

Development of an Empathic, Strong, Resilient Adolescent:

The Association of Perceived Care

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## Abstract

The ability to experience and understand another person's feelings (empathy), to successfully adapt amidst stress (resilience), and to harness and utilize personal skills (psychological strengths) are dynamic qualities influenced by an individual's perception of care from others (i.e., family, friends, teachers, and significant others). However, it is unclear whether different sources of care exert the same influence in the presentation of these qualities, as they are rarely assessed in the adolescent literature. High school students ( $N = 236$ ) from a rural northern community completed a series of online questionnaires. All measures included were previously validated on adolescent samples and have demonstrated to be psychometrically strong. Results from hierarchical regressions showed each source of care accounted for unique variance in the presentation of resilience and strengths, with different figures playing a larger role for the different qualities (i.e., perceived care from friends accounted for the greatest variance in empathy scores, perceived care from teachers accounted for the greatest variance in resilience scores, and perceived care from the family and teachers accounted for the greatest variance in strength scores). The findings underline the importance of considering the broader social environment when promoting healthy development in adolescents and the need for continued research to further clarify the effect of social support on social development.

## Development of an Empathic, Strong, Resilient Adolescent:

### The Effect of Perceived Care

Family figures are the main source of learning and development for youth, and much can still be learned of this dynamic process. In particular, how great an impact does the family have on the social and moral abilities of their children, and does this impact continue through a child's development into adolescence? Such a question also applies to other notable figures in an adolescent's life, as relationships with friends and teachers may be especially important for adolescents. In the present paper, the social and moral abilities of focus are empathy, resilience, and psychological strength, as these qualities have been shown to afford the individual many benefits and are associated with different positive outcomes, both for the individual and the society as a whole. For each of these qualities: 1) an expansive description is given, with focus on the prominent conceptualizations and key behavioural correlates found in the extant literature; 2) the proposed model of development is outlined, with particular emphasis on the role of the family and other notable figures; 3) notable findings pertaining to each quality as it relates specifically to adolescents is provided; and 4) a final summary is given, highlighting the goals of the current study, as it relates to improving the current understanding of the respective quality. Through the extensive discussion of empathy, resilience, and psychological strengths, it will be made clear that although these qualities are thought of as belonging to an individual, their presentation is heavily reliant on the individual's perception of care and connectedness to other people. Finally, we present literature suggesting that the three aforementioned qualities tend to be present in clusters in an individual, and explanations for why this is, focusing on perceived caring as the key determinant. Based on the extensive literature review presented, the rationale and need for the present study should be evident.

## Empathy

### What is Empathy?

Conceptualizations of empathy as a construct have varied greatly. Prominent models in the field have differentially emphasized the cognitive and affective component of this construct. Cognitive theories have emphasized the importance of role-taking, social learning, and imitation for empathic acquisition (Borke, 1971; Mead, 1934). Such theories focus on the thought and awareness of another as central to empathy. For instance, Borke (1971) defined empathy as a cognitive awareness of another person's feelings and can be thought of as affective perspective-taking (Kurdek & Rodgon, 1975). With this definition, empathic awareness was found to be present cross-culturally in very young children, as early as 3-years old (Borke 1971, 1973). The author theorized that such an early presence, must indicate that empathic awareness is a basic human characteristic related to social adaptation. However, affective theorists have pointed to the limited definition of empathy such cognitive theories have and emphasize the experiential component of empathy. Feschbach and Roe (1968) defined empathy as an individual's ability to experience vicariously the affective response of another's feelings (i.e., to feel the same emotion as another). Brain imaging studies have provided greater legitimacy to this process and have shown that individuals share the emotion of others when exposed to their emotion (De Vignemont & Singer, 2006). Other affective theories define empathy as sympathy and compassion for another's position (Coke, Batson, & McDavis, 1978). With these conceptualizations, both awareness and experience are integral to empathetic responding. Such a pattern of responsiveness is thought to provide information about future actions of other people, and serve as motivation for cooperation, prosocial behaviour, and effective social communication (De Vignemont & Singer, 2006). It is important to remember that cognitive and

affective models of empathy do not negate the legitimacy of the other, but simply place greater importance on different components.

More integrative views of empathy have also been proposed, in which affective and cognitive processes are thought to be interdependent, and empathy better understood by assessing both processes (Feshbach, 1976; Hoffman, 1977). However, the dominance of each process varies based on the situation and characteristics of the person (Hoffman, 1977). For instance, Hoffman's (1977) developmental model encompassed affective, cognitive, and motivational components and proposed that empathic response to distress in another is what drives altruistic behaviour. In this model, empathic arousal is proposed to be present in infants, and is transformed as the cognitive capacity of the child matures and takes a stronger role. This is the conceptualization of empathy that is used for the present study.

To even better understand the construct of empathy, it is important to assess its behavioural correlates, both positive and negative. In a meta-analysis conducted by Eisenberg and Miller (1987), empathy was found to have a low to moderate positive relationship with prosocial behaviour and cooperative/socially competent behaviour, with stronger associations found in adult samples versus children samples. More so, perspective-taking has been found to indirectly affect prosocial behaviour, through its effect on empathic emotion (Coke et al., 1978). Affective empathy has also been found to be related to better moral reasoning for both genders (Eisenberg & Mussen, 1978), and acts as a mediator for the effect of peer relationships for higher self-esteem in female adolescent samples (Laible, Carlo, & Roesch, 2004). In terms of the negative correlates of empathy, it has been found to be inversely related to aggressive and externalizing/antisocial behaviour, as the vicarious experience of negative reactions of others is



thought to inhibit negative social behaviours that may cause such experiences (Miller & Eisenberg, 1988).

Based on the literature, it seems evident that developing the empathic capacity of an individual has merit to it, as individuals who are empathic are likely to have a greater capacity for perspective-taking, to better understand what another is feeling, and have a greater drive to help others who are distressed. Such changes in thought, feeling, and motivation can in turn lead to more socially conscious behaviour, which is a primary goal for many engaged in the working with children and adolescents. Such findings naturally lead one to consider the malleability of empathic capacity. Specifically, what facilitates the development of empathic ability and who are the most essential figures for ensuring that development continuously occurs. To explore these questions, we look to the family, as extant literature has shown it to be an especially important domain for empathetic development.

### **Family and the Development of Empathy**

Many aspects of empathy become better developed and integrated with experience and learning. Eisenberg and Miller (1987) theorized that the weak association between empathy and prosocial behaviour in children is due to the fact that affective responses and behavioural reactions become more integrated with age. They theorized that with age, comes greater competence in carrying out altruistic behaviour and better insight in interpreting experienced vicarious emotions and arousal. More so than just age, is the importance of learning, and considering the different sources children may be using to integrate information.

With children, the greatest source of learning is through parental practices. Research in this area, has looked at the qualities and practices that parents have, which may hinder or help

develop the empathic abilities of their child. Research in this area has looked at the stark contrast between parents of empathetic and unempathetic children, pointing to the importance of parents as sources of personal development. Not surprisingly, enactment and receipt of physical abuse is negatively related to empathy (Miller & Eisenberg, 1988). Specifically, abusive parents were found to score lower on indices of empathic responsiveness, and children who were victims of abuse demonstrated less empathy than those with no such history. These authors theorized that abusive parents are less likely to understand their child's feelings or distress, less likely to engage in perspective-taking with their child, and less likely to encourage positive social behaviour in their child. This idea of the parents' inability for empathic responsiveness being related to the child's social and emotional dysfunctions has been examined, and this deleterious relationship has been further expanded. Abusive parents have been found to interact less with their child; be punitive, rigid, and more aggressive in their interactions with their child; be unresponsive to the needs of the child; and tend to be less prosocial to their child and spouse (Bousha & Twentyman, 1984; Burgess & Conger, 1978; Letourneau, 1981; Wolfe, 1985). Also, although abusive parents are more likely to report stress-related symptoms (e.g., depression), it was shown that reduced empathy mediated the negative influence of stressful life events and lower socioeconomic status on abusive behaviour (Letourneau, 1981; Wolfe, 1985). As a result, children with histories of parental abuse experience issues with social adjustment, aggressive and antisocial behaviour, and more difficulties forming long-lasting relationships with others (Bousha & Twentyman, 1984; Lamphear, 1985; Straker & Jacobson, 1981). Abuse also has an impact on the social cognitions of the child (Barahal, Waterman, & Martin, 1981), in that abused children tend to believe they are not able to shape their experiences, especially the frustrating experiences; are generally poorer at comprehending social role concepts; are less likely to

engage in perspective-taking; and tend to lack social sensitivity. Such disparities were found even after controlling for IQ and income. The negative relationships mentioned were based on a multitude of measures, from self-report questionnaires, role-play exercises, and naturalistic observations at home, lending further credence to the deleterious effects of dysfunctional parenting.

Alternatively, it is also necessary to look at the positive aspects of parent-child relationships and parenting behaviour that may help foster a child's empathy. Firstly, empathetic children tend to have a secure attachment to their parents and peers (Laible, 2007), with attachment theorists positing that prosocial and sympathetic behaviour are products of the attachment caregiving system (Mikulincer & Shaver, 2005). More so, this interaction between empathy and attachment is thought to be mutual, reciprocal, and sustaining in nature (Feshbach & Feshbach, 1982). It is believed a child is more likely to be a sympathetic figure in someone else's life, if they had a caregiver who was supportive during times of distress (Laible, 2007). This security is related to the child being more emotionally aware, more sympathetic, more prosocial, and expressing more positive affect generally (Laible, 2007). In terms of parenting behaviour, it was found that highly empathic adolescent boys had mothers who encouraged discussion when solving problems, were nonpunitive, non-restrictive, egalitarian, maintained affectionate relationships with their sons, and set high-standards for how their son should present himself to others (Eisenberg-Berg & Mussen, 1978). This active discussion may be especially important, as conflicts do often arise between adolescent and parent (Alexander, 2001). Adolescents who are able to engage in compromise during conflicts are in turn more likely to engage in perspective-taking and be empathetic in their attempts at resolution (Alexander, 2001).

