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A Glimmer of Hope? Assessing Hope as a Moderator of the Relationship Between  
Parenting and Adolescent Depressive Symptoms

Lisa D. Bishop

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

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## ABSTRACT

### A Glimmer of Hope? Assessing Hope as a Moderator of the Relationship Between Parenting and Adolescent Depressive Symptoms

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Prior research has established that a portion of depressive symptoms in adolescents is predicted by parenting behaviors. The purpose of this study was to identify the moderating role of hope on the relationship between two parenting variables (warmth and psychological control) and adolescent depressive symptoms. Participants included 459 adolescents ages 13 to 14 years and their families from waves 3 and 4 of the *Flourishing Families Project*. Path analysis was utilized to answer the proposed hypotheses and research questions. Multiple group analysis was utilized to determine if results were different for boys and girls. Significant results indicated that in low-hope girls, depressive symptoms increased as maternal warmth increased but decreased as paternal warmth increased. Mother's psychological control had a minimal effect on child's depressive symptoms in high-hope children. Father's psychological control predicted an increase in depressive symptoms in high-hope children. Findings suggest that father's warmth is particularly important for low-hope girls, maternal warmth may have inadvertent negative effects among low-hope girls, and paternal psychological control is of notable concern for high-hope children. These parenting behaviors as well as hope and depressive symptoms should be assessed for and addressed in clinical practice with parents and adolescent children.

Key Words: adolescent depressive symptoms, hope, parenting, psychological control, warmth

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## **Introduction**

Depression is a serious problem in adolescence (Birmaher et al., 1996; Costello, Erkanli & Angold, 2006; Haarasilta, Marttunen, Kaprio & Aro, 2001), one that demands our attention and best efforts to alleviate. Because parenting has been linked to depressive symptoms in adolescents (McLeod, Weisz, & Wood, 2007), for the most part in cross-sectional studies, this study will look at longitudinal data gathered from a community sample to determine whether parental warmth and parental psychological control are in effect predictive of depressive symptoms. I will specifically focus on whether hope moderates these relationships, something that has not been studied to date. This study is also unique in that it will look separately at mothers, fathers, sons, and daughters in dyadic combinations to determine where relationships are similar and where they differ due to the gender of the parent or child.

## **Literature Review**

### **Depressive Symptoms**

There are many negative outcomes associated with depressive symptoms during the crucial formative years of adolescence that are concerning since they can have a major effect on the rest of the individual's life. For instance, gaining an education is one major task of adolescence, and young people with depressive symptoms often underperform academically (Fröjd et al., 2008). Similarly, Humensky et al. (2010) found that depressive symptoms interfered with students' subjective measures of school performance as well, including homework completion, concentration in class, attending class, and interacting with peers.

Another concern regarding depressive symptoms in adolescence is self-destructive behaviors. An increase in substance abuse has been found amongst youth with depressive

symptoms (Birmaher et al., 1996; Greenbaum, Prange, Friedman, & Silver, 1991; Chen, Anthony, & Crum, 1999). Chen and colleagues (1999) found that alcohol-related problems are more likely in youth with depressive symptoms and often begin at an earlier age. Suicide ideation and behavior is another major concern with adolescents who have depressive symptoms (Galaif, Sussman, Necomb, & Locke, 2007). According to Asarnow (1992), suicidal children between the ages of 6 years and 13 years reported higher levels of depressive symptoms than non-suicidal children. In a study by Chérif et al. (2012), suicide attempters had a 20% higher rate of Major Depressive Disorder than the control group. Additionally, suicidal ideations were related to higher levels of depressive symptoms, which were also associated with high intent to die, impulsivity, and past suicide attempts.

Depressive symptoms do not only affect an adolescent during the formative years, they are a significant predictor of depressive symptoms in adulthood (Pine, Cohen, Cohen, and Brook, 1999; Naicker, Galambos, & Kolaitis, 2012; Weissman et al., 1999). In fact, according to Kolaitis (2012), depressed adolescents have 2-7 times the risk of being depressed as adults, compared with non-depressed controls in the study. Depressive symptoms in adolescence are correlated with mental health problems that continue into adulthood (Jonsson et al., 2011; Kandel & Davies, 1986). This is also a powerful predictor of increased health costs during young adulthood (Keenan-Miller, Hammen, & Brennan, 2007).

There are many factors that put an adolescent at risk for depressive symptoms, some fixed and some variable (Garber, 2006). Genetics and gender are both fixed risks for depressive symptoms. It has been established that 50% of the risk for depressive symptoms is heritable (Nes, Røysamb, Reichborn-Kjennerud, Harris, & Tambs, 2007). Females are also at a higher risk for depressive symptoms than males (Hankin et al., 1998). Some variable risk factors for

adolescent depressive symptoms include temperament of the child (Masi et al., 2003), negative cognitions (Beevers, Wells, & Miller, 2007), and parental depression (Wilkinson, Harris, Kelvin, Dubicka, & Goodyer, 2013).

### **Parenting**

A considerable body of research has addressed the role of parenting in adolescent depressive symptoms (Betts, Gullone, & Allen, 2009; Gaté et al., 2013). It has been established that approximately 8% of the variance in risk for depressive symptoms can be attributed to parenting (McLeod, Weisz, & Wood, 2007). Among the parenting factors linked to depressive symptoms are decreased parental warmth (Patton, Coffey, Posterino, Carlin, & Wolfe, 2001; Betts, Gullone, & Allen, 2009; Perris et al., 1986) and increased psychological control (Soenens & Vansteenkiste, 2010; Garber, Robinson, & Valentiner, 1997; McLeod et al., 2007; Albrecht, Galambos, & Jansson, 2007; Vinita & Saroj, 2012).

Parental warmth is characterized by how the parent responds to the child's feelings and needs, or whether the parent gives comfort and understanding when the child is upset. In a study by Betts, Gullone, and Allen (2009), high depressive symptoms were correlated with temperament and emotion regulation strategies of the subjects and with a parenting style of low nurturance and high overprotection. Although the direction of influence between depressive symptoms and parenting is inconclusive due to the cross-sectional design of the study, the findings are interesting because they show a link between depression and parenting. Parental rejection (lack of parental warmth) has also been significantly related to child depressive symptoms (McLeod et al., 2007).

Another parenting factor researchers have studied in depth is psychological control of children by their parents (Barber, 1996). According to Soenens and Vansteenkiste (2010),

psychological control is when the behaviors of parents intrude on the inner life and thoughts of a child. Parents who are high in psychological control often use guilt, shame, and the withdrawal of love as parenting techniques. Garber, Robinson, and Valentiner (1997), found that maternal psychological control was positively related to depressive symptoms.

According to Russell and Russell (1989), warmth is expressed and experienced differently according to the gender of the parent-child dyad. Thus, mothers express warmth differently towards sons than towards daughters, as do fathers. Both boys and girls experience warmth differently from mothers and fathers as well. A review of the literature by Collins & Russell (1991) showed mother-child relationships begin to contrast with father child relationships in middle childhood and into adolescence. Mothers were found to be more accepting and more involved in daily caregiving than fathers. Adolescents also felt closer to mothers than fathers, who were more often involved in recreation, play, and instrumental goals. Videon (2005) found that adolescents' relationships with their fathers are more volatile than with their mothers. Even when controlling for the relationship with mothers, the father relationship plays a significant role in the son or daughter's psychological health. This research shows that the gender of the parent and the gender of the child influences how parenting occurs and how the child experiences it, and mother-child and father-child relationships contrast more in adolescence than they do in early childhood.

Although there are clear links between parenting (warmth and psychological control) and depressive symptoms, it is also important to begin to identify more child-centered variables that might moderate the relationship between parenting and depressive symptoms. These moderating variables may prove protective for depressive symptoms when an adolescent is faced with negative parenting, or they may add additional strength for an adolescent who already

experiences positive parenting. Specifically, this study draws on resilience theory and hope theory to examine the moderating role of hope in the links between parental warmth and psychological control and adolescent depressive symptoms.

### **Theoretical Assumptions**

Even when children are at risk for negative outcomes, many children possess protective factors that help them overcome negative experiences. Resilience theory specifically addresses conflict and adaptation (Fletcher & Sarkar, 2013). Such resilience is explained as immunity to environmental factors, or an ability to overcome negative influences from the environment (Rutter, 2006). It is, therefore, possible that some adolescents who are at greater risk for depressive symptoms due to decreased warmth or increased psychological control in parenting also possess some resilience factors that may buffer them from these links.

One possible resilience factor is hope. Hope has moved into the forefront of research in recent years (Snyder, 2000). Hope is similar to other positive constructs such as optimism, self-efficacy, and self-esteem, with the exception that hope is more comprehensive; in addition to a belief in or expectancy for positive outcomes, hope theory suggests that an individual with hope is also motivated to attain positive outcomes (Magaletta & Oliver, 1999). Snyder's (2000) hope theory is based on goal-oriented thinking. Snyder has divided hope into two components, pathways thinking (the ability a person has to produce plausible routes to goals) and agency thinking (the determination that propels people along the pathway to their goal).

