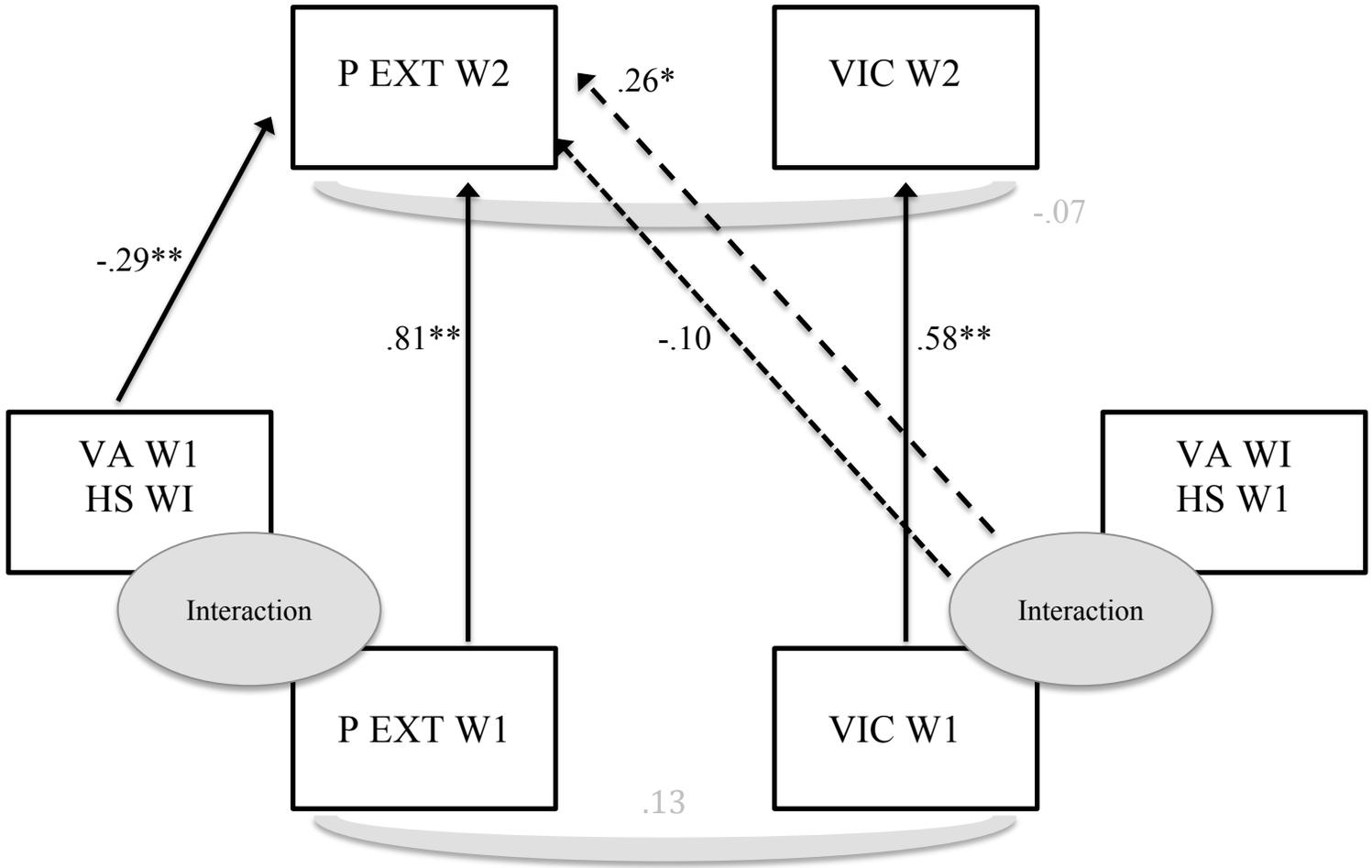
Figure D. Teacher reported internalizing model



* = $p < .05$, ** = $p < .01$

T INT = Teacher reported internalizing behavior
VIC = Peer Victimization
W1 = Wave 1 (7th grade)
W2 = Wave 2 (8th grade)

