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What is the Relationship between Adolescent Adjustment and Distress from Ostracism?

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What is the Relationship between Adolescent Adjustment and Distress from Ostracism?

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Date of Approval (print or type): April 29, 2015
HONORS THESIS ABSTRACT

Guidelines

Your abstract should begin with a definitive statement of the problem of project. Its purpose, scope and limit should be clearly delineated. Then, as concisely as possible, describe research methods and design, major findings, including the significance of the work, if appropriate, and conclusions.

Students whose thesis involves “creative” work (original, fine art, music, writing, theatre or film production, dance, etc.) should describe process and production. Indicating the forms of documentation on file as “thesis” materials.

Please have your advisor review your abstract for organization, content, grammar and spelling before submission.
AUTHOR: Taylor Nelson

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**ABSTRACT (100-200 WORDS):**

This investigation examined the relationship between adolescent adjustment and distress from ostracism. Specifically, it looked at whether peer victimization and maternal consulting about peer relationships moderate the relationship between adolescents’ overall depression and distress from ostracism. Several questions
were of interest. First, is the relationship between adolescents’ overall depression and distress from ostracism moderated by maternal consulting? It was hypothesized that higher levels of overall depression in conjunction with higher levels of consulting will be related to lower levels of distress. Second, is the relationship between adolescents overall depression in distress from ostracism moderated by victimization? It was hypothesized that higher levels of overall depression in conjunction with higher levels of victimization will be related to higher levels of distress from ostracism. Third, are these effects moderated by gender? Seventy adolescents and their mothers participated in the study. The mean age of the adolescents was 12.39 years old and 51.4% of the adolescents were girls. The participants completed several questionnaires relevant to the variables of interest. Hierarchical regression analyses were used to examine the research questions. The three hypotheses proposed were not supported; however, consulting was found to be positively correlated with both relational victimization and distress from ostracism. Additionally, depression was positively related to adolescent and mother reports of victimization. The adolescent and mother reports of victimizations were positively correlated, as well.
Introduction

This investigation will examine the relationship between ostracism and depression. Specifically, it will look at whether both peer victimization and consulting moderates the relationship between adolescents’ depression and ostracism.

Ostracism

Williams (2007a) defines ostracism as “…being ignored and excluded, and it often occurs without excessive explanation or explicit negative attention” (p. 429). Individuals who experience ostracism tend to report feeling “hurt” from the exclusion, even if the exclusion is coming from a stranger. The pain of ostracism is necessary to ensure the individual change their behavior to something more acceptable, which will further their chances of survival within a society (Williams, 2007b). Those who did not heed the pain from exclusion had higher chances of dying because those individuals were no longer receiving resources and safety provided by the group (Eisenberger, 2010a). A game, Cyberball, was developed to study the effects of ostracism in individuals exposed to it. During Cyberball, participants are informed that they will be playing a game of catch with two other participants on the internet; however, the computer controls the other two participants. In the beginning of the game, every participant receives the ball a few times. As the game continues on, the real participant will be excluded from the game of catch (Williams, 2007a). Since more importance is given to peer relationships as adolescents age, social acceptance becomes increasingly
important, as well; therefore, ostracism is an issue that adolescents may be particularly affected by (Masten et al., 2011).

When studying the brain of those experiencing ostracism during Cyberball, several differences in the brain and body can be noted. One occurrence is increased activation of the dorsal anterior cingulate cortex (dACC). This area of the brain is also activated when an individual is enduring physical pain. The activation of the dACC during exclusion reveals that social pain may be associated with physical pain. The activation of the dACC is also associated with higher levels of distress (Eisenberger, 2010a; Williams, 2007a). Additionally, the dACC is activated when individuals are shown images of their deceased loved ones or past significant others, which provides more support that the dACC is associated with social pain (Eisenberger, 2010b). The right ventral prefrontal cortex (RVPFC) is another active area during exclusion in Cyberball. This area is involved in regulating physical pain. As opposed to the dACC, the RVPFC is associated with lower levels of distress, which may suggest that it helps lessen activation of dACC (Eisenberger, 2010a). There is also increased activity of the amygdala, periaqueductal grey areas, and cortisol. Moreover, individuals have temporarily increased blood pressure in response to being ostracized, which is associated with the body preparing itself for a threat (Williams, 2007a).