### **Empathy in Adolescents**

Based on the literature, it seems that parental behaviours and values are often perpetuated in the child. If the parent teaches the value of perspective-taking, of considering feelings before acting, the child is likely to enact such values in their behaviour as well, which will further develop and be reinforced by the parent as the child proceeds to adulthood. Therefore, it seems logical that an adolescent perceiving care from important figures in their life, would perpetuate the act of caring for others, as the child identifies with these important figures. Furthermore, the literature suggests that the quality of the relationship or attachment between adolescent and parent is essential to the development of empathy in youth. In fact, Yoo, Feng, and Day (2013) found that it was an adolescent's perceived balanced connectedness with their parents (i.e., balanced closeness and autonomy), that directly affected their ability to empathize and engage in prosocial behaviour, whereas parental behaviours, in of itself, did not. Parental behaviours only had an effect on an adolescent's ability to empathize, if mediated by the sense of balanced connectedness. Specifically, parental behaviours such as respecting and validating the child's opinions, as well as inquiring about the adolescent's activities and whereabouts, facilitated this connectedness, which facilitated empathy development.

Thus far, the focus of external learning has been on the home and family, but adolescents may utilize information from their school setting in developing a socially responsible empathetic identity. Most relevant, is the interaction and perception the adolescent has of their peers and teachers. Positive perception of school culture was found to predict higher levels of empathy in secondary school children (Barr & Higgins-D'Alessandro, 2007). School culture was measured as 1) the quality of relationship between student and peer, in that these relationships are positive and respectful; 2) the quality of relationship between student and teacher, in that these

relationships fostered a sense of fairness and belonging in the student; 3) the student's satisfaction with the school's structure, rules, and policies; and 4) the student's perception of the kind of education they receive at their school. A gender effect was found, such that male students with higher emotional concern perceived peer relationships more positively than those with lower levels of emotional concern. Emotional concern, defined as "other-oriented" feelings of sympathy, is commonly measured as a dimension of empathy (Davis, 1980).

Although research looking at the development of empathy is rarely done specifically in adolescent, longitudinal studies have shown that empathy is both a stable and continuously developing trait. In high school students, Davis and Franzoi (1991) found considerable year-to-year stability in empathy, although there were certain increases and decreases for features of empathy. Specifically, increases in perspective-taking and empathic concern, and decreases in personal distress ("self-oriented" feelings of personal anxiety in tense interpersonal settings). Such findings have mostly been replicated, with other longitudinal studies showing that perspective-taking continues to develop into early adulthood (i.e., mid-20's; Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005), and that stronger increases take place for girls than for boys (Mestre, Samper, Frías, & Tur, 2009; Van der Graaff et al., 2014). The increase of perspective-taking with age is thought to reflect the youth's growing ability to consider both their own and others' perspectives simultaneously (Selman, 1980), and the maturation of the brain in relevant regions that occurs during this time (Crone & Dahl, 2012). The greater ability and increase of perspective-taking in girls is thought to reflect the fact that cerebral cortical development occurs earlier for girls (Colom & Lynn, 2004), and that gender role expectations are strengthened during puberty (Pettitt, 2004). Similarly, decreases in personal distress were found to continue into early adulthood, which authors posited likely reflect the age-related growth in

regulatory skills, and the growing ability to modulate personal overarousal and affect (Eisenberg et al., 2005). Such a pattern of development is in line with Hoffman's (1977) theory that posits that the cognitive components of empathy develop and play a more central role of empathic behaviour as the individual matures, and that a shift occurs whereby distress incited by a situation turns into empathic responding, rather than personal distress.

### **Summary**

In the current study, we further studied the effect of perceived caring in relation to the empathic ability of adolescents. Based on the literature described, we hypothesized that perceived caring would be related to greater empathic ability, as such individuals would likely be more socially aware of others and be better equipped to engage in empathic behaviour. This improved empathic ability reflects having positive models and confidants to whom one can turn to during times of distress. We hypothesized that the family would be the most important source of support, as the literature is most established in this domain. However, connection or care from friends and teachers was thought to be important and assessed also. Perceived care was assessed using the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) and the Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993), which together are able to assess an adolescent's perception of care from the family, friends, a significant other, and teachers. Empathy was assessed using the [Basic Empathy Scale \(BES; Jolliffe & Farrington, 2006\)](#). [This measure was favoured over traditional methods of empathy, such as the Hogan Empathy Scale \(Hogan, 1969\), the Questionnaire Measure of Emotional Empathy \(Mehrabian & Epstein, 1972\), and the ever-popular Interpersonal Reactivity Index \(Davis, 1980\), because of its dual emphasis on affective and cognitive empathy, and its clear delineation of empathy from sympathy, which older measures tended to obfuscate.](#) In

summary, the current study aimed to replicate the relationship between perceived care and empathy and further explored whether this relationship varied in strength as a function of source of perceived care.

### **Strength and Resiliency**

Besides promoting empathy in children, parents are also entrusted to instill a sense of strength and resiliency that may endure during times of stress and happiness in the child's life. Much like empathy, strength and resiliency are not stable traits, but rather processes and perspectives that can change with experience (Masten, 2001). The areas of research looking at strength and resiliency are both relatively small but are gaining traction in the field. However, due to the complexity and changing nature of both constructs, no single conceptualization of either construct exists among scholars. As each of these constructs is fairly complex, the different theoretical perspectives may provide greater information on each construct. The conceptualizations and developmental process of both constructs are reviewed in turn.

#### **What is Resiliency?**

Resiliency is the process of, capacity for, or outcome of successful adaptation amidst experience or circumstances of adversity (Masten, Best, & Garmezy, 1990). In particular, high-risk situations, sustained stress, and traumatic events are commonly assessed in children when assessing for this phenomenon (Masten et al., 1990). While reviewing the resiliency literature, Luthar, Cicchetti, and Becker (2000) identified three prominent models of resiliency that helped guide current research. Each model emphasizes personal developmental and the dynamic process of resilience throughout the lifespan.

The first model interprets resiliency not as a trait exclusively within the individual, but as an interaction of protective and vulnerability processes across contexts of the individual, the family, and the wider social environment (Masten & Garmezy, 1985). When looking at the context of the individual, children identified as resilient had temperaments that elicited positive responses from others and had different qualities throughout their lifespan development compared to that of non-resilient children (Werner, 1997). This suggests that resilience permeates as an individual develops, taking on different characteristics in an individual's lifespan. Using a longitudinal approach, Werner (1997) found that as infants and toddlers, resilient children were affectionate, active, and overall, good-natured. By preschool, these children had coping abilities centered on both autonomy and asking for assistance when needed. These children would later be recognized by elementary teachers for their problem-solving skills, communication abilities, and ability to effectively use their talents. By adolescence and adulthood, such children were described as outgoing, autonomous, nurturant and emotionally sensitive. When looking at the context of family, resilient children had formed a close bond with a stable caregiver and had gained a basic sense of trust (Werner, 1997). Furthermore, such children tended to come from families that held religious beliefs, with these shared beliefs bringing stability and cohesion to its members. Sex differences were found for male and females. Specifically, boys benefited from having structures and rules in place, as well as encouragement for emotional expressiveness, whereas girls benefited from having independence and risk-taking promoted in the household. Both boys and girls found a caregiver of the same sex to identify with, which if not the parent, was a substitute caregiver such as a grandparent or older sibling. When looking at the context of the community, resilient children had neighbours, friends, teachers, or youth workers to whom they could look upon as role models and form lasting



relationships with. These children made school a home and gained opportunities during adulthood that helped them obtain better circumstances, such as participation in community organizations, marriage, and employment. With this model, the dynamic nature of protective and harmful factors is emphasized, with resilience strengthened through different internal and external factors.

The second prominent model is the ecological-transaction model of resiliency, which focuses on the multiple levels of a child's ecology and how they influence each other, as well as the development of the child (Cicchetti & Lynch, 1993). By order of greatest to least distance to the individual, this ecology includes culture (macrosystem), community (exosystem), family (microsystem), and previous development (ontogenic development). Risk factors may exist at each level of the ecology and may also influence surrounding levels of the ecology, often in a downward potentiating fashion. The emphasis with this model is that all contexts interact with the individual, and it is these transactions that ultimately shape whether the individual is resilient. For example, violence prevalent in the community is likely to contribute to parental violence, and if such events become commonplace, it becomes integrated into the culture of both the abusive parent and the abused child. This theory involves primarily looking at risks of children, especially family poverty and violence.

The third prominent model is the structural-organizational model, which posits that active individual choice and self-organization are the major determinants of development (Cicchetti & Tucker, 1994). This model emphasizes the personal process of resilience and the coherent nature of competence development over time: each individual has an inherent tendency to self-right their circumstances or deficits, and the manner to which this self-righting process occurs varies for each individual (Cicchetti & Rogosch, 1997). For instance, in children born in poor families,

different predictors of resilience emerged based on whether the particular child was also maltreated (i.e., abuse or neglect). Specifically, relationship factors (i.e., perceived emotional availability of the mother) were more critical to resilient outcome in non-maltreated children, whereas personality characteristics and self-system processes (i.e., ego-resilience, ego-overcontrol, and positive self-esteem) were more critical in maltreated children. This model does not negate the influence of circumstances, past events, or relational influences, but rather, places the greater emphasis on the individual for personal development.