According to Snyder (2000), everyone experiences blocked goals during the course of daily living. High hope individuals believe they can adapt. They find alternate paths to their goals or establish alternate goals. Low hope individuals have more negative emotional reactivity

to blocked goals than high hope thinkers. Therefore, individuals with high hope will experience more positive emotional affect and achieve more than an individual who has low hope.

## **Hope**

Current research has shown that hope has many positive outcomes for children and adolescents and is an important psychological strength (Chang & DeSimone, 2001). According to Gilman, Dooley, and Florell (2006), high hope adolescents report significantly higher scores on personal adjustment and overall life satisfaction than youth who experience only average hope. They also found that adolescents who were high in hope experience lower levels of emotional distress (Gilman, Dooley, & Florell, 2006). Hope is actually a predictor of positive emotional affect in adolescents (Ciarrochi, Heaven, & Davies, 2007). Hope has also been positively correlated with academic life satisfaction (Chang, 1998). Thus, it is apparent that hope is an important predictor of positive adolescent outcomes.

There is also some empirical support for hope as a protective factor against depressive symptoms and anxious symptoms (Arnau, Rosen, Finch, Rhudy, & Fortunato, 2007; Padilla-Walker, Hardy, & Christensen, 2011), and it has been found to protect against suicide risk (Roswarski & Dunn, 2009). Thus, it is also plausible that hope moderates relationships between experiences and outcomes for individuals because the high-hope individual has more intrinsic power to overcome negative experience.

There is some evidence that hope can act as a moderator. Hope has been shown to moderate the relationship between rumination and depressive symptoms (Geiger & Kwon, 2010), such that individuals with higher hope have lower symptoms of depression, despite the presence of rumination. It has also been shown that hope moderates the relationship between pessimism and passive coping (Lopes & Cunha, 2008). Specifically, individuals high in

pessimism but who also had higher levels of hope had lower levels of passive coping. In another study by Valle, Huebner, and Suldo (2006), hope was found to moderate the relationship between stressful life events and an adolescent's well being.

### **Current Study**

Because depressive symptoms are such a large concern in the adolescent population, the purpose of the current study is to add to the body of research regarding the association between parenting and depressive symptoms. One of the strengths of this study is that it is of longitudinal design. I draw on resilience theory (Fletcher & Sarkar, 2013) and hope theory (Snyder, 2000) and build on the limited work regarding the role of hope by examining it as a moderator of the relationship between parenting and depression. There is some indication that parenting impacts hope, but overall, it appears hope is a correlate, not an outcome, of parenting (Heaven & Chiarrochi, 2008; Padilla-Walker, Hardy & Christensen, 2011). However, there has been no research establishing whether hope can moderate the effects of parenting.

Due to gender differences found in depressive symptoms among both adolescents and adults (Hankin et al., 1998), it is important to separate out the gender of the child and the gender of the parents when looking at the impact of parenting on adolescent depressive symptoms. Using a longitudinal sample including adolescent- and parent-reports, the current study will investigate the moderating role of hope on the link between parenting behaviors (warmth and psychological control) and adolescent depression, attending to gender differences in the child and the parent. Specific hypotheses and research questions to be addressed are:

Hypothesis 1: Parental warmth negatively predicts depressive symptoms among adolescents.

Hypothesis 2: Parental psychological control positively predicts depressive symptoms among adolescents.

RQ1: Does adolescent hope moderate the relationship between parental warmth and adolescent depressive symptoms?

RQ2: Does adolescent hope moderate the relationship between parental psychological control and adolescent depressive symptoms?

RQ3: Does the relationship between study variables differ for adolescent boys and girls?

## **Method**

### **Procedure**

Seventy-four percent of the participant families for the Flourishing Families Project were selected from a large northwestern city, and 26% were selected from a mid-sized city in the Intermountain West. Families were interviewed during the first eight months of 2007 for a wave 1 data sample. Subsequently, families were interviewed at yearly intervals for a second (2008), third (2009), fourth (2010), and fifth time (2011). Families were primarily recruited using a purchased national telephone survey database (Polk Directories/InfoUSA). This database claimed to contain 82 million households across the United States and had detailed information about each household, including presence and age of children. Families identified using the Polk Directory were randomly selected from targeted census tracts that mirrored the socio-economic and racial stratification of reports of local school districts. All families with a child between the ages of 10 and 14 living within target census tracts were deemed eligible to participate in the FFP. Of the 692 eligible families contacted, 423 agreed to participate, resulting in a 61% response rate. However, the Polk Directory national database was generated using telephone, magazine, and Internet subscription reports; so families of lower socio-economic status were



under-represented. Therefore, in an attempt to more closely mirror the demographics of the local area, a limited number of families were recruited into the study through other means (e.g., referrals, fliers;  $n = 77$ , 15%). By broadening the approach, the social-economic and ethnic diversity of the sample was increased.

All families were contacted directly using a multi-stage recruitment protocol. First, a letter of introduction was sent to potentially eligible families (this step was skipped for the 15 families who responded to fliers). Second, interviewers made home visits and phone calls to confirm eligibility and willingness to participate in the study. Once eligibility and consent were established, interviewers made an appointment to come to the family's home to conduct an assessment interview that included video-taped interactions, as well as questionnaires that were completed in the home. The most frequent reasons cited by families for not wanting to participate in the study were lack of time and concerns about privacy. It is important to note that there were very little missing data. As interviewers collected each segment of the in-home interview, questionnaires were screened for missing answers and double marking.

### **Participants**

The participants for this study were taken from waves 3 and 4 of the Flourishing Families Project (FFP), a longitudinal study of inner-family life involving families with a child between the ages of 13 and 18. These waves were chosen because adolescent depressive symptoms were first assessed in Wave 3. The sample at Wave 3 consists of 681 families (with 100% retention from wave 3 to wave 4) with a child within the target range (493 two-parent families and 188 single-parent families). Participant children averaged 13.3 years of age, while mothers averaged 44.9 years and fathers average 46.6 years in age. Four hundred eighty three families (72.9%) were of European American ethnicity, 60 (9.0%) were African American, and 8 families (1.3%)

were Hispanic or Asian American. One hundred eleven families (16.7%) are categorized as multi-ethnic, based on a combination of two or more ethnicities among family members, and one family (.2%) reported being a different ethnicity. In terms of parental education, 93.7% of mothers and approximately 96.2% of fathers had a bachelor's degree or higher. Related to yearly family income, 15.4% of families reported making less than \$29,000; 34.5% of families reported income between \$30,000- 59,000; 35.6% reported income in the \$60,000-99,000; 9.8% reported income in the \$100,000-149,000, with another 4.7% making \$150,000 or more per year. Of the single parents, 56 (29.8%) had never been married, 20 (10.6%) were separated, 90 (47.9%) were divorced, 9 (4.8%) were widowed, and 13 (6.9%) were cohabiting with someone.

### Measures

**Depressive symptoms.** Children's depressive symptoms at Wave 4 were assessed using the 20-item self-report Center for Epidemiological Studies Depression Scale for Children (CES-DC, Weissman, Orvaschel, & Padian, 1980). Participants responded by rating the degree to which they have experienced each item in the past week, with a Likert-type response scale ranging from 1 (*not at all*) to 4 (*a lot*). Higher scores indicate greater depressive symptoms. Sample items included, "I was bothered by things that usually don't bother me," and "I felt lonely, like I didn't have any friends." Past research has found Cronbach's alpha reliability coefficients ranging from .77 to .84 (Roberts, Andrews, Lewinsohn & Hops, 1990) and the Cronbach's alpha reliability coefficient was found to be .92 for girls in this sample and .90 for boys.

**Parental warmth.** Parental warmth at Wave 3 was measured using the warmth/support subscale from Parenting Styles and Dimensions Questionnaire-Short Version (PSDQ, Robinson, Mandelco, Olsen, & Hart, 2001). Based on child report, this measure assesses parental behaviors

centered around warmth and support such as how the parent responds to the child's feelings and needs and whether the parent comforts the child when he or she is upset. Responses range on a five point Likert-type scale from 1 (*never*) to 5 (*always*); however this variable was transformed and its mean-centered version was used in analyses. Higher scores indicated higher levels of warmth behaviors. Reliability coefficients (Cronbach's Alphas) for this research sample were found to be .83 for girls' report of mother, .82 for boys' report of mother, .80 for girls' report of father, and .79 for boys' report of father.

**Parental psychological control.** The use of parental psychological control was assessed using the Psychological Control Scale-Youth Self Report (Barber, 1996) at Wave 3.

Respondents answered how true items were for each parent. Sample items included: "my parent interrupts me" and "my parent will avoid looking at me when I have disappointed her/him."