In addition to physical responses, there are mental effects of ostracism, such as depressive symptoms. Williams (2007a) found that females who have high rejection sensitivity may be more predisposed for depressive symptoms. During the adolescent years, both peer rejection and peer conflict are associated
with depression and socially isolating oneself. When exposed to a situation in which the adolescent is being socially excluded, there is an increase in activity of the subgenual anterior cingulate (subACC). More activity in the subACC is associated with the risk of developing the symptoms. In addition to the subACC, there is increased activity in several areas (dorsomedial prefrontal cortex, posterior cingulate cortex, and precuneus) during social exclusion. These areas, which are also known to be active while individuals are thinking of others’ and their perspectives, are associated with increased depressive symptoms. This may be from the adolescents thinking, and perhaps ruminating, about why they were rejected (Masten et al., 2011). Rejected participants during a game of Cyberball felt their life was less meaningful than those who were not rejected. Similarly, lonely people found life more meaningless. With this information, it is no surprise that depression was found to be negatively correlated with meaning in life (Stillman et al., 2009). Long-term ostracism has been shown to have detrimental effects on individuals. Those individuals tended to accept their isolation, have a sense of low self-worth, and experience helplessness and depression (Williams, 2007a). Additionally, they report high levels of suicidal thoughts and attempts (Williams, 2007b).

When individuals are exposed to physical pain, social support can make it less severe. This may be because those who have social support tend to perceive events as less stressful. This is explained by the amygdala, the dorsal anterior cingulate cortex (dACC), and insula, areas usually associated with processing stressful situations, being less active during a threatening situation.
when there is social support present (Eisenberger, 2010b). Since there is evidence for the perception of physical pain being similar to the perception of social pain, social support may help social pain, as well. Teng and Chen (2012) found that the effects of ostracism were buffered by social support, but only if the individual had a high self-esteem.

**Consulting**

One source of social support in adolescents may come from parents in the form of consulting. *Consulting* occurs when parents are actively involved in providing their children with solutions to social problems. High levels of consulting are associated with higher peer acceptance, better social skills, and more positive friendship quality (Mounts, 2011). Consulting may assist an adolescent who is struggling with the effects of exclusion, particularly depressive symptoms. In the current investigation, mothers’ consulting will be examined as a moderator of the relationship between depression and distress from ostracism.

**Victimization**

Although consulting is hypothesized to lessen the effects of ostracism, peer victimization may worsen the effects. Peer victimization is actions, carried out by peers, which are intended to harm an individual, either physically or psychologically. There are two types of peer victimization: physical and relational. Physical victimization occurs when an adolescent is “…the target of actual or threatened physical harm” (Taylor, Sullivan, & Kliewer, 2013, p. 179). This can be observed through bullying behaviors, such as an adolescent being pushed down by a peer. Relational victimization “…involves being the target of behaviors (e.g.,
spreading rumors and gossip) that are intended to damage youths’ relationships and standing with peers” (Taylor et al., 2013, p. 179). Studies conducted have suggested that although boys and girls are struggling with both physical and relational victimization, boys are more likely to experience physical victimization, whereas girls more commonly report relational victimization (Turner, Exum, Brame, & Holt, 2013; Crick & Nelson, 2002; Lester, Cross, Dooley, & Shaw, 2013). Several studies have established that peer victimization is strongly associated with depression (Turner et al., 2013; Lester et al., 2013; Taylor et al., 2013) and may have lasting effects on adolescents (Isaacs, Hodges, & Salmivalli., 2008), sometimes two years after the victimization occurred (Benjet, Thompson, & Gotlib, 2010). Girls who experience victimization tend to have significantly more depressive symptoms than boys, despite boys reporting higher levels of victimization (Turner et al., 2013). This may suggest that girls are more psychologically affected by victimization or are more susceptible to depression, perhaps from “having two short alleles in the promoter region of serotonin transporter gene” (Benjet et al., 2010, pg. 175). Victimization may worsen the effects of ostracism by increasing the possibility of depressive symptoms occurring.

**Current investigation**

Several questions were examined in this investigation. First, are mothers’ and adolescents’ reports of victimization related? Next, is consulting related to other variables of interest in the study? Is depression related to victimization?
Additionally, is the relationship between adolescents’ overall depression and distress from ostracism moderated by maternal consulting? It was hypothesized that higher levels of overall depression in conjunction with higher levels of consulting will be related to lower levels of distress from ostracism than higher levels of overall depression in conjunction with lower levels of consulting.