Each framework reviewed thus far emphasized the dynamic nature of resiliency and the fact that it is ever-changing based on experiences with others. Resiliency is a dynamic complex construct, with development dependent on an individual's traits, the transactions an individual makes with their environment, and the individual's culture and social network.

### **Resiliency in Families**

As outlined in the prominent conceptual models, resiliency is a dynamic process that encompasses many external influences. With children and adolescents, the external influence of focus tends to be on the family, as familial support has been found to be a robust protective factor against stressors and psychopathology in a wide range of adolescent samples (Carlton et al., 2006; Collishaw et al., 2007; Masten et al., 1999; Resnick, Harris & Blum, 1993). More so, parenting resources have been found to predict competence in academics, conduct, and social domains, even in adolescents who have severe, chronic adversity (Masten et al., 1999). However, the conceptualization of familial social support in its relation to resiliency is complex, as outlined by Armstrong, Birnie-Lefcovitch, and Ungar (2005). According to these authors, social support has a main and buffering effect, that facilitates social integration among its members, and buffers against stressors, by providing emotional and esteem support, concrete aid, and help with

problem solving, respectively. Social support has implications for the parent's emotional well-being and the quality of their parenting, which not only affects the functioning of the family as a whole, but also the competence and self-esteem of the child. Competence and self-esteem are thought to be the key determinants of resiliency in this model, as it reflects the confidence and skill set in the child to engage in resilient behaviour amidst adversity. Personal characteristics of the parent and child are theorized to alter the ability to engage in social support, as the emotional stability and sense of autonomy in the parent can affect their ability to support others. Based on this model, it is clear, that family functioning in its relation to the development of resiliency in children is a dynamic process, to which much information can still be gained, especially from the perspective of the child or adolescent.

### **Resiliency in Adolescents**

The literature on resiliency is growing, but studies focusing on resiliency specifically in adolescent populations are sparse, and when done, have considerable cross study variation in the definition or conceptualization of resilience used to guide it (Olsson, Bond, Burns, Vella-Brodick, & Sawyer, 2003). Resiliency research on adolescents can be organized based on what area the particular study focused on, whether resiliency is operationalized as a psychosocial outcome defined by a particular risk setting, or as a certain protective mechanism that facilitated the process of successful adaptation (Olsson et al., 2003). The focus of the current study was an amalgamation of the two areas, in that we were interested in the mechanisms that may promote the quality (or outcome) of resilience in adolescents. We believed this study would provide information as to the developmental process by which young people successfully adapt to stressful situations and add to the existing literature regarding resilience in adolescents.

Previous research in resilience has helped to identify the characteristics and factors in adolescence that affect functioning in adulthood and can be thought of as protective and risk factors for psychopathology and deviant behaviour. Abuse, maternal mental illness, and family adversity experienced during childhood are risk factors for mental illness and suicidal behaviour during adulthood (Collishaw et al., 2007). Abuse and deviant peers are of central importance in the development, maintenance, and amplification of antisocial behaviour as a child progresses through to adulthood (Dishion & Patterson, 2006). However, negative outcomes are not the automatic result of childhood trauma and poor social models alone, and in one study, a substantial proportion of abused children (44.5%) had no such problems when assessed 30-years afterwards (Collishaw et al., 2007). Certain proponents in the field argue that resilience has been underestimated in people and is a fairly common response to adversity (Bonanno, 2004). Individual level characteristics (e.g., strong self-regulation; Gardner, Dishion, & Connell, 2008) and strong social supports also need to be considered when understanding resilience. Having strong peer relationships, familial support, and a stable first romantic partner were found to be protective factors for externalizing and internalizing disorders, even in sexual and cultural minority groups (Carlton et al., 2006; Collishaw et al., 2007; DiFulvio, 2011). Such findings emphasize the importance of social support and social connectedness, as youths' perception of care within a context can affect their response and outcome in response to adversity (DiFulvio, 2011). In fact, it can be argued that psychopathology should not be seen as simply an issue residing within the individual, but as a response to social disconnect (DiFulvio, 2011).

Social connectedness and support is relevant for other stressful events that occur in an adolescent's life. For adolescents of a sexual minority group, who typically suffer poorer health due to stigma, discrimination, and harassment from others (DiFulvio, 2011; Saewyc, 2011),

having a supportive relationship with family, friends, and notable other adults, such as teachers and coaches were related to more resilience and positive development (Blum, McNeely, & Nonnemaker, 2001). In addition, connectedness to school and involvement in gay-related organizations and support groups have been found to lead to less maladaptive coping (e.g., drug use) and better development in these individuals (Blum et al., 2001; Rosario, Schrimshaw, & Hunter, 2004). The protective influence of school connectedness, specifically, perceived caring and fairness by a teacher for health behaviours has been demonstrated in general populations as well (McNeely & Falci, 2004). In middle and high school students, it was found that perceived teacher support prevented the initiation of different health-risk behaviours (i.e., cigarette smoking, alcohol use, marijuana use, suicidality, risky sexual behaviour, and weapon-related violence). Finally, family and peer support has also been found to be relevant for body image resilience, which may be particularly relevant for adolescent girls who face societal pressure to look a certain way (Choate, 2007; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). It was cited as important for adolescent girls to experience approval within their support network for their appearance and to feel valued for achievements unrelated to appearance.

### **Summary**

In all the prominent areas of adolescent resiliency research discussed, familial support and connectedness with other figures were protective factors associated with positive outcomes (e.g., greater physical and mental health, less enactment of antisocial behaviour). However, viewing any single risk factor or protective factor as causal for a particular outcome is overly simplistic and short-sighted. Similarly, looking at the quality of any single relationship the adolescent is engaged in, would be overly restrictive. When looking at the facilitative mechanisms of resilience in adolescents, Olsson and colleagues (2003) stressed the importance

of investigating the interaction between risk and protective factors of varying degrees of impact, and risk situations at varying points in development. Protective factors should be studied at multiple levels. Namely, within the adolescent, within the family and peer network, and within the school or community environment. In general, resiliency tends to be studied as an individual-level resource (Olsson et al., 2003), which is unfortunate, as the protective function of caring and connectedness in adolescents has been shown to be a robust protective mechanism, particularly the connectedness to family and to school (Resnick et al., 1993).

The current study aimed to improve the understanding of adolescent resiliency as it relates to perceived caring and social connectedness. To assess resilience, the [Connor-Davidson Resilience Scale \(CD-RISC; Connor & Davidson, 2003\) was used](#). The creators of this measure defined resilience as the, “personal qualities that enable one to thrive in the face of adversity” (p.76), with items on the measure reflecting empirically-determined characteristics of resilience (e.g., [adapting to change, gaining confidence from past successes, seeing the humorous aspect of things](#)). We hypothesized that perceived care from different important figures (i.e., family, peers, teachers) would each be related to greater resilience. We were interested to see whether perceived caring from certain figures would prove more crucial and account for greater variance. In addition, we were also interested in the buffering effects of perceived care as previously described by Armstrong and colleagues (2005). In line with this work, we believed that [perceived care would moderate the relationship between stress and resilience. This has been demonstrated in Alzheimer’s disease caregivers, social work students, and very young children \(Criss, Pettit, Bates, Dodge, & Lapp, 2002; Wilks, 2008; Wilks & Croom, 2008\), where stress negatively affected resilience, social support positively affected resilience, and social support moderated the relationship between stress and resilience. In 5-year old children, it was found](#)

that the quality of peer relationships moderated the effect of family adversity on externalizing behavioural problems, such that if the child had high levels of positive peer relationship, no relationship between family adversity and externalizing behaviour existed (Criss et al., 2002). However, this moderating effect of perceived care has never been explored in adolescent samples. To do this, the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermestein, 1983) was included, which acted as a measure of perceived global stress. Thus, the current study was undertaken to assess both the direct and indirect effects of perceived care as it relates to resiliency in adolescents.

### **What are Strengths?**

Similar to resilience, psychological strengths may also be looked at in regards to multiple contexts, and as a function of relationship quality. Psychological strengths are the psychological competencies and characteristics of a person, which may be gained from both experiences of adversity and normal everyday experiences (Allison, Stacey, Dadds, Roeger, Wood, & Martin, 2003). Psychological strengths tend to be characterized as character strengths inherent within the individual (Khan & Husain, 2010; Park, Peterson, & Seligman, 2004; Peterson, Ruch, Beermann, Park, & Seligman, 2007). For example, hope, love, curiosity, zest, optimism, gratitude, perseverance spirituality, and self-efficacy have all been identified as character strengths (Khan & Husain, 2010; Park et al., 2004; Peterson et al., 2007). These character strengths, both the possession and use of these strengths, have been found to be predictors of different measures of well-being and life satisfaction, although the specific strengths which act as the best predictors tend to vary by study (Park et al., 2004; Peterson et al., 2007; Wood, Linley, Maltby, Kashdan, & Hurling, 2011). Those who utilize their personal strengths tend to have higher self-esteem, experience less stress, have greater vitality, and have generally positive affect (Wood et al.,

2011). More so, this relationship was found to be stable across six months, and it was suggested that the use of strengths could be a longitudinal predictor of well-being. In addition, individuals who possess and utilize their strengths tend to have a greater orientation to pleasure, to engagement, and to meaning, leading to a more fulfilling life and greater appreciation of the world as a whole (Huta & Hawley, 2010; Peterson et al., 2007).