Responses ranged from 1 (*never*) to 5 (*very often*) with higher scores indicating a greater degree of parental psychological control. Again, this variable was mean-centered prior to use in analyses. Cronbach's Alpha reliability coefficients for this measure have been found to be .83 for mothers and fathers (Barber, 1996). For this sample, Cronbach's Alpha was .84 for girls' report of mother, .88 for boys' report of mother, .84 for girls' report of father, and .88 for boys' report of father.

**Hope.** This self-report measure is adapted from a hope/optimism scale (Peterson & Seligman, 2004), with five point Likert response categories ranging from 1 (*very much like me*) to 5 (*very much unlike me*). Youth responded during Wave 3 in terms of how much each statement was like them (e.g., "I always look on the bright side" and "I expect the best"). Items were reverse scored so that higher scores indicate higher levels of hope, and the variable was centered at the mean for analyses. Past research has found Cronbach's alpha reliability

coefficients ranging from .70 to .86 (Peterson & Seligman, 2004), and the Cronbach's alpha reliability coefficient was .85 for girls in this sample and .83 for boys.

**Controls.** Covariates included in the study as controls were adolescent depressive symptoms at Wave 3, Socio-economic status (represented as an income-to-needs ratio using parents reported income and family size and the 2009 federal poverty guidelines), child age, and parent depression at Wave 3 (Radloff, 1977). Again, continuous covariates were centered at their mean and used in the analyses.

### **Analytic Strategy**

Path analysis was utilized to test the hypotheses and answer the proposed research questions (Muthén & Muthén, 1998-2009). As a statistical analysis procedure, path analysis was chosen for the ability to model the relationships between multiple observed variables and subsequently test equivalence between boys and girls using multiple group analysis. The independent variables being assessed included mother's and father's psychological control and parental warmth at time 3. The dependent variable was depression at time 4. Hope at time 3 was included as moderator of the links between warmth and depressive symptoms, and parental psychological control and depressive symptoms; thus, Hope X Warmth and Hope X Psychological Control interaction terms were created for adolescents' reports of mothers and fathers, and these were used as predictors in the model (see Figure 1).

### **Results**

Descriptive statistics were calculated and bivariate correlations were estimated for all predictors in the model. Results of independent samples t-tests indicated that girls reported higher levels of mother's warmth, as well as depression at time 3 and 4, than boys. Boys reported higher levels of father's psychological control than girls. Descriptive statistics and t-test

statistics are found in Table 1. Most correlations were small to moderate; however, adolescent reports of both mother's and father's warmth were highly correlated, as were their reports of mother's and father's psychological control. All correlations can be found in Table 2.

I fit the hypothesized model as a baseline model and to test the relationships between the variables of interest (see Figure 1). Model fit indices represented excellent model fit [ $\chi^2(25) = 60.840, p < .00$ ; RMSEA = .05; TLI = .92; SRMR = 0.04]. Mother's psychological control was predictive of child depressive symptoms ( $B = .104, SE = .038, p = .007$ ). There were no other significant main effects. There was however a significant interaction effect, such that hope moderated the effect of mother's psychological control on child's depressive symptoms ( $B = -.120, SE = .051, p = .019$ ). A similar interaction between father's psychological control and hope was also detected ( $B = .232, SE = .054, p < .001$ ). The model predicted 35.6% of the variance in child's depressive symptoms.

In order to examine whether effects were the same for boys and girls, I conducted a multiple group analysis (see Table 3). The model was estimated freely for boys and girls, after which a series of nested models were fit in which parameter estimates were constrained one by one to be equal for boys and girls. Chi-square difference tests were used to determine whether model fit worsened with the addition of each new constraint. A worsening of model fit indicated that the parameter being tested should be freely estimated for boys and girls. If model fit did not worsen, it indicated that the parameter was the same for boys and girls. The final model had excellent fit ( $\chi^2(68) = 106.129, p = .002$ ; RMSEA estimate = .04,  $p = .829$ ; TLI = .93; SRMR = .046). Table 3 includes all unstandardized and standardized coefficients for boys and girls.

For girls, there was a statistically significant main effect of mother's psychological control on child depressive symptoms ( $B=.089$ ,  $SE=.038$ ,  $p=.020$ ). There were no other statistically significant main effects; however, all of the interaction effects were significant. Hope moderated the effects of mother's warmth ( $B=-.120$ ,  $SE=.059$ ,  $p=.042$ ), father's warmth ( $B=.133$ ,  $SE=.056$ ,  $p=.018$ ), mother's psychological control ( $B=-0.138$ ,  $SE=.053$ ,  $p=.008$ ), and father's psychological control ( $B=.250$ ,  $SE=.054$ ,  $p=.000$ ). The model explained 39.6% of the variance in girls' depressive symptoms.

Results for boys were similar to those found for girls. Again, mother's psychological control positively predicted child's depressive symptoms ( $B=.089$ ,  $SE=.038$ ,  $p=.020$ ). There were no other statistically significant main effects. Additionally, for boys, hope moderated the effect of mother's psychological control on depressive symptoms ( $B=-0.1338$ ,  $SE=.053$ ,  $p=.008$ ) and father's psychological control on depressive symptoms ( $B=.250$ ,  $SE=.054$ ,  $p=.000$ ). The model explained 32.3% of variance in boys' depressive symptoms.

In order to probe the significant interaction effects, I calculated the region of significance for each significant interaction detected as described by Curran, Bauer, and Willoughby (2006). This provided a range of values for hope at which the relationship between predictor(s) and depressive symptoms was significant. I then plotted simple slopes of high and low hope (one standard deviation above and below the mean, respectively) as described by Aiken and West (1991) for the significant interactions.

Results of these examinations indicated that there was a positive relationship between mother's warmth and depressive symptoms for girls with hope just below the mean and lower ( $<-.0028$ ), and no relationship for girls with higher hope (see Figure 2). The relationship between father's warmth and depressive symptoms was negative for girls with hope just below the mean

and lower ( $< -.0024$ ), and there was no relationship for girls with higher hope (see Figure 2). For girls, there was a very slight negative relationship between mother's psychological control and depressive symptoms for hope just below the mean and higher ( $> -.0052$ ), and for boys, there was a very slight positive relationship when hope was just below the mean and higher ( $> -.0031$ ); there was no relationship when hope was lower (see Figure 3). For girls and boys, there was a positive relationship between father's psychological control and depressive symptoms when hope was just above the mean and higher ( $> .0499$  for girls and  $> .0104$  for boys), but no relationship when hope was lower (see Figure 4).

### Discussion

The purpose of this study was to examine hope as a possible moderator of the relationship between two parenting variables (parental warmth and parental psychological control) and adolescent depressive symptoms, anticipating adding to the body of research supporting the protective role that hope plays during adolescence (Arnau, Rosen, Finch, Rhudy, & Fortunato, 2007; Padilla-Walker, Hardy, & Christensen, 2011). One of the strengths of the current study is the fact that it is longitudinal in design, thus I was able to look at how hope moderated the predictive relationship between parenting variables and depressive symptoms. I specifically looked at the relationship between both mothers and fathers and their adolescent sons and daughters, and I included single parent families in my data along with two-parent families.

Unexpectedly, parental warmth did not significantly predict adolescent depressive symptoms. Nevertheless, there was a significant interaction between hope and warmth for girls. For mothers and daughters in this study, high levels of maternal warmth predict higher levels of depressive symptoms when hope is slightly below the mean and lower (see Figure 2). This result

is surprising; however, it is possible that unmeasured variables partially account for these findings. For adolescents, particularly those low in hope, there are many factors that may impact them besides parenting. There is the possibility that girls with low hope rely too much on warm mothers, creating an overprotective environment, which leads to higher levels of depression. The opposite may also be occurring, mothers recognize their daughters with low hope are depressed and increase their warmth.

Research has identified a link between mothers encouraging emotional expression in their daughters and their increased rumination (Cox, Mezulis, & Hyde, 2010), and the tendency for girls to ruminate has been correlated with greater depressive symptoms than those found in boys (Nolen-Hoeksema, Stice, Wade & Bohon, 2007; Jose & Brown, 2008). Thus, it is possible that higher warmth in our study inadvertently contributed to developing greater depressive symptoms by way of encouraging emotional expressiveness and therefore rumination. This may be why the relationship was found among girls with lower levels of hope; these girls may be particularly susceptible to the ruminative effects of encouraging emotional expression. Indeed, there was no relationship between maternal warmth and depressive symptoms among higher hope girls, suggesting that their hope may protect them from this process. Further research specifically examining the encouragement of emotional expression and rumination is needed to confirm these assumptions.