Another research question examined: is the relationship between adolescents’ overall depression and distress from ostracism moderated by victimization? It was hypothesized that higher levels of overall depression in conjunction with higher levels of victimization will be related to higher levels of distress from ostracism, as opposed to higher levels of overall depression with lower levels of victimization. Furthermore, is this moderated by gender? One hypothesis was that boys will experience higher levels of depression when exposed to physical victimization than girls would. It was also hypothesized that girls will experience higher levels of depression when exposed to relational victimization than boys would.

**Method**

**Participants**

Seventy adolescents and their mothers participated in the study. The mean age of the adolescents was 12.39 years old and 51.4% of the adolescents were girls and 48.6% were boys. The sample was ethnically diverse- 25.7% of participants were African American, 2.9% were Asian or Asian-American, 15.7% were Hispanic/Latino/a, 54.3% were White/Caucasian or European, and 1.4% identified as other.
Procedure

Participants were recruited through flyers that were distributed to local middle schools. After contacting the lab, the study was explained to the participants. After coming into the lab, written assent/consent was acquired from both the child and the mother. The participants then completed questionnaires. After that, the participants were videotaped while talking about their conflicts in peer relationships and discussing hypothetical situations involving peers. Next, the participants were individually interviewed to discuss the videos. The adolescents then played a game of catch with a virtual peer on the computer (Cyberball). After that task, the adolescents self-reported on their feelings of distress during the game. Then, the adolescents and mothers completed more questionnaires. Debriefing about the Cyberball game occurred after that. The dyads received $50 for participating in the study. Only questionnaire data was used in the current analyses.

Measures

Depression. The first scale is the Children’s Depression Inventory (CDI). This was used to assess the adolescents’ levels of depression. There were 12 items. In this questionnaire, adolescents are asked to select a sentence out of a group of three that best describes them within the last two weeks. An example of a group of options is: “I am sad once in awhile, I am sad many times, I am sad all the time”. Cronbach’s alpha = .82.

Distress from ostracism. Adolescents completed three 10-item “Goals and feelings during Cyberball” assessments, one after each exclusion trial of
Cyberball. During Cyberball, the adolescents are told they are playing virtual catch with two other real children; however, the computer controls the other children. During this game of catch, the adolescents are excluded from the game. The first trial assessment had a Cronbach’s alpha of .85. The second trial assessment had a Cronbach’s alpha of .84. Similar to the first trial assessment, the third trial assessment had a Cronbach’s alpha of .85. A sample question is “I felt like the other kids didn’t like me”. Response options ranged from 1 = Not at all to 4 = A lot. The mean scores of the individual trials’ time points were calculated and then the three times points were summed.

**Victimization.** To assess victimization, both the adolescents and mothers completed the Child Social Experiences Questionnaire (CSEQ). Within CSEQ, there are two scales of interest: Physical Victimization and Relational Victimization. Both scales, for the adolescent and the mother, consisted of five questions each. The Physical Victimization scale had a Cronbach’s alpha of .81 for the adolescent, while the Physical Victimization scale had a Cronbach’s alpha of .82 for the mother. An example question is “How often do you get hit by another peer at school?” The Cronbach’s alpha for Relational Victimization for the adolescent was .75, and .86 for the mother. An example question of this is “How often does a peer spread rumors or gossip about you to make others not like you anymore?” The response options for both subscales ranged from 1= Never to 5 = All the time. The mean scores for physical and relational victimization were used in the analyses.
Consulting. The Parental Management of Peers Inventory (PMPI) was used to study the levels of consulting in regards to peer relationships. Only the adolescents’ reports were used in the analyses. Ten items were used to assess consulting. The Cronbach’s alpha was .89. An example question is “When I’m having a problem with a friend I can ask my parent for help in solving it”. Response options ranged from 1 = Strongly disagree to 4 = Strongly disagree. The mean score on consulting was used in the analyses.