Strengths have also been assessed in clinical settings and have shown to be of vital importance for successful treatment design and faster recovery time. For example, the strength of hope, appreciation of excellence, and spirituality were found to predict post-treatment recovery from depression in a clinical population better than that of vulnerabilities, suggesting that a deficit-based approach to treatment is overly limited (Huta & Hawley, 2010). In fact, it may be most beneficial and informative to assess for strengths and vulnerabilities in conjunction, as they interact in different ways for different individuals. Using a clinical sample, Huta and Hawley (2010) found that strengths buffer people from the detrimental effects of their cognitive vulnerabilities (i.e., negative affect and depression); however, vulnerabilities do not undermine the beneficial effects of strengths for well-being and recovery. In fact, strengths were found to be especially important among those with high vulnerabilities.

Although the focus of strengths in a clinical setting tends to be on the individual suffering from a disorder, attention has also been given to clinicians who care for these individuals, as vicarious trauma is a risk for these professionals (Bell, 2003). It was found that a sense of competence in coping with stress, drawing on early positive role models of coping, having buffering personal beliefs, and maintaining objective motivation in their work all prevented symptoms of secondary trauma in counsellors of battered women (Bell, 2003). Other professionals characterized by high stress have also been assessed and results further point to the



importance of strengths for adapting to such an environment. For correctional officers, locus of control and affect were related to occupational stress (Botha & Pienaar, 2006), and for police officers, sense of coherence and self-efficacy was related to suicidal ideation (Rothmann & Van Rensburg, 2002). Strengths, in particular, a sense of self-efficacy, may be especially important for active coping and planning of strategies in problem-solving, regardless of the problem (Rothmann & Van Rensburg, 2002). Self-efficacy refers to the self-beliefs an individual has regarding their ability to carry out certain behaviours (Bandura, 1989). Such a quality may be domain-specific or generalized, reflecting whether the individual's expectation that they are able to perform tasks successfully is only in certain situations or in many varied situations (Eden & Zuk, 1995). However, domain-specific and generalized self-efficacy tend to reinforce each other (Eden, 1988; Gardner & Pierce, 1998). Self-efficacy affects the way a person thinks, acts, and feels (Bandura, 1989). Specifically, self-efficacy facilitates decision-making and academic achievement; facilitates a higher standard of achievement and greater persistence; and when not present, may be associated with feelings of helplessness and pessimism.

The information presented thus far has illustrated that the possession and utilization of different psychological strengths has implications for the well-being of individuals and their life satisfaction. The strengths an individual has affects the way they perceive themselves and others, the method adopted to solve a problem or accomplish a task, and their general happiness.

**Differentiation Between Strengths and Resilience.** Given that psychological strengths also have implications for whether individuals cope with stress positively, it is important to stress that strengths and resilience are intertwined but separate constructs. Resilience has always been defined in relation to experiences of adversity, although it is still unclear as to whether characteristics of resilience are present before adversity and protect against problems post-

trauma or if resilience are characteristics borne out of having experienced adversity (Connor & Davidson, 2003). However, psychological strengths are intrinsic to the overall experience of development and growth and are not contingent upon having experienced trauma (Rawana & Brownlee, 2010). The confusion likely lies in the fact that certain psychological strengths are relevant for adaptive responding amidst stress (McQuaide & Ehrenreich, 1997). Hardiness and empowerment are key examples of this.

Hardiness is commonly defined using Kobasa's (1979) classical work and entails four dimensions: 1) a stronger commitment to the self (i.e., a clear sense and belief of importance in personal values, goals, and capabilities); 2) an attitude of vigorousness towards the environment (i.e., engagement with the environment to bring about change); 3) an internal locus of control (i.e., seeing the self as an active determinant of the circumstances of one's life); and 4) a sense of meaningfulness (i.e., one's own actions bring about important change in one's life). Hardiness is related to many positive outcomes, such as health-promotion behaviour (Park, Lee, Park, Ryu, Lee, & Chang, 2000), happiness in retired populations (Sharpley & Yardley, 1999), and sport achievement and psychological well-being in athletes (Nezhad & Besharat, 2010). Such findings demonstrate that hardiness is relevant for general functioning. However, it has also been demonstrated to be a quality relevant for resilience amidst adversity. Hardiness has been studied in professional realms and has been found to protect against professional burnout and reduce the severity of negative consequences (physical, psychological, professional, social) of burnout should it occur (Kareaga, Exeberria, & Smith, 2008). It is also related to less psychological symptoms and more positive mood in those who work in trauma-care (Hodgkinson & Shepherd, 1994). Consequently, three of the elements of hardiness (with the exception of meaningfulness) are translated as items on the CD-RISC. Creators of the scale cited the protective function of

hardiness for mental health and the development of PTSD in war veterans (King, King, Fairbank, Keane, & Adams, 1998; Maddi & Knoshiba, 1994; as cited in Connor & Davidson, 2003) as justification for inclusion on the scale.

Empowerment is similarly a multidimensional construct and entails a sense of meaning or purpose (i.e., ones work and one's beliefs match); competence (i.e., one has a sense of mastery in one's role in society and life generally); self-determination (i.e., one has personal control over their own work); and impact (i.e., one has personal control over organizational outcomes; Cowen, 1991; Thomas & Velthouse, 1990). Each of the dimensions provide valuable information on an individual and their motivations and well-being (Deci & Ryan, 1985, 2000; Spreitzer, Kizilos, & Nason, 1997). Empowerment is particularly relevant for children and their functioning at school. Much of the literature regarding empowerment in adolescents assess the impact of competence and self-determination. It has been found that these two qualities are related to higher self-perceived and teacher-rated academic competence (Fortier et al., 1995; Grolnick et al., 1991), optimal learning strategies (Yamauchi et al., 1999), and higher grades (Black & Deci, 2000). When structural equation modelling is done, results show that competence and self-determination positively influence academic motivation, which in turn leads to higher academic performance. Although these two qualities are important across the lifespan, Cowen (1991) purported that competence may be particularly important to foster during childhood, as doing so may instill in the child a belief that they have a sense of control over their own fate and lead to a general sense of empowerment as they develop. Having this sense of empowerment is especially important in environments that deprive individuals of power and opportunity and in the face of stressful events, as it can lead individuals to take action to improve their situation (Gutierrez, 1994). The protective function of empowerment has been found in adult samples

characterized by high stress (e.g., nurses, teachers, parents of psychologically disordered children) and the general public, in which empowerment is related to greater satisfaction, less stress, less job-related strain, and greater sense of self-efficacy to engage in treatment (Lautizi, Laschinger, & Ravazzolo, 2009; Pearson & Moomaw, 2005; Scheel & Rieckmann, 1998; Spreitzer et al., 1997).

Psychological strengths have implications for general functioning as well as for adaptive responding amidst stress, whereas resilience has implications for only the latter aspect. Now that the construct of psychological strength has been clearly defined and differentiated from the related construct of resilience, we will explore the different life domains relevant for its development. The home environment and family are the first focus, as the strengths an individual has is often a reflection of the strengths their family has.

### **Strengths within Families**

Although the focus of strength research is on the individual, strengths may also be relevant for groups of individuals and their collective well-being. An area of which this collective strengths and well-being has been assessed is in the context of families. Although there tends to be a focus on the negative aspects of family functioning and its effect on children, family life with young children and adolescents tends to be quite positive, with families reporting high levels of closeness, happiness, concern, caring, and interaction despite stresses of daily life (Moore, Chalk, Scarpa, & Vandivere, 2002). Much information has been gained as to how families and its constituent members function using this focus on strengths. It has been found that family functioning is largely dependent on the strengths and appraisals of its members (Lustig & Akey, 1999), and the strengths within the family will in turn be relevant for the child's well-being (e.g., life satisfaction, self-esteem, sense of mastery; Moore et al., 2002; Shek, 2010),

their school adjustment (Shek, 2010), occurrence of problem behaviour (Shek, 2010), as well as the strengths the child possesses (Togari et al., 2012). In this way, understanding the strengths of the individuals, requires an understanding of the family as a whole. Khan and Husain (2010) found that it was a solid social support network (family, friends, and other notable others) which moderated the relationship between strengths and well-being. This further points to the importance of studying groups or networks, and the way they function, to better understand the individual.

As part of the Circumplex model, Olson (2000) proposed that a balanced family system, as focused on the three dimensions of cohesion, flexibility, and communication, tend to be most functional. The family's sense of coherence, which is the extent to which its members see the world as comprehensible, manageable, and meaningful (Antonovsky & Sourani, 1988), has also been found as central to successful coping and adaptation with different family stressors. This sense of coherence was related to satisfaction with intrafamily and family-community fit in disabled Israeli males and their spouses (Antonovsky & Sourani, 1988), with family and marital functioning for individuals transitioning to parenthood (Ngai & Ngu, 2016), and with better adjustment in parents of adult children with intellectual disability (Lustig & Akey, 1999). Other components of family adjustment such as social support, family adaptability, have also proved relevant for predicting well-being of its members (Lustig & Akey, 1999).

In terms of strength and well-being of the children within families, the literature is sparse, however, existing findings point to the importance of parents' strength and relationship as key factors. For example, the sense of coherence found in mothers was directly related to the sense of coherence found within her children, regardless of the sex of the children (Togari et al., 2012). It was also found that a mother's sense of coherence was related to greater participation in

decision-making at home for girls in a Japanese sample (Togari et al., 2012). Furthermore, the quality and stability of parent's relationship with each other was related to the child's security of attachment and dependency (Howes & Markham, 1989)

### **Strengths within Adolescent**

When strengths are studied specifically in adolescent populations, it tends to be done in a clinical or at-risk population experiencing adverse life events, which undermines the fact that strengths are relevant for daily life and need not be related to major stressors. For example, Lyons, Uziel-Miller, Reyes, and Sokol (2000) assessed those in residential placement, with many on child welfare, and found that level of strengths was associated with psychopathology symptoms, risk behaviour, functional level, and dispositional outcomes (Lyons et al., 2000). The most common strengths found in this sample was a sense of humor, the ability to enjoy positive life experiences, and having a strong relationship with a sibling. Although these authors assessed strengths in multiple domains (i.e., family, school/vocational, psychological, peer, moral/spiritual, and extracurricular), due to the nature of the sample and the restrictive nature of residential placements from community, certain strengths were of less importance (i.e., family, spirituality). However, strengths from the school and community involvement have been found to be protective factors for substance use among adolescents in other studies (e.g., Harris, Brazeau, Rawana, Brownlee, & Klein, 2017). Alternatively, many individuals with severe psychopathology had notable strengths (Lyons et al., 2000). Certain strengths (hope, enthusiasm, humor, and forgiveness) have been found to contribute to negative affect and symptoms of depression in adult samples (Huta & Hawley, 2010), as well as to well-being (Valle, Huebner, & Suldo, 2006), demonstrating the complexity of strengths.