In a study by Plunkett, Henry, Robinson, Behnke & Falcon (2007), warm parenting by fathers had a direct negative effect on depressive symptoms in daughters but not sons. The trend for fathers and daughters is similar in this study among girls with low hope (see Figure 2). This leads one to believe that when girls have only average or low levels of hope, they are more sensitive to their fathers' parenting than girls with high hope. Indeed, the research has indicated



that father's warmth lowers daughter's cortisol levels (Byrd-Craven, Auer, Granger, & Massey, 2012), which in turn has been linked to lower levels of depression (Ulrike, Reinhold & Dirk, 2013). These results may be due to lower levels of hope among the samples. Conversely, higher hope girls may be less influenced by their father's parenting due to an internalized belief that they can be successful and overcome obstacles on their own.

As expected, parental psychological control was predictive of depressive symptoms in children, but this finding was only significant for mothers, and the relationship was moderated by hope. My results indicate that when a girl has a high level of hope, mother's psychological control has a very slight negative relationship with depressive symptoms. I found slightly different results for mothers and boys. In this case, the effect is minimally positive when the son has high levels of hope. I note that these effects, although significant, are very small and imperceptible in the simple slopes graphs. Thus, these findings are likely due to the use of a large sample size, which allows the detection of statistically significant effects, even when practically meaningless (see Figure 3).

There was also a significant interaction between hope and father's psychological control for both boys and girls in the current study. High levels of parental psychological control, specifically that of fathers, has been linked to depressive symptoms in adolescents in several studies (Plunket et al., 2007; Soenens & Vansteenkiste, 2010; Garber, Robinson, & Valentiner, 1997; McLeod et al., 2007; Albrecht, Galambos, & Jansson, 2007; Vinita & Saroj, 2012). However, in this study, the relationship only existed among adolescents with high levels of hope (see Figure 4); there was no relationship for low hope adolescents. This might be explained by the strong motivational quality of hope (Snyder, 2000). It is plausible that a child with high hope finds himself or herself strongly resisting the psychological control of a father, thus causing more

stress and conflict in the relationship and higher levels of depressive symptoms in the adolescent. Children with low hope, including a lower ability to move in a successful direction, may welcome more direction and involvement from their father, even if it comes in the form of psychological control; thus, their depressive symptoms are not predicted by father's psychological control.

It is also possible that results can be explained by a different conceptualization of hope. For instance, hope may present as a state rather than a trait in some children. For example, when depression increases, hope may also decrease. Or, when considering the psychological control results, it is possible that parents are using whatever means possible to get through to a high hope child, creating a circular interaction pattern; as the hope increases, the parent utilizes more psychological control.

### **Clinical Implications**

The relationship between mothers and daughters is complex. It is somewhat perplexing that my findings show high levels of maternal warmth may inadvertently lead to higher levels of depressive symptoms in daughters who have low hope. Because the interaction is possibly associated with the daughter's ruminating behavior, using cognitive-behavioral interventions to decrease rumination may be helpful. Since the relationship between maternal warmth and depressive symptoms was non-significant among high hope girls, interventions could also focus on increasing hope in these girls.

My results support the idea that a warmer father-daughter relationship can protect the daughter from stress and thus protect her from higher levels of depressive symptoms when she has a low level of hope. Hence, low hope girls may need a higher level of warmth from their fathers, especially in relationship to stress, where high hope girls are able to function well

regardless of the level of their father's warmth and support. In family therapy, appropriate interventions would include increasing the warmth the father shows to the low-hope daughter, both through experiential interventions and homework that includes warm interaction outside of session. It may be necessary to help the mother understand and support the value of such interaction for the father-daughter. It would also be valuable to work with the daughter individually to increase her self-efficacy and hope so she is not so dependent upon that parental relationship to protect her from depressive symptoms.

Because father's psychological control positively predicted depressive symptoms in high-hope kids, helping the father who uses psychological control recognize how his behavior may be conflicting with a high hope child and contributing to depressive symptoms would be a valuable clinical intervention. In truth, helping both parents and children navigate the complex stage of separation-individuation inherent in adolescence (Frank, Poorman, Van Egeren & Field, 1997), without mitigating the valuable role hope plays in the adolescent's life, would be beneficial. When working with the individual child, helping the child differentiate in a favorable way from parents, including developing healthy boundaries with a negative parent, could help the child negotiate a difficult parent-child relationship.

My findings inform the way we address the parent subsystem and the various parent-child subsystems in the therapy room. Adding to the body of knowledge regarding how the parenting of fathers and mothers impacts children differently, my results indicate that carefully attending to the warmth and psychological control within parent-child dyads and the important role each parent plays in the context of the hope of adolescent children within the family system could prove advantageous. Assessing for hope would be a valuable tool when conceptualizing what is happening in a family system. From the current study's results, recognizing when a child

is low in hope may help the therapist further conceptualize how parenting behaviors are impacting the child. Hope may also be an intergenerational trait: something that is passed from parents to children. Understanding the way hope develops will help family therapists assist families to work together to increase hope at all levels of the family system.

### **Limitations and Future Research**

Although my sample is representative of the demographics where the sample originated, it is fairly ethnically homogenous and skewed towards high SES. Thus, the results may not be generalizable to the population as a whole. The next step would be to conduct similar research with a more diverse sample, including subjects of varying ethnicity, SES and education levels.

Relatedly, consistent with a community sample, the means for depressive symptoms and psychological control were relatively low, whereas those for hope and warmth were moderate. This suggests that the sample is not particularly distressed at an individual or family level. This may be one reason I was unable to replicate previous findings regarding the relationship between parenting variables and depressive symptoms. Future research should seek to replicate findings using samples that are more diverse in levels of individual distress (and hope) as well as family functioning.

Additionally, all of the measures in this study were gathered from one respondent (i.e. child report), so there is dependence among the measures. This would explain why mother and father variables are highly correlated. It may also explain why some of the unexpected relationships identified in the data were significant. Utilizing observational data of the parenting predictors in a future study could provide a more accurate picture of the relationships.

It would be particularly valuable to take a closer look at psychological control and how it interacts with hope. Where hope typically displays as a positive trait in adolescents, this study

found hope in concert with parental psychological control to be detrimental to the child, or in the least, not protective. Can a high level of hope actually become an impediment for a child who is subjected to negative parenting? A possible future direction might be to more carefully examine hope and its elements, such as that of motivation, in this interaction.

Finally, this study has uncovered a valuable piece of information regarding the importance of the father's warmth for a low-hope daughter. More research regarding how fathers express their warmth and the dynamics of father-daughter relationships at varying levels of adolescent hope would inform the practice of family therapy. With this knowledge, therapists would be better equipped to assist fathers to improve their parenting in a manner that will be the most effective with their daughters.

### **Conclusion**

The current study adds to the body of knowledge regarding hope: specifically that hope interacts with parenting variables in their relationship with depressive symptoms; however, these findings are largely unexpected and, for the most part, do not support the idea that high hope in an adolescent is protective of negative parenting. Instead, results suggest that warm parenting by the father plays a significant role with low-hope girls. Thus, a father's positive relationship with his children, especially daughters, should be encouraged and developed. Another surprising result was that mother's warmth had a positive effect on depressive symptoms in low-hope girls. This finding deserves closer scrutiny in the future. Future research pursuits should also include more diverse samples in order to replicate unexpected findings.

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Table 1

*Descriptive Properties and T-test Results for Boys and Girls of Major Study Variables*

Variable	N=	M	SD	<i>t (df)</i>
Child's Depression				3.60 (630)***
Full Sample	632	1.6384	.50294	
Boys	309	1.5655	.45767	
Girls	323	1.7082	.53414	
Mother's Warmth				3.00 (629)**
Full Sample	622	3.8587	.80724	
Boys	307	3.7609	.81748	
Girls	315	3.9540	.78680	
Father's Warmth				1.65 (544)
Full Sample	546	3.6422	.86466	
Boys	273	3.5814	.88511	
Girls	273	3.7031	.84093	
Mother's Psychological Control				-.81 (619)
Full Sample	621	1.8375	.71041	
Boys	306	1.8608	.75173	
Girls	315	1.8149	.66825	
Father's Psychological Control				-2.72 (545)**
Full Sample	547	1.7567	.68290	
Boys	273	1.8357	.74644	
Girls	274	1.6779	.60423	
Child's Hope				1.77 (621)
Full Sample	623	3.7516	.64731	
Boys	308	3.7053	.63591	
Girls	315	3.7968	.65611	
Child's Depression-Control				3.52 (621)***
Full Sample	623	1.6131	.50715	
Boys	308	1.5413	.44136	
Girls	315	1.6832	.55592	
Child's Age				
Full Sample	---	---	---	-0.36 (679)
Boys	316	12.38	1.072	
Girls	326	12.33	1.064	
Family SES				.43 (48)
Full Sample	490	3.8467	1.8424	
Boys	242	3.8103	1.8629	
Girls	248	3.8822	1.8252	
Mother's Depression				-.32 (621)
Full Sample	646	1.4230	.31309	
Boys	318	1.4242	.32344	
Girls	328	1.4218	.30321	
Father's Depression				-.02 (439)
Full Sample	635	1.4338	.30260	
Boys	311	1.4357	.31158	
Girls	324	1.4320	.29419	

Note. \*\* $p < .01$ , \*\*\* $p < .001$ .