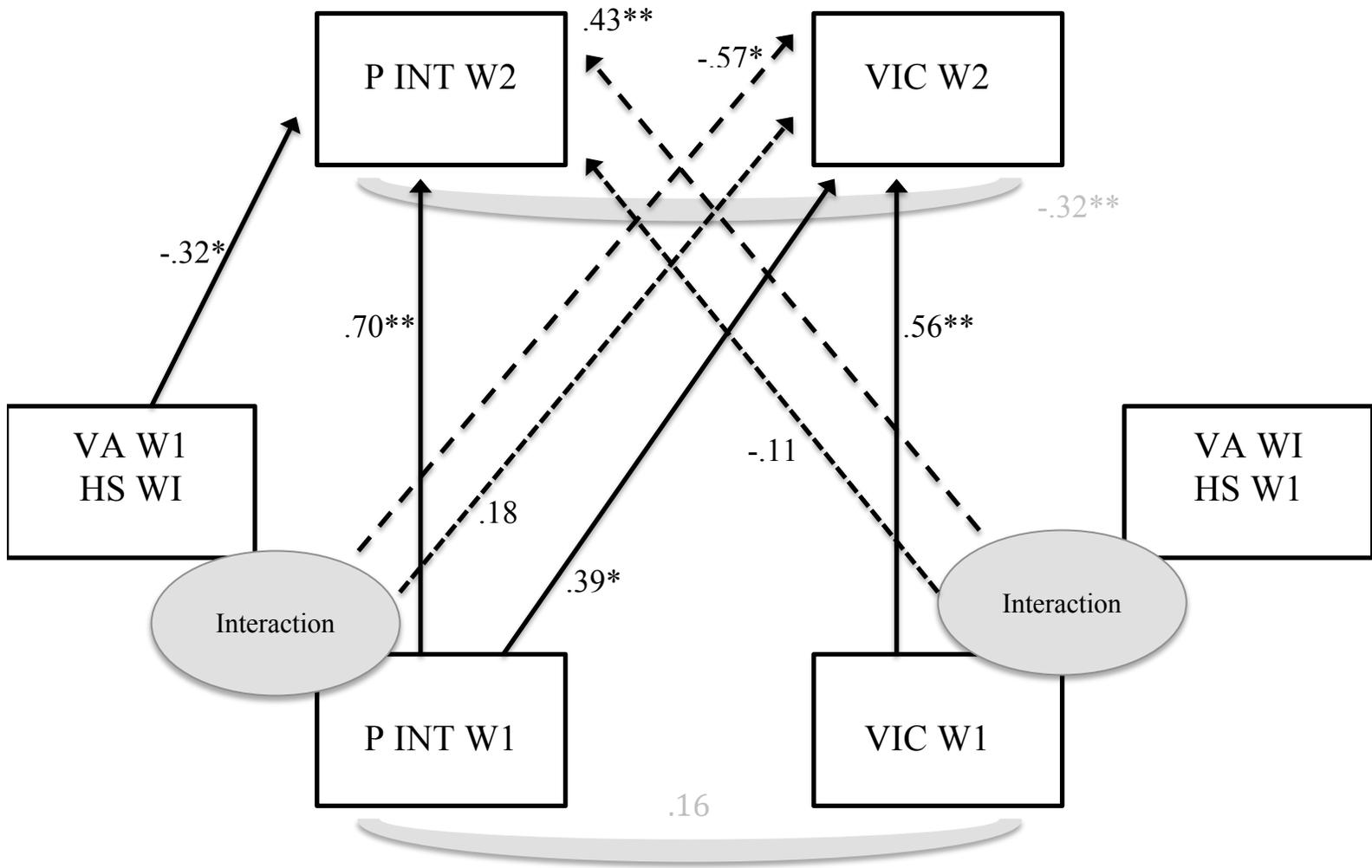
Figure E. Parent reported externalizing with moderation model



* = $p < .05$, ** = $p < .01$

P EXT = Parent reported externalizing behavior
 VIC = Peer Victimization
 VA = Verbal assertion
 HS = Help seeking
 Verbal Assertion: 
 Help Seeking: 
 W1 = Wave 1 (7th grade)
 W2 = Wave 2 (8th grade)