When strengths have been assessed in healthy community adolescent samples, the literature points to the importance of looking at different domains of strength (i.e., within the self and within relationships/different environments). In respect to strengths within the self, self-compassion, the ability to view one's suffering with a sense of warmth, connection, and concern (Neff, 2003) has been empirically demonstrated to be related to different aspects of well-being in adolescents (Neff, 2009; Neff & McGehee, 2010; Neff & Vonk, 2009). Self-compassion entails self-kindness, the ability to treat the self with care instead of judgement; common humanity, the perception of experiences as part of the human experience rather than as isolating events; and mindfulness, the view of the present moment through a balanced accepting perspective. It has been found to be related to happiness, optimism, initiative, connectedness, and non-contingent and stable feelings of self-worth in adolescents. In respect to strengths with a stronger emphasis on others, it was found in ninth and tenth graders that the strengths of building connection to people and having a greater purpose in life were most important for predicting well-being (Gillham et al., 2011). Specifically, other-directed (e.g. teamwork), and transcendence (e.g. finding meaning) strengths predicted fewer depressive symptoms, and greater life satisfaction, respectively. More so, social support partially mediated the relationship between strengths and depression and has been previously found to have a moderating effect between strengths and life satisfaction (Khan and Husain, 2010).

### **Summary**

Much is still unclear on the nature of strengths, as research does not support the overly simple notion that strengths are exclusively related to well-being, and cognitive dysfunctions only to mental illness. It is also not clear as to the stability or development of strengths, although there is preliminary evidence to suggest that certain strengths (e.g., hope, self-worth) remain

fairly stable over multiple years of adolescence (Marques, Pais-Ribeiro, & Lopez, 2011). Of relevance to the current study is the presentation of different strengths during adolescent, and whether variability arises due to differences in perceived care from notable figures, such as the family, friends, teachers, and significant others. Strengths evolve with time, are highly contextual, and dynamic (Biswas-Diener, Kashdan, & Minhas, 2011). In the current study, we further explored the effect of perceived care on the presentation of strengths in a healthy community adolescent sample. Much of the literature on psychological strengths tends to look at the possession of strengths despite adversity and utilize vulnerable sample groups, yet it can, and is developed through everyday experience. More information is needed to understand the development of strengths and the degree of importance relationship qualities play in such a development. To do this, [the Strength Assessment Inventory-Youth Version \(SAI:Y; Rawana & Brownlee, 2010\) was utilized. Authors of this measure defined strengths as the “set of developed competencies and characteristics embedded in a culture and are valued both by the individual and by society.” \(p.10\) The measure assesses strengths as a function of life domain \(e.g., at home, at school, within the community\), and was chosen for inclusion in the present study because of its dual emphasis on positive qualities within the individual and their environment and because of its clear delineation between strengths and resilience during item development. In addition, as we have included a measure of stress \(i.e., Perceived Stress Scale\), which is one marker commonly used in assessing well-being \(e.g., Wood et al., 2011\), we will be able to study the association between strengths and well-being, and whether perceived care may moderate this relationship, which the literature suggests \(Khan & Husain, 2010\), but needs to be further replicated in adolescent samples.](#)

### **The Relationship Between Empathy, Strength, and Resiliency**



The review presented clearly shows that the qualities of empathy, strength, and resiliency each have demonstrable effects on mental well-being and social functioning. More so, these qualities tend to correlate in an individual, and its co-occurrence has most commonly been found while studying stress and the effect of hardship (Kinsella, Anderson, & Anderson, 1996; Parker, Cowen, Work, & Wyman, 1990). In a retrospective study design, adult offspring of individuals with mental illness, reported having a stronger sense of self-reliance, resiliency, and empathy from the experience (Kinsella et al., 1996). Empathy was the most commonly identified outcome of the participants in this particular study, with individuals expressing that their hardship promoted a non-judgemental attitude and the value of putting oneself in another's shoes. Many also expressed the fact that surviving their traumatic childhood history promoted a sense of confidence in being able to handle future life difficulties, demonstrating the construct of resiliency. Similarly, in 4<sup>th</sup>-6<sup>th</sup> grade urban children, those who managed stress in a resilient manner also proved to be more empathic, and unsurprisingly, demonstrate better problem solving and coping strategies (Parker et al., 1990). Furthermore, these three qualities are also related in that they are greatly affected by relationship quality with others.

### **Caring**

Empathy, resilience, and strengths are commonly thought of as qualities residing within an individual, however, their presentation and development are greatly dependent on the presence of caring others. The perception of caring, particularly from the family, can engender caring in adolescents, through the promotion of attachment, prosocial behaviour, peer relationships, empathy, agency, and self-control (Chase-Lansdale, Wakschlag, & Brooks-Gunn, 1995).

More so, the perception of caring tends to be a fairly stable quality within an individual (Levitt, Guacci-Franco, & Levitt, 1993), underlining the importance of creating strong relationships with a child early in their development. In line with certain attachment theories, it has been posited that so long as the family environment remains fairly stable, basic relational patterns of the child will remain fairly consistent across development (Sroufe, 1979). This theory has been demonstrated empirically, as a child's relationship quality with their mother was found to be stable across 8 years (i.e. from age 1 to 9), and this relationship quality was predicted by attachment security as a toddler (Howes, Hamilton, & Philipsen, 1998). A similar pattern was found in reference to a child's relationship quality with their teachers and friends, such that attachment security with a teacher, and the formation of close friendships during toddler and preschool ages would predict the quality of teacher relationships and friendships at 9 years of age, demonstrating continuity of relationship patterns (Howes et al., 1998). Such a stability in perceived social support has been demonstrated in grade and high school students (Levitt et al., 1993), and in undergraduate samples as well, where parental care was found to be a predictor of different social support indices (Sarason, Sarason, & Shearin, 1986).

Although perceived social support and relationship quality may remain fairly stable, that is not to say that as children develop, different relationships do not take precedence. In a culturally diverse sample, it was found that a close family relationship was important across grades 1 through 9, however, peers would emerge as important support providers during adolescence (Levitt et al., 1993). What seems best for a child, is for them to perceive that they have multiple support sources (e.g. close family members and friends), as such children tend to be better adjusted, more competent, and better at problem-solving than those who must rely on support from only one source (Levitt et al., 2005; Sarason et al., 1986). Taken together, these

different findings point to the importance of establishing and maintaining supportive relationships with children. These findings also point to the importance of looking at different prominent sources of care, as doing so may be a better predictor of child functioning (e.g., how a child empathizes with other people, how a child remains resilient amidst stress, and how a child successfully utilizes their strengths).

In respect to empathy, the act of caring from parents, is related to the child being more emotionally aware, being more sympathetic of others, and engaging in more prosocial behaviour (Laible, 2007). More so, the act of parental caring, as exemplified through active discussions as to the standards in which you treat others, may also be integral to the child's process of handling conflict with others and promote perspective-taking in such situations (Alexander, 2001; Eisenberg-Berg & Mussen, 1978). For adolescents, such discussions may also be had with teachers in dealing with peer conflict. Such discussions provide more opportunity for learning how to engage in an empathic manner with others and may also offer a moment of reflection for the child to gain greater emotional insight into themselves and others.

Caring from parents, other prominent figures, and the community, are also pertinent to the adolescent's process of resilience, as resilient adults typically were children with close bonds to caregivers and other role models (Werner, 1997). In grade-school children, it was found that gender played a role in self-perception of resilience and relationship with others, as females generally reported a greater sense of autonomy and more positive connections with parents, teachers, and peers (Sun & Stewart, 2007). However, reporting of these positive experiences greatly diminished in girls in sixth grade and older, demonstrating an interaction between gender and age on perception of relationships. Parental support has also proved to be a robust protective factor against stress and psychopathology (Carlton et al., 2006; Collishaw et al., 2007; Masten et

al., 1999; Resnick et al., 1993), as it promotes self-esteem and a sense of competence in the child (Armstrong et al., 2005). This may in turn protect the child from future instances in which there is conflict in the family and ensure that the child continues to develop into a caring individual as they have a sense of self-efficacy (Chase-Lansdale et al., 1995). Peer relationships, romantic relationships, and relationships with teachers and coaches have also proved relevant for adolescent resilience (Blum et al., 2001; Collishaw et al., 2007). Such social connections may affirm one's identity, and act as a means of turning personal struggle to collective action (DiFulvio, 2011). The protective effects of such support could be further explored in those who are not going through extreme adversity, as a sense of competence and self-esteem, which caring is thought to foster, is pertinent for all daily life stresses.