Table 2

*Bivariate correlations*

	Child Depression	Child Hope	Mom Psych Control	Dad Psych Control	Mom Warmth	Dad Warmth
Child Depression		-.186**	.345**	.228**	-.231**	-.320**
Child Hope	-.019		-.140*	-.022	.310**	.322**
Mom Psych Cont	.309**	-.207**		.569**	.432**	-.326**
Dad Psych Cont	.330**	-.081	.798**		-.171**	-.384**
Mom Warmth	-.148*	.357**	-.385**	-.353**		.636**
Dad Warmth	-.129*	.232**	-.337**	-.329**	.794**	

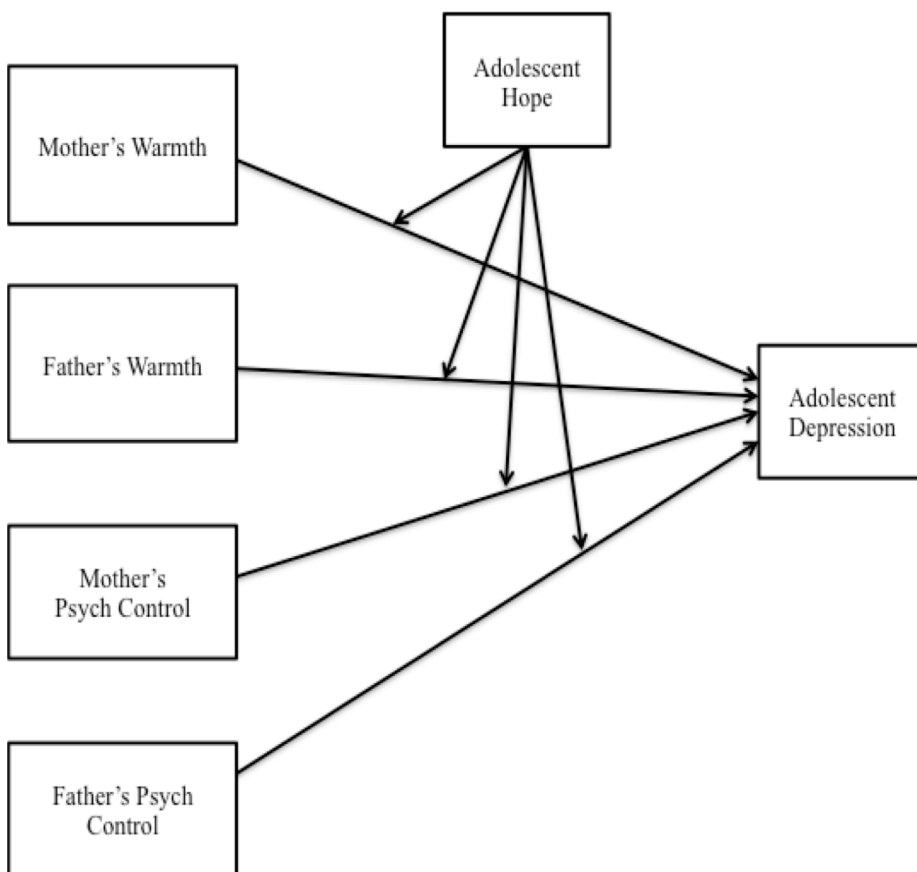
*Notes.* \*  $p < .05$  ; \*\*  $p < .01$ . Correlations above the diagonal are girls. Correlations below the diagonal are boys.

Table 3

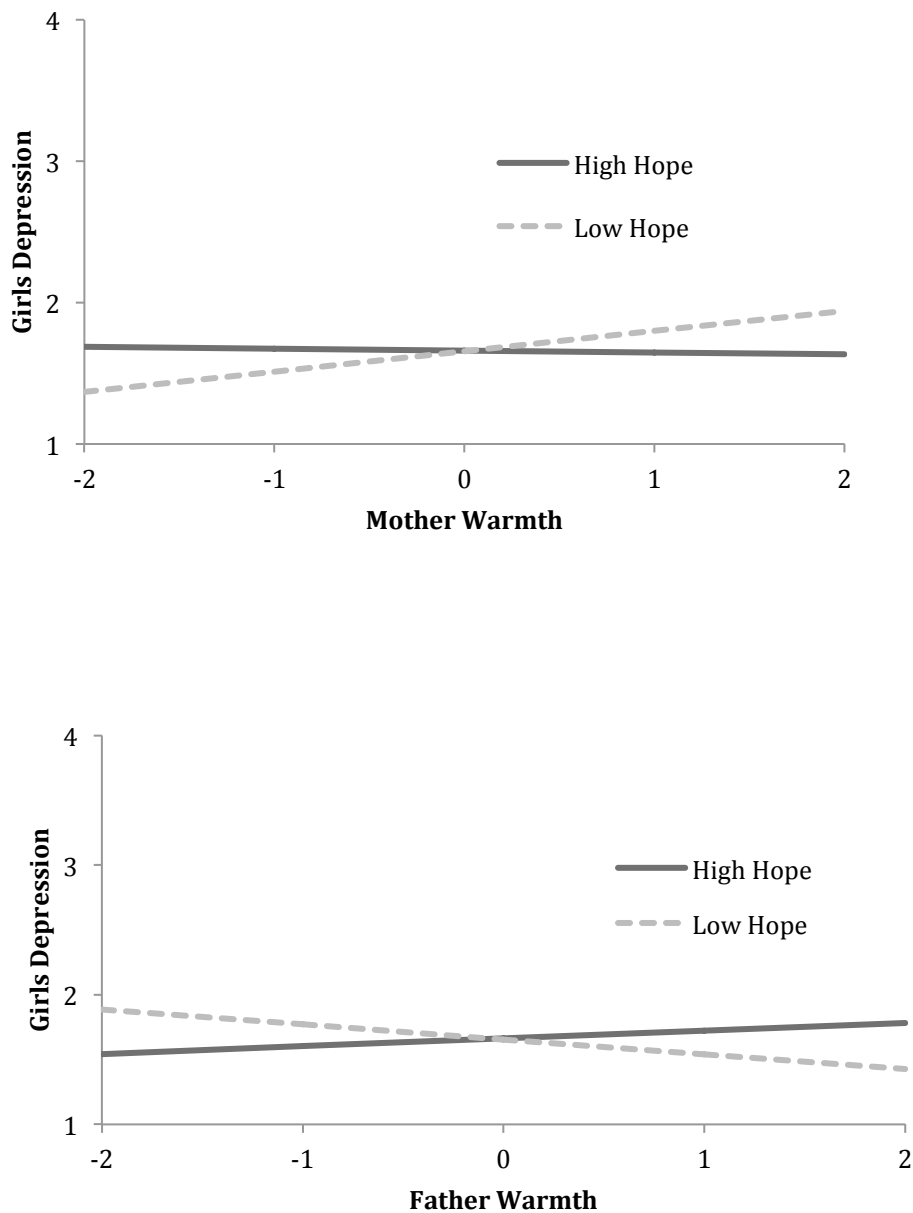
*Results for predictors of depressive symptoms separated by boys and girls.*

Predictor	Unstandardized		Standardized	
	B	Standard Error	B	Standard Error
Mother's Warmth				
Boys	0.065	0.035	0.117	0.062
Girls	0.065	0.035	0.095	0.050
Father's Warmth				
Boys	-0.027	0.032	-0.052	0.063
Girls	-0.027	0.032	-0.042	0.051
Mother's Psychological Control				
Boys	0.089*	0.038	0.149*	0.065
Girls	0.089*	0.038	0.109*	0.047
Father's Psychological Control				
Boys	0.018	0.040	0.030	0.067
Girls	0.018	0.040	0.020	0.044
Adolescent Hope				
Boys	0.005	0.028	0.008	0.040
Girls	0.005	0.028	0.006	0.032
Hope Moderating Mother's Warmth				
Boys	0.053	0.059	0.070	0.078
Girls	-0.120*	0.059	-0.122*	0.060
Hope Moderating Father's Warmth				
Boys	-0.021	0.059	-0.027	0.078
Girls	-0.133*	0.056	-0.150*	0.063
Hope Moderating Mother's Psych Control				
Boys	-0.138**	0.053	-0.202**	0.077
Girls	-0.138**	0.053	0.112**	0.042
Hope Moderating Father's Psych Control				
Boys	0.250**	0.054	0.354**	0.078
Girls	0.250**	0.054	0.194**	0.042