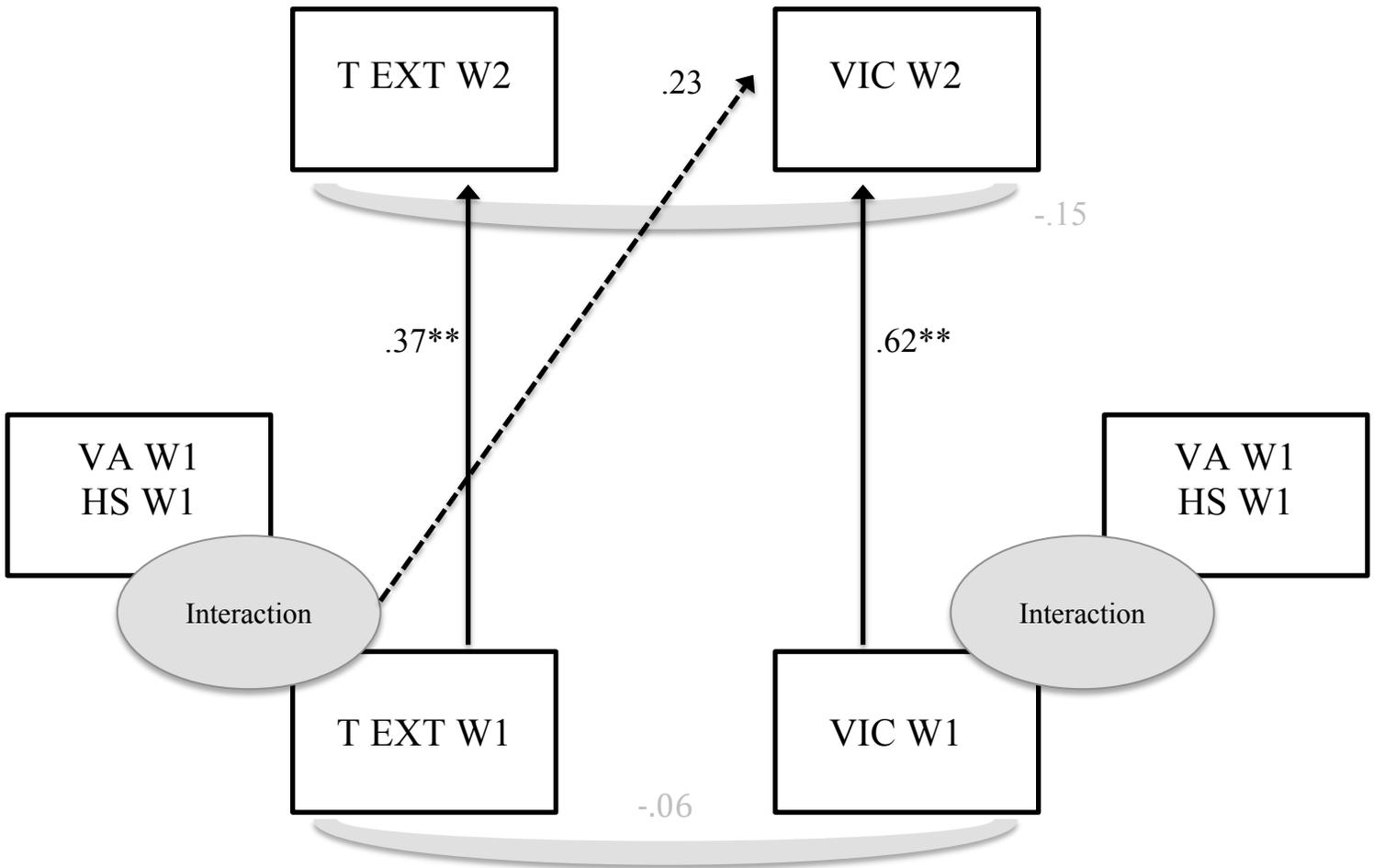
Figure F. Parent reported internalizing with moderation model



* = $p < .05$, ** = $p < .01$

P INT = Parent reported internalizing behavior
 VIC = Peer Victimization
 VA= Verbal assertion
 HS= Help seeking
 Verbal Assertion: \dashrightarrow
 Help Seeking: \dashrightarrow
 W1 = Wave 1 (7th grade)
 W2 = Wave 2 (8th grade)