The literature on strengths as it relates to caring is particularly sparse, as strengths tend to be looked at within the individual, especially those who have experienced major adversity. However, there is evidence showing that relationships play an important role in strength development and adjustment. Most notably, autonomy-supportive parenting and teaching were related to the self-determination adolescents felt in the domains of school, friendships, and job-seeking behaviour, which was consequently related to better adjustment in those domains (Soenens & Vansteenkiste, 2005). Autonomy-supportive parenting and teaching was also relevant to the sense of competence children felt in themselves (Grolnick et al., 1991). In addition, the strengths a parent possesses is relevant for the strengths the child possesses (Togari et al., 2012). Due to the contextual nature of strengths, assessing the perceived social environment of an adolescent would likely provide useful information as to the strengths that would be developed and altered in the adolescent.

Although there is a clear relation between care and the development of empathy, resilience, and strength, the nature of this relationship is not clear in adolescent populations who may be developing quite well and not suffering through severe adversity.

### **The Current Study**

In the current study, we assessed the relation between adolescents' perception of care from family, teachers, friends, and a significant other with empathic ability, capacity for resilience, and possession of psychological strengths. Although the primary focus was on familial caring, due to its robust and well-documented effect on empathy, resilience, and strength development, we also wanted to explore the effect caring from different notable others may have on such development. We utilized a community adolescent sample, as resilience and strengths tended to be studied in samples characterized by extreme adversity (e.g. poverty, abuse), rather than by daily stresses (e.g. studying for exams, having a fight with a friend).

This study aimed to identify: 1) different ways in which empathy, resiliency, and psychological strengths relate to each other in adolescents; 2) whether caring may affect the development of these qualities in a significant way; and 3) whether different magnitudes or agents of caring may differentially affect this development. We hypothesized that:

- 1) Levels of empathy, resiliency, and strengths would correlate, as such qualities have been shown to be related;
- 2) Levels of perceived care from different sources would correlate, as those with greater perceived familial care have been demonstrated to be more socially sensitive, be better equipped to form attachments with others, and be more likely to elicit care from others. Other than the family, other notable sources of care in adolescents include friends,

teachers, and significant others (e.g., romantic partners, coaches); these sources of care were also assessed;

- 3) Perceived care from each notable source would significantly account for a differing portion of variance in empathic ability, resilience, and strength. Familial care would account for the greatest amount of variance, as it has been the most consistently demonstrated social factor to be related to these three constructs;
- 4) Perceived general care (composite of perceived care from each source assessed) would moderate the relationship between stress and resiliency, such that stress and resilience will correlate when perceived care is low but not when perceived care is high;
- 5) Perceived general care would moderate the relationship between psychological strengths and the perception of stress, such that strengths and stress will correlate when perceived care is low but not when perceived care is high, due to the buffering effect of perceived care.

## **Method**

### **Participants**

Two hundred and thirty-six high-school students (51% female), between the ages of 13 to 19 ( $M = 15.56$  years,  $SD = 1.26$ ) participated in the study. The participants were recruited from four public schools within a northern Ontario community. Roughly equal numbers of participants were recruited from each grade (Grade 9 = 29%, Grade 10 = 20%, Grade 11 = 23%, Grade 12 = 28%). Although ethnicity information was not collected, the sample was largely White-Caucasian.

Seventeen students were eliminated from the dataset due to the following reasons: three students did not answer a single question, three students answered only demographic questions, and 11 students did not complete at least one scale. The remaining dataset was fairly complete, with only 2% of values missing. To analyze the pattern of missing data, a Little's chi-square was done. With this test, the null hypothesis is that the missing data is missing completely at random (MCAR; Little & Rubin, 2002). The analysis showed that the null hypothesis should not be rejected ( $p = .80$ ). Listwise deletion was used to handle the remaining missing data ( $n = 14$ ), as tests indicated missing data was MCAR and adequate power existed despite the deletion. A priori analysis conducted suggested that 128 participants was required ( $1 - \beta = .95$ ,  $\alpha = .05$ ,  $d = .19$ , predictors = 8; G\* Power 3.1.9.2)

### **Instruments**

**Support measures.** The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a scale used to assess the current subjective aspect of social support adequacy in a specific individual. The scale consists of 12 items, each rated on a 7-point Likert-type scale with 1 representing "very strongly disagree" and 7 representing "very strongly agree". The items are equally divided into three subscales, assessing perceived social support from different important figures in an individual's life: family, friends, and a significant other. The inclusion of a significant other as a source of support may be particularly relevant for adolescents as romantic relationships and relationships with adults outside the family are emerging (Canty-Mitchell & Zimet, 2000). Items on the Significant Other subscale do not specify who this individual should be, and can be interpreted by the participant as meaning a romantic partner, a teacher, a coach, counselor, etc. A further instruction was included to indicate who the significant other was. The measure is easily understood and has been shown to have

sound psychometric properties with adolescent samples (Canty-Mitchell & Zimet, 2000). The MSPSS has also demonstrated good stability, with a test-retest reliability of .85 after 2-3 months (Zimet et al., 1988). The MSPSS demonstrated high internal consistency within the present sample when assessed in its entirety (Cronbach's alpha = .92) or as subscales: Family (Cronbach's alpha = .92), Friends (Cronbach's alpha = .90), Significant Other (Cronbach's alpha = .92). Such values indicate that each item on the test and subscale likely measure the same thing.

The Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993) is an 18-item, 5-point Likert scale designed to assess an adolescent students' current perception of belonging or membership in the school environment. Specifically, it is designed to measure "the extent to which the student feels personally accepted, respected, included, and supported by others in the school environment" (p. 80). Psychological membership is viewed as a phenomenon that intersects between a purely personal intrapsychic experience, and as a function of a particular school environment. This phenomenon was found to affect academic behaviour and achievement though its influence on a student's motivation. The original authors of the scale viewed it as a unidimensional measure, but further analysis of the PSSM has shown it to be a measure of the following three factors: caring relationships, which is the student's perception of the quality of their relationship with their teacher; acceptance or belongingness at school; and rejection or disrespect (You, Ritchey, Furlong, Shochet, & Boman, 2011). The first factor involves adults, specifically teachers, whereas the latter two factors encompass peers and adults in the school setting. The PSSM was administered in its entirety with total scores used for analyses, as the three factor structure found by You and colleagues (2011) requires further replication. The PSSM has been found to have good test-retest reliability ( $r = .78$ ) and internal



consistency (Cronbach's alphas range from .71 to .88) for both middle and high school students (Goodenow, 1993; Hagborg, 1994). The PSSM demonstrated high internal consistency with the present sample (Cronbach's alpha = .91)

**Empathy measure.** The Basic Empathy Scale (BES; Jolliffe & Farrington, 2006) is a 20-item self-report measure that assesses an individual's current level of cognitive and affective empathy. The test developers conceptualized empathy as an understanding and sharing in another's emotional state or context and sought to create a measure that assessed both affect congruence and the understanding of another's emotions; affective and cognitive empathy, respectively. Items focus on four of the five basic emotions: fear, sadness, anger, and happiness, as other emotions are proposed to derive from these. Care was taken to develop items and an organization to the scale that would minimize the effect of social desirability and acquiescence response bias. Each item is a personal description to which the participant has to indicate if it is reflective of them using a 5-point Likert-scale. The BES was originally validated using an adolescent sample ( $M_{age} = 14.8$ ,  $SD = .48$ ) and has been utilized in research involving students in middle school and high school (Ang & Goh, 2010). A general empathy score, as well as an affective and cognitive empathy score can be garnered from this measure. However, only general empathy scores were used for the primary analyses, as both cognitive and affective components are typically viewed as essential elements of empathy. The BES demonstrated high internal consistency when measured in the present sample (Cronbach's alpha = .85).

**Stress/Well-being measure.** The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermestein, 1983) is a widely-used measure of global stress designed to be used with community samples with at least a junior high school education. It has shown to be a valid and reliable measure in adolescent samples (Lazarus & Folkman, 1984). The PSS does not assess the

presence of specific stressful events, but rather, the degree to which an individual appraises their lives as unpredictable, uncontrollable, and overbearing (Hewitt, Flett, & Mosher, 1992). In this way, items are not biased by event content and the differential recall such events may have for different individuals or population groups. The PSS consists of 14 items, of which are responded to using a 5-point Likert-type scale. All items are quite general and pertain to appraisals of stress for the past month. In a review of 12 separate studies utilizing the PSS, Lee (2012) found the measure to have adequate internal consistency, factorial validity, construct validity, test-retest reliability, and criterion validity. The PSS demonstrated high internal consistency when measured in the present sample (Cronbach's alpha = .84)

**Resilience measure.** The Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) is one of the most widely used measures of resiliency, due to its strong psychometric properties, and its wide applicability to diverse samples and conditions (Windle, Bennett, & Noyes, 2011). The CD-RISC consists of 25 5-point scale items, which are designed to measure the ability to cope with traumatic stress as perceived by the participant for the past month. The items are designed to assess personal characteristics thought to reflect resilient people and include qualities such as being able to view stress as an opportunity, the ability to engage the support of others when needed, and optimism. In the original study, five factors emerged (i.e. personal competence, trust in one's instincts, positive acceptance and secure relationships, control, and spiritual influences), however the stability of these factors has been questioned (Campbell-Sills & Stein, 2007), and so, all items were summed to create a single composite score of resilience for the present analyses. The CD-RISC demonstrated high internal consistency in the present sample (Cronbach's alpha = .93)

**Strength measure.** The Strength Assessment Inventory-Youth Version (SAI-Y; Rawana & Brownlee, 2010) is a self-report 105-item measure designed to provide a context-driven assessment of strengths in children and adolescents. The SAI examines strengths in different environments, in relation to different figures, and due to personal commitments. In this way, the SAI-Y assesses strengths that are both intrinsic to the individual and those due to interactions with others and the environment. The measure is divided into 11 content scales, which assess the individual's engagement in activities within the domains of everyday life (e.g. strengths at home, strengths from knowing oneself) important to youth. The items assess engagement for the past 6 months and are rated in terms of frequency using a 3-point scale, with an additional "Does not apply" option. A total strength score was obtained by summing the responses on all items and served as the primary strength outcome measure. Although the specific strengths are lost from using a total strength score, using a total strength score respects the fact that different individuals may find strength in different areas, and yet may still be classified as psychologically strong. The SAI-Y was validated using a primary and high school population. The SAI-Y demonstrated high internal consistency when measured in the present sample (Cronbach's alpha = .94)

## **Procedure**

The current study was approved by the Research Ethics Board at the Department of Psychology at Lakehead University, by the Lakehead District School Board in Thunder Bay, and by each participating school prior to any study activity. Recruitment and data collection was completed with the assistance of the principals and teachers at each school. Each school faculty involved was informed as to the details of the study (by meeting and/or email) and given a script of main points to mention to students. An equal number of randomly-selected classes from each grade, at each school, was invited to participate in the study. Students of the selected classes

were informed by the respective teachers as to the study's purpose and voluntariness of involvement. Each student was given a parental consent form and asked to return it signed if they were interested in participating. Once consented, participants completed all questionnaires by means of online administration, during class time, with the permission of school staff. On average, students required 23 minutes to complete all questionnaires.