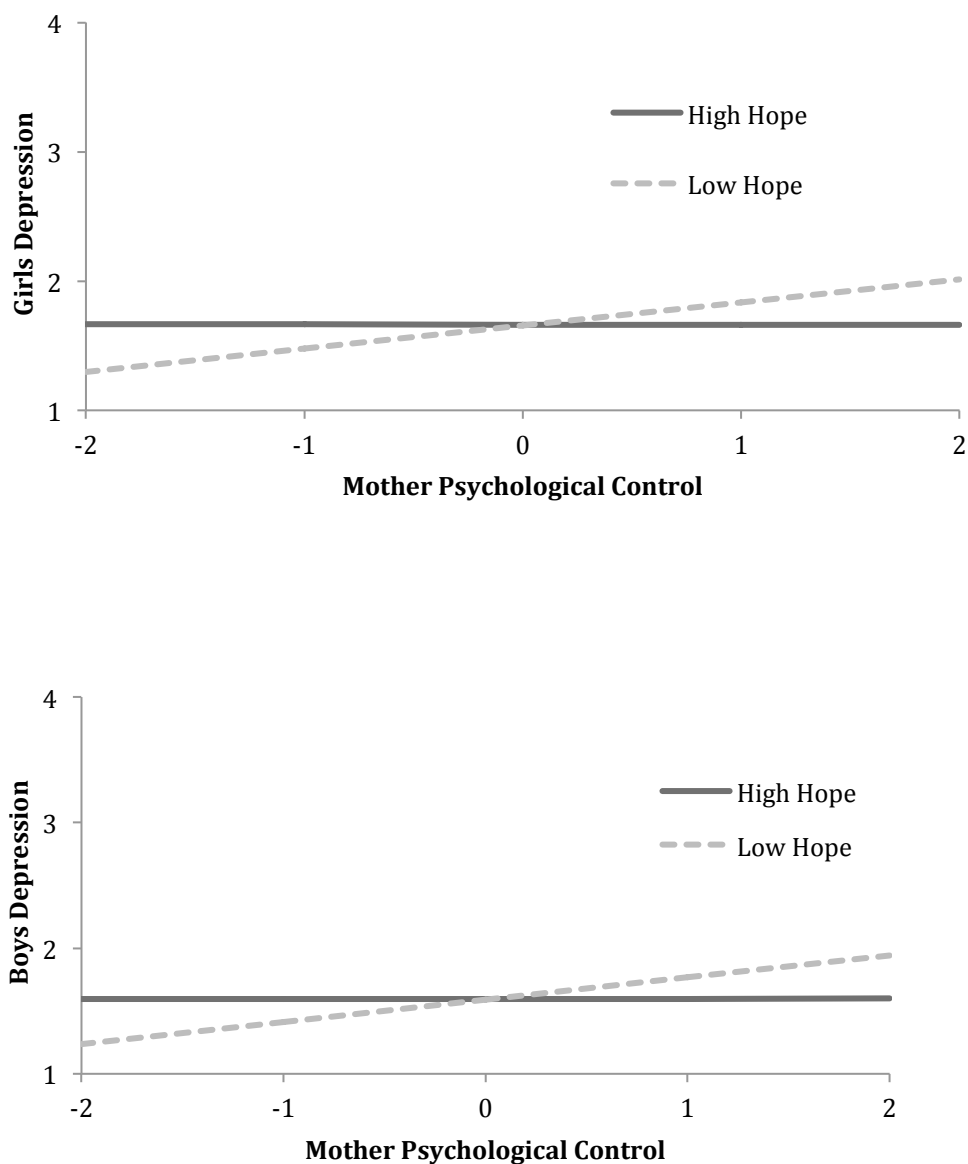
*Notes.* \*  $p < .05$ , \*\*  $p < .01$ .



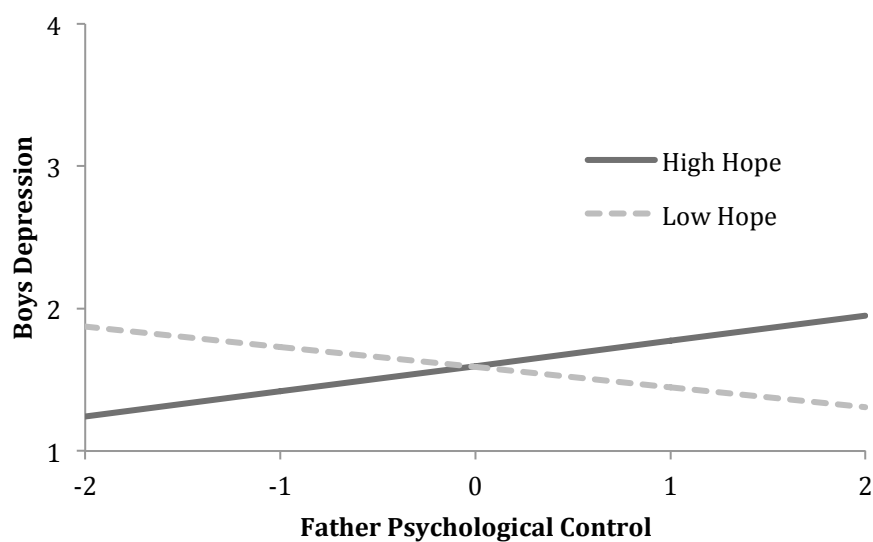
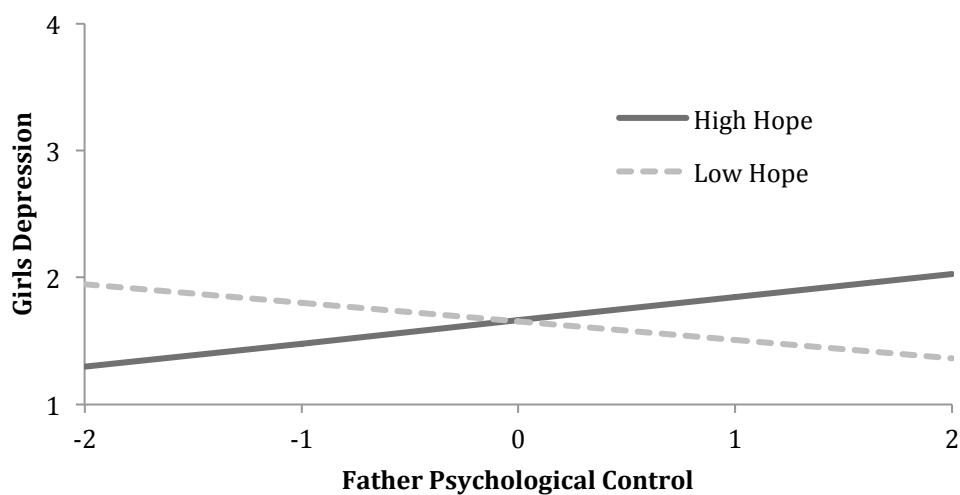
*Figure 1.* Structural Model. Controls include socio-economic status, child's age, child's depression at wave 3, and both mother's and father's depression at wave 3.



*Figure 2.* Simple slopes plot for mother's warmth (top) and father's warmth (bottom) predicting depressive symptoms in girls moderated by high and low hope. For mothers, low hope has a significant positive slope. High hope has a non-significant slope. For fathers, low hope has a significant negative slope. High hope has a non-significant slope.



*Figure 3.* Simple slopes plot for mother's psychological control predicting depressive symptoms in girls (top) and boys (bottom) moderated by high and low hope. In girls, high hope has a significant (and extremely slight negative slope). Low hope has a non-significant slope. In boys, high hope has a VERY slight positive slope. Low hope has a non-significant slope.



*Figure 4.* Simple slopes plot for father's psychological control predicting depressive symptoms in girls (top) and boys (bottom) moderated by high and low hope. In both boys and girls, high hope has a significant positive slope. Low hope has a non-significant slope.

## Appendix

### Depression

In a meta-analysis conducted by Birmaher et al. (1996), literature published during the decade from 1986 to 1996 regarding depressive symptoms in adolescents is reviewed. From their analysis, it was determined that the incidence of depressive symptoms in adolescents is as high as 8.3%. They report the lifetime prevalence of depressive symptoms in adolescents to be approximately 15%. The Birmaher study also showed that mood disorders are occurring in adolescents at earlier ages and at an increased rate compared to past generations. The authors of this study conclude that although depressive symptoms may occur in childhood, depressive symptoms increase significantly after puberty and affect girls almost twice as often as boys (Birmaher et al., 1996).

In a more recent literature analysis by Costello, Erkanli, and Angold (2006), 26 studies were analyzed that included diagnostic interviews adequate to diagnose depression. Approximately 60,000 children with birth years between 1965 and 1996 were identified. This analysis found a steady 5.6% incidence of depressive symptoms in children ages 13-18, regardless of birth cohort. Although the Birmaher et al. (1996) study and the Costello et al. (2006) study report different findings regarding whether we are experiencing an increase in depressive symptoms in recent years, both substantiate that depressive symptoms are evident in the adolescent population.