Results

Relation between mothers’ and adolescents’ reports of victimization

The relationship between mothers’ and adolescents’ reports of victimization was assessed through correlations. As shown in Table 1 there was a significant correlation between mothers’ reports and adolescents’ reports of physical victimization, \( r = .54 \), \( p < .001 \). Higher levels of physical victimization as reported by mothers were related to higher levels of physical victimization as reported by adolescents. Similarly, there was a significant correlation between mothers’ report and adolescents’ report of relational victimization, \( r = .35 \), \( p = .003 \). Higher levels of relational victimization as reported by mothers were related to higher levels of relational victimization as reported by adolescents. There was a significant association between mothers’ report of physical victimization and adolescents’ reports of relational victimization, \( r = .34 \), \( p = .004 \). This suggests that higher levels of physical victimization as reported by mothers were related to higher levels of relational victimization as reported by adolescents. Finally, there was a significant positive correlation between mothers’ report of relational
victimization and adolescents’ report of physical victimization, $r = .35, p = .003$. This suggests that higher levels of relational victimization as reported by mothers were related to higher levels of physical victimization as reported by adolescents. A t-test was run to examine the differences between mothers’ and adolescents’ reports of victimization. There were no significant differences between mothers’ report ($M = 1.50$) and adolescents’ report ($M = 1.52$) of physical victimization, $t (68) = .35, p = .73$. Relational victimization reports between mothers’ reports (1.79) and adolescents’ reports (1.70) also had no significant differences, $t (68) = -.95, p = .34$. These results are pictured in Figure 1.

**Relation between consulting and other variables**

Correlations were again used to assess how consulting was related to the other variables of interest. These correlations are shown in Table 2. Consulting was significantly correlated with relational victimization ($r = .29, p = .022$) and distress from ostracism ($r = .30, p = .019$). This suggests that higher levels of consulting are related to higher levels of relational victimization. Similarly, higher levels of consulting as related to higher levels of distress from ostracism. However, consulting was not significantly correlated with the other variables of interest: physical victimization ($r = .21, p = ns$), depression ($r = .11, p = ns$), parent reports of physical victimization ($r = -.00, p = ns$), and parent reports of relational victimization ($r = .15, p = ns$).

**Relation between depression and victimization**

Next, the relation between depression and victimization was examined, which can be referenced in Table 3. Depression was significantly correlated to
four of the five variables in the study: physical victimization ($r = .40, p = .001$), relational victimization ($r = .43, p < .001$), parent reports of physical victimization ($r = .43, p < .001$), and parent reports of relational victimization ($r = .26, p = .034$). Higher levels of depression were related to higher levels of adolescents’ and mothers’ physical victimization and higher adolescents’ and mothers’ reports of relational victimization. Depression was not significantly correlated with distress from ostracism ($r = .22, p = ns$).

**Is the relationship between adolescents’ overall depression and distress from ostracism moderated by maternal consulting?**

Subsequently, the relationship between adolescents’ overall depression and distress from ostracism, as moderated by maternal consulting was examined through a hierarchical regression. In this regression, sex was not significant, $B = -.85, p = ns$, age was not significant, $B = .75, p = ns$, depression was not significant, $B = .64, p = ns$, consulting was significant, $B = .31, p = .022$, and the interaction between depression and consulting was not significant, $B = -.03, p = ns$. These interactions are shown in Table 4.

**Is the relationship between adolescents’ overall depression and distress from ostracism moderated by victimization?**

Two hierarchical regressions were run to examine the relationship between adolescents’ overall depression and distress from ostracism, as moderated by victimization, as shown in Tables 5 and 6. In the first regression examining depression, distress from ostracism, and physical victimization, sex was not significant, $B = -.80, p = ns$, age was not significant, $B = .57, p = ns$, 

depression was not significant, $B = .53, p = ns$, physical victimization was not significant, $B = .37, p = ns$, and the interaction between depression and physical victimization was not significant, $B = -.34, p = ns$.

In the regression examining depression, distress from ostracism, and relational victimization, sex was not significant, $B = -.80, p = ns$, age was not significant, $B = .57, p = ns$, depression was not significant, $B = .40, p = ns$, relational victimization was not significant, $B = 1.25, p = ns$, and the interaction between depression and relational victimization was not significant, $B = -.63, p = ns$.

**Gender as a moderator**

The hypothesis regarding boys experiencing more depression when exposed to higher levels of physical victimization than girls would was not statistically significant. Although higher levels of depression was related to higher levels of physical victimization, there were no differences for girls and boys. The regression, reported in Table 7, shows that sex was not significant, $B = -.81, p = ns$, age was not significant, $B = .16, p = ns$, physical victimization was significant, $B = 1.30, p = .18$, and the interaction between depression, gender, and physical victimization was not significant, $B = -.11, p = ns$.

The results for the regression reveal that gender also did not moderate the effects of depression on girls, rather than boys, experiencing victimization. Relational victimization was associated with depression, but again, there were no statistical differences for girls and boys. In the regression (Table 8), sex was not significant, $B = -.81, p = ns$, age was not significant, $B = .16, p = ns$, relational
victimization was significant, $B = 1.23$, $p < .001$, and the interaction between depression, gender, and relational victimization was not significant, $B = -.63$, $p = \text{ns}$.