### **Analysis**

All analyses were conducted using SPSS for Windows, Version 22. Descriptive statistics was used to examine the demographic characteristics of the adolescent sample (i.e. age, grade, and gender) and the characteristics of each measure. Alpha coefficients were calculated first to ensure the reliability of the instruments included (Clark & Watson, 1995). A correlation table was computed to study the association between familial care, care from friends, care from teachers, and care from significant others. A similar correlation table was computed to assess the association between empathy (general, cognitive, and affective), resiliency, and strengths.

A five-step hierarchical regression analysis was employed to determine the degree to which perceived care affected empathy. All demographic information was added on the first step, familial care was added as the second step, care from friends was added as the third step, care from a significant other was added as the fourth step, and care from teachers was added as the fifth step. Each source of caring was added as a subsequent step. This allowed us to assess and compare the amount of variance in empathy explained by each, allowing us to determine which sources of caring contributed most to empathic ability and whether this contribution was significant. Such a process was repeated for resiliency and strength as outcome measures, with these three regression analyses being the primary analyses of the present study. With resiliency scores, an additional step was added: perceived stress was added as the second step to account

for the different stress levels experienced by participants and the established inverse association between stress and resilience.

In addition, separate moderated regression analyses were done to assess whether perceived general care moderated the relationship between perceived stress and levels of resiliency, and the relationship between strengths and perception of stress.

## Results

The basic descriptive statistics for the sample and responses for each measure can be found on Table 1. A Pearson correlation was used to analyze the association between empathy, resiliency, and strength, as well as between perceived care from each source assessed (i.e., family, friends, significant other, and teachers). The results of these correlations can be found on Table 2. The results showed that empathy, resilience, and strength scores were correlated in line with our first hypothesis, although the strength of these correlations varied greatly: resilience and strength scores were strongly correlated ( $r = .66, p < .001$ ); cognitive empathy scores were moderately correlated with both resilience ( $r = .30, p < .001$ ) and strength scores ( $r = .32, p < .001$ ); and general empathy scores were weakly correlated with strength scores ( $r = .14, p < .05$ ). In terms of perceived care, every combination of source of care was significantly correlated with one another, supporting the second hypothesis that perception of care across multiple figures may be a stable quality. Notably, perceived familial care was moderately correlated with perceived care from friends ( $r = .43, p < .001$ ), perceived care from significant others ( $r = .43, p < .001$ ) and perceived care from teachers ( $r = .46, p < .001$ ).

### Main Analyses

Three separate hierarchical regressions were conducted to assess the variance in empathy scores, in resilience scores, and in strength scores accounted for by each source of care assessed, after

controlling for demographic factors. It was hypothesized that each source of care would account for unique variance in scores, and that perceived care from the family would account for the greatest variance compared to other sources of care. Three participants were identified as outliers and removed from analyses (i.e., their standardized residual was greater than 3 for a particular outcome variable and histograms clearly showed that the participant deviated markedly from that of the rest of the sample). The results of these regressions can be found on Table 3, Table 4, and Table 5, respectively. The complete model (with all predictors added) accounted for 23% of the variance in empathy scores. Only demographic factors and perceived care from friends accounted for a significant proportion of variance, which was not in line with our hypothesis. When the analysis was run on males and females separately, the predictors were ultimately only able to account for 17% of the variance in males ( $N = 99$ ) and 7% of the variance in females ( $N = 103$ ). Only care from friends proved to be a significant predictor within the male sample ( $R^2 = .08, p < 0.01$ ) and no predictor proved significant when testing on the female sample, although there was a trend towards significance for care from friends,  $R^2 = .03, p = .083$ . For the regression conducted for resilience, the complete model accounted for 55% of the variance in scores. Each step accounted for a significant proportion of variance in line with our hypothesis. However, perceived care from teachers (and not the family) accounted for the greatest variance, when compared among the different sources of care. Finally, our complete model accounted for 35% of the variance in strength scores. Each step accounted for a significant proportion of variance in line with our hypothesis. Again, perceived care from teachers (and not the family), accounted for the greatest variance among the different sources of care, although the family did contribute to more variance in strength scores than in resilience scores.

### **Moderation Analyses**

To test the fourth hypothesis, that general care moderated the relationship between stress and resilience, a moderation analysis was conducted using hierarchical multiple regression. In the first step, the two independent variables of interest (stress, general care) were added. These variables accounted for a significant portion of variance in resilience,  $R^2 = .51$ ,  $F(2, 199) = 104.85.05$ ,  $p < .001$ . Next, the interaction term of stress and general care was added to the regression model. The interaction term did not account for any additional variance in resilience,  $\Delta R^2 = .01$ ,  $\Delta F(1,198) = 1.88$ ,  $p = .17$ . This finding does not lend support to the notion that social support may buffer against experiences of stress and lead to greater resilience.

To test the fifth hypothesis, that general care moderated the relationship between strength and well-being (stress), a separate hierarchical multiple regression was conducted. In the first step, the two independent variables of interest (strength, general care) were added. These variables accounted for a significant portion of variance in well-being,  $R^2 = .27$ ,  $F(2, 199) = 37.05$ ,  $p < .001$ . Next, the interaction term of strength and general care was added to the regression model. This variable did not account for any additional variance in well-being (stress),  $\Delta R^2 = .00$ ,  $\Delta F(1,198) = .14$ ,  $p = .71$ . This finding does not support the notion that greater perceived care may buffer against the underutilization or possession of strengths to promote well-being.

### **Discussion**

The results of the present study demonstrated that perceived care from notable figures affected the presentation of empathy, resilience, and strengths in adolescents. Much of our initial hypotheses were confirmed. However, some results were aberrant from that of previous studies. For example, we did find that empathy, resiliency, and strengths were correlated with each other, but only when empathy consisted of exclusively cognitive qualities (as opposed to consisting of

both cognitive and affective qualities). It is hard to explain this finding, as in the rare instances these three qualities were assessed within one study (e.g., Kinsella et al., 1996; Parker et al., 1990), empathy was always operationalized as consisting of both cognitive and affective qualities. More so, the study design and sample of the present study are quite different from the previous two studies cited. For example, the study conducted by Kinsella and colleagues (1996) was a retrospective qualitative study consisting of 20 participants, in which the relation between the three qualities was inductively determined. The study conducted by Parker and colleagues (1990) utilized a sample consisting of primarily poor African urban grade-school children. The evidence is not yet clear whether these three qualities are indeed related, and further replication is needed using different sample groups and study designs.

As expected levels of perceived care from different sources did indeed correlate. Attachment theorists have posited that the family environment determines the relational patterns of the child generally (Sroufe, 1979). However, this study is unable to provide information as to whether perception of care from family is the driving factor that affects perception of care elsewhere. The results of this study do confirm previous findings that show relationship patterns and perception of caring tends to be a fairly stable quality within an individual (Howes et al., 1998; Levitt, Guacci-Franco, & Levitt, 1993). Previous authors believed the stability reflected the fact that children formed positive or negative cognitive representations of different people in their life (e.g. my teacher cares about me), and that such representations affect future pattern of interaction with similar people (e.g. being friendly with teachers encountered in subsequent grades). It is conceivable that other adaptive general beliefs (i.e., people are caring, I am a person worthy of care from others) can be formed from early experiences of being cared for by



important social models. Future studies should assess self-schemas and social beliefs in relation to perceived care.

Our results confirmed our primary hypothesis of the study and showed that perceived care from notable figures do account for variance in empathy, resilience, and strength scores. However, the variance accounted for by each variable (i.e., perceived care from each source) varied for each construct assessed. Our weakest model was that for empathy, in which perceived care from all sources and demographic factors accounted for 21% of variance. Perception of care from friends and demographic factors each accounted for a significant proportion of variance (3% and 15%, respectively) with gender being the best predictor in the model. When analysis was done separately for male and female participants, it was found that perceived care from friends was only significant for male participants. This suggests that for adolescent males, the process of becoming more emotionally aware and prosocial towards others may result from connection with friends. This is quite a novel finding, as the literature on gender differences in social support generally shows that adolescent and adult women are more dependent upon social support for psychological well-being and relationship satisfaction than men (Acitelli & Antonucci, 1994; Day & Livingstone, 2003; Flaherty & Richman, 1989; Rose & Rudolph, 2006). In addition, all-girl peer groups tend to be more cooperative and prosocial than that of all-boy peer groups, with this difference theorized to partially explain why girls are generally higher in empathy. Rose and Rudolph (2006) have proposed a theoretical model in which peer socialization among same-sex peers influences the development of sex-linked peer relationship processes (which includes empathy, conceptualized in the model as a social-cognitive relationship style), which in turn affects emotional and behavioural adjustment. The present study did not require participants to only rate perceived care among same-sex friends, but given

that both boys and girls generally do interact with same-sex peers more than opposite-sex peers during adolescence (Rose and Rudolph, 2006), the results of this study may support the theorized link between socialization by peers and sex-linked relationship processes. The results also point to the importance of relationship factors for boys' development and the need for further research to be conducted on the interpersonal nature of boys and their social-cognitive style.