It is also possible that as adolescents grow older, the incidence of depressive symptoms increases. Some support is found for this in a 2001 study by Haarasilta, Marttunen, Kaprio, and Aro. Part of the National Finnish Healthcare Survey conducted in 1996, this study included 792 adolescents ages 15-19 and 516 young adults ages 20-24. Haarasilta et al. (2001) found

depressive symptoms in 6.0% of adolescent females and 4.4% of adolescent males over a 12-month period. Their findings support the findings of the two above-mentioned studies that depressive symptoms are occurring in adolescents and are affecting females at a higher rate than males. Haarasilta et al. (2001) further our understanding of adolescent depression with their finding that the incidence of depressive symptoms increases in the young adult population to 10.7% of females and 8.1% of males. The study was not longitudinal, but it was conducted on a large representative sample. Thus, it seems that the incidence of depressive symptoms may increase as subjects move from adolescence to young adulthood.

### **Consequences of Depression**

Depression during the crucial and formative years of adolescence can have very negative and far-reaching consequences. One major task of adolescence is gaining an education. Young people with depressive symptoms often underperform academically (Fröjd et al., 2008; Birmaher et al., 1996), which then sets them up for less opportunities and the possibility of more depression connected to their circumstances later in life.

In a Finnish study (Fröjd et al., 2008) involving approximately 2500 adolescents ages 13-17, it was found that school performance was significantly affected when the adolescent suffered from depressive symptoms. Of this sample, 18.4% of the girls were classified as depressed and 11.1% of the boys were depressed. Low GPA was significantly correlated with students who had depressive symptoms. Depressed students also had more difficulty with reading and writing. Students suffering from depressive symptoms had difficulty on subjective measures of concentration and school performance that required them to be self-reliant. Due to the cross-sectional design of this study, we cannot infer that poor school performance was a result of depressive symptoms, but it is clear that they are correlated.



Humensky et al. (2010) conducted a study on a much smaller scale with 83 adolescents between the ages of 14 and 21 who met criteria for subclinical depression but were not yet suffering with MDD. The sample closely matched demographics of the general population for gender and race. The researchers were looking for a correlation between depressed mood and poor school performance. The statistical data did not support a significant correlation between depressed mood and objective measures of school performance such as school attendance and grades. What did correlate significantly was the qualitative study of students' perceived ability to be successful in school. In this portion of the study, it was found that depressive symptoms interfered with students' subjective measures of school performance including difficulty concentrating in class and completing assignments. Students also noted struggling with a negative pattern of procrastination, which led to poor results with schoolwork and then back to more depressed thinking and procrastination.

In addition to the connection between depression and academic underperformance, depressive symptoms are also linked to substance abuse in adolescents. Greenbaum, Prange, Friedman, and Silver (1991) studied just under 550 adolescents between the ages of 12 and 18 who had serious emotional disorders. They were investigating whether substance use was linked to higher rates of other psychiatric disorders. Depressive symptoms were significantly linked in this study to substance use disorder, particularly that of alcohol and marijuana.

Another interesting study, originally looking for a possible link between cognitive competence and alcohol-related problems, discovered a correlation between depressive symptoms and a higher rate of alcohol-related problems in children (Chen, Anthony, & Crum, 1999). This study was conducted with over 1200 elementary school students between the ages of

9 and 13. It was also shown that alcohol-related problems started earlier for those who had symptoms of depression than for those who did not.

Suicide ideation and behavior is another major concern with depressed adolescents. According to Asarnow (1992), who reports on a study conducted with 55 children in a psychiatric residential treatment setting, suicidal children between the ages of 6 years and 13 years reported higher levels of depressive symptoms than non-suicidal children.

Relatedly, in a study by Galaif, Sussman, Necomb, and Locke (2007), findings show close to 2/3 of people who commit suicide have depressive symptoms at the time of their deaths. MDD is considered the most important risk factor for suicide in adolescents. In fact, of adolescents who die from suicide, 90% have been diagnosed with at least one psychiatric disorder, most often MDD. Galaif et al. (2007) reviewed 30 empirical studies published between 1990 and 2005 that focused on adolescent suicidality, depression and alcohol use. The majority of the studies were of cross-sectional design using community samples that were predominantly of Caucasian ethnicity, suggesting the need to examine depression and substance use across time and among more diverse populations.

In another cross-sectional study by Chérif et al. (2012), two groups of adolescents were compared. The first group consisted of 30 adolescents who were admitted to a hospital emergency department for suicide attempts. The second group included adolescents who went to a community clinic for a benign acute medical condition. Suicide attempters had a 20% higher rate of MDD than the control group. In this same study, suicidal ideations were related to higher levels of depressive symptoms. These depressive symptoms were also associated with high intent to die, impulsivity, and past suicide attempts (Chérif et al., 2012).

Depression in adolescence is correlated with mental health issues that continue into adulthood. Pine, Cohen, Cohen, and Brook (1998) conducted a longitudinal study of 776 subjects who were between the ages of 9 and 18 when first interviewed. The subjects were re-interviewed two years and nine years after the first interviews. A two to three-fold increase in adult depressive disorders was present in those who had previously suffered with adolescent depression.

A study by Jonsson et al. (2011) followed a community sample of 382 depressed and non-depressed subjects from adolescence into adulthood with an interview 15 years later when the subjects were between the ages of 19 and 31. Those who had MDD or DD in adolescence developed more enduring depression in adulthood and had higher instances of adult anxiety disorders, multiple mental disorders, suicide attempts, and treatment (Jonsson et al., 2011).

Adolescent depressive symptoms are also a powerful predictor of increased health risks and costs during young adulthood. Keenan-Miller, Hammen, and Brennan (2007) reported on a study of 705 adolescents who were assessed for depression at age 15 and then again for depression and other health outcomes at age 20. Even while controlling for depression at the second point, early depressive symptoms were correlated with lower self-perceived overall health, higher health care utilization, and increased work impairment due to physical health later.

Along with health issues, adolescent depression is also predictive of many other issues in adulthood. A study by Naicker, Galambos, Zeng, Senthilselvan, and Colman (2013) followed 1,027 Canadian teens participating in the National Population Health Survey for a decade beginning at the ages of 16-17. By the first two-year follow-up, the associated effects of depression were noted in employment status, marital status, personal income, education, social support, self-perceived stress, heavy drinking, smoking, migraine headaches, antidepressant use,

and self-reported health. In this particular study, depressive symptoms in the teen years were associated with adaptation difficulty well into the first decade of adulthood (Naicker et al., 2013).

In addition to the above study, Kandel and Davies (1986) conducted a study examining over 900 New York public school students at ages 15 to 16 years, and then checked back with these same subjects 10 years later. The findings were significant for adolescent depression predicting lower functioning and more psychiatric disorders in young adulthood. Depressive symptoms in adolescence were associated with subsequent heavy smoking and increased use of medically prescribed tranquilizers by women. Depressive symptoms in adolescence predicted greater incidence of accidents in young adulthood. Relationships in young adulthood were also affected, including the reduced ability to have a close relationship with a partner, spouse, or parents (Kandel and Davies, 1986).

Weissman et al. (1999) studied 73 subjects with MDD in adolescence and 37 adolescent control subjects who had no past evidence of depression or other psychiatric disorders. A follow-up was conducted 10 to 15 years later by an independent research team. Their findings included the recurrence of MDD in adulthood along with high rates of suicide and suicide attempts. There were increased rates of both medical and psychiatric hospitalizations. These adults experienced lower levels of educational achievement as well as some levels of psychosocial impairment that included extended time off work because of psychopathology (Weissman et al., 1999).

One concern regarding adolescent depression is the comorbidity of other psychiatric disorders when depressive symptoms are present. In a study by Hoffmann, Petermann, Glaeske,

and Bachmann (2012) that included 140,000 German youth, 62.5% of the adolescents who had depression also had another psychiatric disorder, anxiety being the most common.

Rohde, Lewinsohn, and Seeley (1991) studied a sample of 1,700 adolescents between the ages of 14 and 18. Forty-two percent of the adolescents who had depression also had one or more other mental disorders. Other disorders that showed up in addition to depression were disruptive behavior disorders, anxiety, and substance use disorders, with substance use disorders the most common.

Angold and Costello (1993) reviewed epidemiological studies and found a high rate of comorbidity of other mental disorders when adolescent depression was present. Anxiety disorder was found comorbid with depression from 30-75 % of the time. Oppositional defiant disorder was found comorbid with depression from 21-83% of the time. Attention deficit disorder occurred with depression up to 57% of the time.