**Discussion**

The results revealed that mother and adolescent reports of victimization are significantly correlated with one another. Adolescents’ reports of physical victimization are associated with mothers’ report of relational victimization, it may suggest that there is a link between physical victimization and relational victimization. Perhaps the victims of one type are susceptible to the other type, as well. Since the t-tests reveal that the mother and adolescent reports of victimization are fairly close to one another and mothers’ and adolescents’ reports of victimization are significantly correlated, it may suggest that parents are aware of the conflicts in their adolescents' lives and/or the adolescents are communicating with their mothers about these issues. This may shed light on the interactions occurring between mothers’ and their children.

Consulting was found to be positively correlated with adolescents’ reports of relational victimization and distress from ostracism. This could be for two possible reasons. One reason may be that the mother is aware of the adolescent’s higher levels of depression and responds by increasing consulting with her child. Another reason could be is that perhaps the mother initially has high levels of consulting and this has an adverse effect on the child, increasing levels of depression. Given that these are adolescents, a high level of consulting might undermine adolescents’ feelings of autonomy, which may then contribute
to feelings of depression. However, since the data were cross-sectional data, it is impossible to determine the temporal ordering from this study alone. While either option is possible, consulting has been associated with positive features in the past (Mounts, 2011), which would suggest that perhaps the former reason stated is the more likely explanation.

As suggested by several studies, depression was found to be correlated with adolescents’ reports of physical and relational victimization, as well as the mothers’ reports of both types of victimization. The correlation between depression and victimization is supported by research in several other studies (Turner et al., 2013; Lester et al., 2013; Taylor et al., 2013). However, it was surprising that depression was not associated with distress from ostracism because the literature would suggest depression is positively correlated with distress from ostracism (Masten et al., 2011; Williams, 2007a; Williams, 2007b).

The first hypothesis proposed was not supported. Originally, it had been assumed that higher levels of overall depression in conjunction with higher levels of consulting would be related to lower levels of distress from ostracism than higher levels of overall depression in conjunction with lower levels of depression. However, there was no significant interaction between depression, consulting, and distress from ostracism, which suggests that consulting does not moderate these variables. Although Teng and Chen (2012) found that social support alleviates the negative effects of depression, there may be an important difference between social support from friends and social support from mothers via consulting. Additionally, the results suggest that higher levels of consulting
are related to higher levels of depression, which directly contradicts the hypothesis. Similarly to the correlations found between consulting and other variables within the study, this finding may be due to the mother being more aware of the higher levels of depression, which causes her to consulting her child more. Another reason could be that the mother’s high levels of consulting and negatively affects the child and increases the levels of depression. Again, the cross-sectional data makes it difficult to determine the ordering.

Likewise, there was no statistical support for the second hypothesis. It was assumed that the higher levels of overall depression in conjunction with higher levels of victimization would be related to higher levels of distress from ostracism. The data suggests that this effect is not occurring because the interaction between distress from cyberball, depression, and physical victimization was not significant. The same was true of distress from cyberball, depression, and relational victimization. These results are surprising because of previous literature finding strong associations between depression and victimization (Turner et al., 2013; Lester et al., 2013; Taylor et al., 2013) and depression and ostracism (Masten et al., 2011; Stillman et al., 2009; Williams, 2007a; Williams, 2007b). From viewing that literature, one would have assumed that victimization as a moderator, would have adversely affected distress from ostracism.

Additionally, I had hypothesized that boys more so than girls would experience higher rates of depression when exposed to higher rates of physical victimization and that more girls than boys would have higher depression rates in conjunction with higher rates of relational victimization. However, this was false.
Depression and victimization were not moderated by gender. There were no gender differences for the types of victimization. This is somewhat surprising because the literature would suggest that there are some gender differences when examining victimization (Turner, et al., 2013).