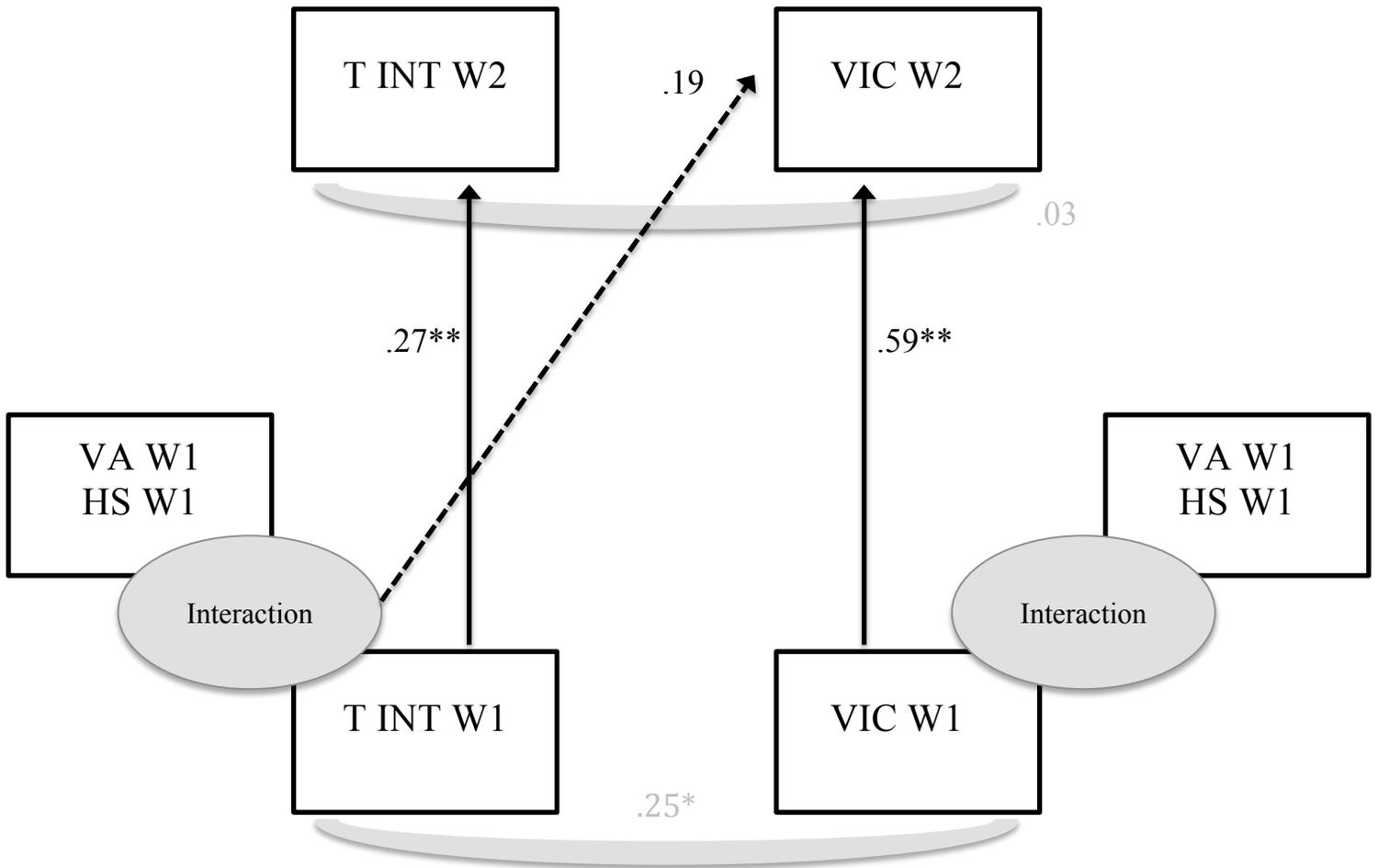
Figure G. Teacher reported externalizing with moderation model



* = $p < .05$, ** = $p < .01$

T EXT = Teacher reported externalizing behavior
 VIC = Peer Victimization
 VA= Verbal assertion
 HS= Help seeking
 Verbal Assertion:  
 Help Seeking:  
 W1 = Wave 1 (7th grade)
 W2 = Wave 2 (8th grade)

Figure H. Teacher reported internalizing with moderation model



* = $p < .05$, ** = $p < .01$

T INT = Teacher reported internalizing behavior
 VIC = Peer Victimization
 VA= Verbal assertion
 HS= Help seeking
 Verbal Assertion: \dashrightarrow
 Help Seeking: \dashrightarrow
 W1 = Wave 1 (7th grade)
 W2 = Wave 2 (8th grade)