Comorbidity has been shown, in a meta-analysis of 45 studies of depression and anxiety, to increase the symptoms of depression and decrease the effectiveness of treatment (Nilsen, Eisemann, & Kvernmo, 2013). In a randomized clinical trial (Young, Mufson & Davies, 2006) conducted with 63 youth ages 12-18, those who were diagnosed with both anxiety and depression had more severe symptoms of depression at the outset of treatment. In addition, their depression did not respond as well to treatment as those who presented with depression only. It is evident that comorbidity of other mental disorders adds to the serious issues depression can cause in the adolescent years.

Taken together, these findings show that depressive symptoms are prevalent in the adolescent population. These depressive symptoms are often found to be comorbid with anxiety, which makes it more difficult to treat. Depression has also been linked to lower academic

performance, substance abuse, suicide ideation and behavior, and mental health issues and other health issues that follow the individual into adulthood.

### **Predictors of Depression**

Depression is a very complex disorder with numerous possible causes. It is theorized that a combination of multiple risk factors is likely to predict the outcome of depression. According to Garber (2006), some markers for depression in childhood and adolescence are fixed, including gender and genotype, and other markers are variable, including parental depression, anxiety, neurobiological factors, personality, negative cognitions, difficulty in self-regulation and coping, stress, and interpersonal difficulties (Garber, 2006).

According to Nes, Røysamb, Reichborn-Kjennerud, Harris, and Tambs (2007), approximately 50% of an individual's vulnerability towards depression can be explained by genetics. This study employed a two-wave longitudinal study of 4393 Norwegian twins between the ages of 18 and 31. The remaining vulnerability can be assigned to individual experience.

Gender is another fixed risk factor predicting depression, females being twice as likely to suffer from depression as males. This ratio was established by Hankin et al. (1998) by analyzing a complete birth cohort of the Dunedin Multidisciplinary Health and Development Study in New Zealand. Subjects were assessed for depression from age 3 to age 21. In this study, gender differences first appear around age 13 and then increase significantly between the ages of 15 and 18 (Hankin et al., 1998).

One of the variable factors that may predict adolescent depressive symptoms is parental depression. Wilkinson, Harris, Kelvin, Dubicka, and Goodyer (2013) report a significant correlation between adolescent depressive symptoms and parental mental health. Data studied was part of the Adolescent Depression Antidepressants and Psychotherapy Trial including 208

clinical youth with MDD. Baseline mental health and the degree of improvement across time were both correlated with parental mental health. Although the direction of the association cannot be assumed, it is still informative how connected an adolescent's depression is to the mental health of the parents.

### **Parenting as a Predictor of Depression**

Parenting factors have also been associated with the onset and maintenance of depressive symptoms in children and adolescents. In a study by Betts, Gullone, and Allen (2009), 44 adolescents between the ages of 12 and 16 years with high depressive symptoms were matched with a similar group of 44 adolescents with low depressive symptoms. High depressive symptoms were correlated with temperament and emotion regulation strategies of the subjects and with a parenting style of low nurturance and high overprotection. Although the direction of influence between depressive symptoms and parenting is inconclusive due to the cross-sectional design of the study, the findings are interesting because they show a link between depression and parenting.

McLeod, Weisz, and Wood (2007) conducted a meta-analysis of 45 cross-sectional studies published between 1985 and 2005 that included child and/or adolescent depression and parenting variables. The children in these studies were between 5 and 18 years old, mostly Caucasian: one study was primarily comprised of Latino children, and five studies were primarily comprised of Asian children. It was found that 8% of the variance in childhood depressive symptoms could be accounted for by parenting. Parental rejection (lack of parental warmth) was more significantly related to child depressive symptoms than parental control (McLeod et al., 2007).

Another study indicates that the lack of parental warmth during childhood represents an important psychological risk factor for the development of depressive disorders. In a longitudinal study by Patton, Coffey, Posterino, Carlin, and Wolfe (2001), 2032 secondary students in Australia were assessed for depression and parenting style. Low parental care was significantly correlated with depression and depressive symptoms. Because of the longitudinal design of this study, it was apparent that parenting practices preceded the onset of the depressive symptoms.

A study by Gaté et al. (2013) specifically looked at the mediating role rumination plays in parenting and adolescent depression. The study included 163 mother-adolescent dyads. Data, in the form of self-report by the adolescents, was collected at approximate ages 12, 15 and 17 years. A significant effect of negative parenting was found on the depressive symptoms of the adolescents, possibly mediated by the rumination of the adolescent. This study affirms the importance of positive parenting practices, such as warmth, as protective against the development of rumination, which has been shown to correlate with depression.

Another parenting factor social scientists have studied in depth is psychological control of children by their parents (Barber, 1996). According to Soenens and Vansteenkiste (2010), psychological control is when the behaviors of parents intrude on the inner life and thoughts of a child. Parents who are high in psychological control often use guilt, shame, and the withdrawal of love as parenting techniques. In a study by Garber, Robinson, and Valentiner (1997), data from 240 mothers and their children were analyzed, finding that maternal psychological control was positively related to depressive symptoms.

A longitudinal study over two years by Albrecht, Galambos, and Jansson (2007) analyzed data gathered from 6 high schools in California that included four major ethnic groups. The



questionnaires were completed during the school years 1987-1988 and 1988-1989. The study began with almost 9,000 students, but due to attrition, 2,850 students finished the final survey. One of the constructs studied was psychological autonomy, which is essentially the opposite of parental psychological control. Although the correlation was small, psychological autonomy predicted lower levels of internalizing behaviors. This study creates a foundation for the current study that psychological control is a predictor of higher depressive symptoms.

Similarly, in the 2012 study by Vinita and Saroj, data from 400 adolescents ranging from age 15 to 19 were analyzed. Not only was parental psychological control positively correlated with all measures on the General Health Questionnaire, more specifically, the perceived parental psychological control was significantly correlated with the mental health of the adolescents.

### **Hope Theory**

Hope is a positive construct that has moved into the forefront of research in recent years. According to Snyder (2002), “Hope is defined as the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways.” The dual components of hope are often referred to as the “will” or agency thinking and the “ways” or pathways thinking. These two facets of hope work in harmony to propel and sustain an individual to an imagined endpoint or goal. High-hope individuals also have the ability to adapt or generate new paths when their original path is blocked.

Hope appears to be similar to other cognitive-motivation constructs. For instance, the “will” component of hope is very similar to self-efficacy and the “ways” component is somewhat similar to optimism. However, there are some basic differences. In a study by Magaletta and Oliver (1999), it was found that hope, optimism and self-efficacy are separate constructs. Hope is more comprehensive than the other positive constructs because it contains an intention element

and a motivation element. Hope is also similar to the construct of wellbeing, the difference being temporal; hope is more future-oriented where wellbeing measures the recent past.

### **Positive Outcomes of Hope**

Current research has shown that hope has many positive outcomes and is an important psychological strength. In a sample of 341 college students (Chang & DeSimone, 2001), hope had a significant influence on secondary appraisal and coping. Hope was also found to be protective for dysphoria, independent of both appraisals and coping.

According to Gilman, Dooley, and Florell (2006), high hope adolescents report significantly higher scores on personal adjustment and overall life satisfaction than youth who experience only average hope. They also found that adolescents who were high in hope experience lower levels of emotional distress. Three hundred forty-one students from sixth grade to twelfth grade were included in this study. Because this study was of cross-sectional design, causation cannot be inferred; it is possible that hope stems from low levels of distress.

A study by Ciarrochi, Heaven, and Davies (2007) specifically looked at three positive-thinking variables considered protective in adolescent psychological development: hope, self-esteem, and positive attributional style. The study assessed these positive variables in association with the outcomes of academic achievement, psychological adjustment, and self-rated well-being. Hope was found to have a more significant effect on school grades than both positive attributional style and self-esteem. Hope was also associated with lower teacher rating for behavior problems in the students. In fact, of all three positive thinking variables, hope was the only one to show a significant correlation with all three outcomes. From this study it is apparent that hope is a valuable construct in adolescence.

## Hope and Depression

In addition to predicting positive outcomes in adolescence, hope has also specifically been linked to lower levels of both anxiety and depressive symptoms in college students (Arnau, Rosen, Finch, Rhudy, & Fortunato, 2007). In this longitudinal study with 522 college students, high levels of the agency component of hope significantly predicted lower levels of both depressive symptoms and anxiety. It is also interesting to note that a reciprocal effect was not discovered, thus neither depressive symptoms nor anxiety had a longitudinal effect on hope. This finding adds weight to the claim that hope is a resilience trait. It is difficult to generalize these results to the general public because all the subjects were college students. The temporal piece of the study was also quite short with only a month between each wave of the study.

In a cross-sectional study (Padilla-Walker, Hardy, and Christensen, 2011), using data from the Flourishing Families Project, it was determined that hope is protective of the child developing internalizing behaviors. Hope is an important trait that may protect children from depressive symptoms. The implications of these findings are important for those who work with teens, especially with teens who suffer from depression or suicidal ideation. Developing more hope in these adolescents should prove to be a valuable intervention.