One limitation of the study is that it is cross-sectional. This restricts the conclusions one can make about the data because it is not possible to determine causal effects. Additionally, the sample size of the participants is small, with only seventy adolescents and their mothers. This may mean that the sample does not necessarily generalize to the entire population. Finally, the questionnaires given allow self-report, which may allow participants to skew answers to make themselves look better or to given answers the participants believe the researchers want. Future studies should examine the differences between social support and support from a mother consulting. Additionally, studies should look at the positive correlations between consulting and relational victimization, and consulting and distress from ostracism to determine which variable is influencing the association.
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Table 1

*Correlations between mothers’ and adolescents’ reports of physical and relational victimization. All the variables are significantly positively correlated with each other*

<table>
<thead>
<tr>
<th></th>
<th>Physical Victimization (Adolescents’ Report)</th>
<th>Relational Victimization (Adolescents’ Report)</th>
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</thead>
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<tr>
<td>Physical Victimization</td>
<td>.54**</td>
<td>.34**</td>
</tr>
<tr>
<td>(Mothers’ Report)</td>
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<td></td>
</tr>
<tr>
<td>Relational Victimization</td>
<td>.35**</td>
<td>.35**</td>
</tr>
<tr>
<td>(Mothers’ Report)</td>
<td></td>
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</tr>
</tbody>
</table>
Means of parent and adolescent victimization reports. There were no statistically significant differences.
Table 2

Correlations between consulting and other variables. Consulting is positively correlated to relational victimization and distress from ostracism. The correlations were not statistically significant with all other variables.

<table>
<thead>
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<td>Physical Victimization</td>
<td>.21</td>
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<tr>
<td>Relational Victimization</td>
<td>.29*</td>
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<td>Parent Reports of Physical Victimization</td>
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<tr>
<td>Parent Reports of Relational Victimization</td>
<td>.15</td>
</tr>
<tr>
<td>Distress from Ostracism</td>
<td>.30*</td>
</tr>
</tbody>
</table>
Table 3

Correlations between depression and other variables. Depression was positively correlated to physical victimization, relational victimization, parent reports of physical victimization, and parent reports of relational victimization. Depression was not statistically significant with distress from ostracism.

<table>
<thead>
<tr>
<th>Depression and Other Variables</th>
<th>Depression</th>
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<td>Physical Victimization</td>
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<tr>
<td>Relational Victimization</td>
<td>.43**</td>
</tr>
<tr>
<td>Parent Reports of Physical Victimization</td>
<td>.43**</td>
</tr>
<tr>
<td>Parent Reports of Relational Victimization</td>
<td>.26*</td>
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<td>Distress from Ostracism</td>
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</tr>
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Table 4

Regression (unstandardized regression coefficients) of CDI, consult, and interactions on adolescents’ reports of distress from ostracism

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<th>Predictor</th>
<th>B</th>
<th>(\Delta R^2)</th>
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<td>Sex</td>
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<td><strong>Step 2</strong></td>
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<tr>
<td>CDI</td>
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<td></td>
</tr>
<tr>
<td>Consulting</td>
<td>.31*</td>
<td>.13*</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
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<td></td>
</tr>
<tr>
<td>CDI x Consulting</td>
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<td>.00</td>
</tr>
</tbody>
</table>

*\(p < .05\)*
Table 5

*Regression (unstandardized regression coefficients) of CDI, adolescents’ reports of physical victimization, and interactions on adolescents’ reports of distress from ostracism*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<td>Age</td>
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<td>Sex</td>
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<td><strong>Step 2</strong></td>
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<td><strong>Step 3</strong></td>
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<tr>
<td>CDI x Physical Victimization</td>
<td>-.34</td>
<td>.01</td>
</tr>
</tbody>
</table>
Table 6

Regression (unstandardized regression coefficients) of CDI, adolescents’ reports of relational victimization, and interactions on adolescents’ reports of distress from ostracism

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.80</td>
<td>.03</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>Relational Victimization</td>
<td>1.25</td>
<td>.05</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI x Relational Victimization</td>
<td>-.63</td>
<td>.03</td>
</tr>
</tbody>
</table>
Table 7

*Regression (unstandardized regression coefficients) of gender, physical victimization, and interactions of those variables on adolescents’ reports of depression.*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Depression B</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.81</td>
<td>.05</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Victimization</td>
<td>1.30*</td>
<td>.18*</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Victimization x Gender</td>
<td>-.11</td>
<td>.00</td>
</tr>
</tbody>
</table>

*p < .05*
Table 8

Regression (unstandardized regression coefficients) of gender, relational victimization, and interactions of those variables on adolescents’ reports of depression.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Depression</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.81</td>
<td>.05</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational Victimization</td>
<td>1.23*</td>
<td>.17*</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational Victimization x Gender</td>
<td>-.63</td>
<td>.01</td>
</tr>
</tbody>
</table>