The second regression conducted for resilience was more successful and accounted for 57% of the variance in scores. Most of this variance was explained by stress, which was expected, given that stress is generally associated with reduced resilience (e.g., Criss et al., 2002). Although modest, each source of care accounted for a significant proportion of variance (between 2-6%), with perceived care from teachers being the best predictor among the social support variables included. Although the current study is based on literature that suggests social support facilitates resilience, the direction of this relationship cannot be established with the present data. It may be the case that social support and resilience are bidirectional, such that those who are better supported are more resilient, and also more likely to utilize help from others when needed. Such a relationship was suggested by the results found by Werner (1997), but further research is necessary.

The results for the final regression for strengths were as hypothesized and the variables included accounted for 30% of variance in scores. Each source of care was a significant predictor in the model, with perceived care from the family and teachers accounting for 29% of the variance in scores. These results underline the importance of both the home and family environment to an adolescent's perception of personal strengths. Feeling cared for may lead one to be more successful or perceive success in different domains of their life (e.g., be more

ambitious in setting goals, be more involved within the community, and be more accepting of the self).

The most unexpected results of this study were those surrounding our hypotheses involving moderation: perceived general care did not moderate the relationship between stress and resiliency, nor the relationship between strengths and well-being (stress). These results may be due to the sample and means of operationalization used in the present study. All previous studies in which a moderating effect of perceived care was found utilized a non-adolescent sample. In addition, there are many ways in which a researcher can operationalize well-being, perceived stress is just one. Although social support is a popular topic in social science research, assessing the moderating effects of social support is rarely done. The negative findings from this study should inspire researchers to further study the topic, using diverse samples and perspectives of strength, resilience, and well-being.

There are two main themes to the results that warrant further discussion: the lessened emphasis of perceived care from the family and the greater emphasis of perceived care from teachers. Although direct comparisons between sources of social support are rarely done, given the extensive literature demonstrating the robust effect of the family, it was hypothesized that perceived care from the family would prove most crucial to the presentation of empathy, resilience, and strengths. However, this was not the case, as perceived care from another figure proved superior to that of the family for each outcome measure. It was especially surprising that perceived care from the family was not a significant factor for empathy, given the literature emphasizing the importance of parental attachment, connectedness, and discussion in this domain (Eisenberg-Berg & Mussen, 1978; Laible, 2007; Yoo et al., 2013). The findings may be support for literature showing that the family is of lessened importance during adolescence and

that tensions in the parent-child relationship tend to be most pronounced during early and middle adolescence (Furman & Buhrmester, 1992; Levitt et al., 1993). When different social supports are assessed in relation to age, the family was found to be most influential for children during grade school, suffer a reduced degree of influence in children during high school, and increase again in influence when children went to college. Friends and romantic partners were found to be more crucial sources of social support during high school. Although adolescents may not come to rely on family as much for social support, the present results suggest that the diminishing of familial influence may be more pronounced for certain qualities (e.g., empathy) while maintained for other qualities (e.g., strengths). The second theme worth expanding on is the importance of perceived care from teachers. This factor accounted for the greatest variance in resilience and strength. Much of the previous work done on the teacher-child relationship has assessed the influence of this relationship on academic attitudes and behaviours. In this line of research, it was found that relationship dynamics (dependency, conflict, and closeness between parties) were related to adjustment (i.e., academic performance, school attitudes, engagement towards school, self-directedness; Birch & Ladd, 1997); perceived care from teachers was associated with students' evaluation of learning, satisfaction with school, school and class-related interest, and social responsibility (Baker, 1999; Wentzel, 1998); instructor-student rapport was associated with student participation and learning (Frisby & Martin, 2010); and communication between teachers and students was related to motivation and affective learning in students (Pogue & AhYun, 2006). When students were asked to identify characteristics of teachers that affected their perception of care within the relationship, it was found that teacher immediacy (non-verbal behaviours that enhance closeness), responsiveness (sensitively and understanding), assertiveness (ability to focus on task dimension of relationship) were positively

related to perception of care, whereas verbal aggressiveness was negatively related to perception of care (Teven, 2001). Although teachers clearly have an effect on students' academic and professional endeavors, the present results suggest they may have a wider impact, influencing the presentation of resilience and strengths in students. This represents a newer field of research. However, our present results are consistent with the few studies that exist in this field. In a qualitative study, students cited repeated small gestures on the part of their teacher (e.g., being available, listening, and teaching the basics in a subject) as helping promote resilience in themselves (Johnson, 2008). Similarly, it was found that a warm relationship with a teacher was associated with positive school outcomes in children with internalizing and externalizing behaviour problems (Baker, Grant, & Morlock, 2008) and that effective teachers were able to establish caring, task-focused communities within their classrooms through their ability to develop relationships and communicate in a culturally-responsive manner (Bondy, Ross, Gallingane, & Hambacher, 2007). Participants in the aforementioned qualitative study noted that teachers have the capacity to make a difference to the lives of students in a profound way. The results of this study lend further support for this position, and also speak to the necessity of further research that assesses the influence of teachers and the wider school environment for personal development.

There are a few limitations to the study which will be expanded on. The first limitation concerns the range of scores obtained for the measures. It is likely that the current sample consisted of relatively high-functioning individuals, as average scores for the BES, CD-RISC, SAI:Y, MSPSS, and PSSM were well above the midpoint. It is worth noting that for this study, we did want to include healthy adolescents going through normal development, as the literature tends to neglect this sample, so perhaps the above average scores were to be expected.

Nonetheless, this does result in a reduced range of scores obtained. The second limitation concerns the fact that the utilized study design cannot speak to the direction of the relationship between variables. It is possible that the qualities of empathy, resilience, and strengths affects the perception of care in people, as opposed to vice versa. It is likely that a reciprocal relationship exists between these variables. The strength of self-compassion would be a great example of this reciprocal interaction (Neff, 2003; Neff, 2009; Neff & McGehee, 2010; Neff & Vonk, 2009). It is related to the feeling of social connectedness, through the reframing of one's own experience as commonly experienced by others and seeing imperfection and conflict within relationships as human universals. However, it is in of itself predicted by maternal support, general family functioning, and secure attachment styles. It is not clear whether this reciprocal relationship exists between other aspects of empathy, resilience, and strengths and social support, and represents an exciting area for future research. Future research should utilize a longitudinal study design to demonstrate the temporal sequence as to how perceived care, empathy, resilience, and strengths affect each other. The final limitation concerns the fact that we were limited in regards to the number and length of measures we were able to include. Given the young sample group and the required involvement of school personnel, brevity and simplicity were favoured in the measures chosen for the study. However, there were numerous additional variables that likely would have accounted for additional variance. For example, intelligence, personality facets, socioeconomic status, and depressed mood have each been found to affect subjective well-being and/or relationship perceptions, acting as possible variables for examination in future adolescent research (Gallagher & Vella-Brodrick, 2008; Kalmijn 2013; Hayes & Joseph, 2003; Pinquart & Sörensen, 2000).

Shaping individuals to be more empathic in their interactions with others, be resilient amidst stress, and effectively harness their psychological strengths has implications for an individual's well-being, mental functioning, and social responsibility. The current study demonstrates that perceived care is related to the presentation of these three qualities, and that a comprehensive assessment of care involving many important figures is superior to assessing any one source of care in isolation. Previous research had found that children who perceived support from multiple sources tended to be more functional than those who had to rely on one source (Levitt et al., 2005; Sarason et al., 1986). The present study extends this finding and shows that perceived care from family, friends, teachers, and significant others each contribute to an adolescent's ability to be resilient and psychologically strong. However, this study also shows that certain figures play a more crucial role to the social and moral development of adolescents. Namely, perceived care from friends plays the largest role in empathic ability, perceived care from teachers plays the largest role for resilience, and perceived care from teachers and family plays the largest role for strengths. These findings stress the importance of school practices and environments that breed a sense of care among its students. Schools are not merely a place for academic learning, but a place for students to gain a sense of being cared for. The results of the study underline the importance of the broader social environment in promoting healthy development in adolescents.

### References

- Alexander, K. L. (2001). Prosocial behaviors of adolescents in work and family life: Empathy and conflict resolution strategies with parents and peers. *Dissertation Abstracts International: Humanities and Social Sciences*, 61(8A), 3367.
- Allison, S., Stacey, K., Dadds, V., Roeger, L., Wood, A., & Martin, G. (2003). What the family brings: Gathering evidence for strengths-based work. *Journal of Family Therapy*, 25(3), 263-284. doi: 10.1111/1467-6427.00248
- Ang, R. P., & Goh, D. H. (2010). Cyberbullying among adolescents: The role of affective and cognitive empathy, and gender. *Child Psychiatry & Human Development*, 41(4), 387-397. doi:10.1007/s10578-010-0176-3
- Antonovsky, A., & Sourani, T. (1988). Family sense of coherence and family adaptation. *Journal of Marriage and the Family*, 79-92. doi: 10.2307/352429
- Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well being, quality of parenting, and child resilience: What we know. *Journal of Child and Family Studies*, 14(2), 269-281. doi:10.1007/s10826-005-5054-4
- Baker, J. A. (1999). Teacher-student interaction in urban at-risk classrooms: Differential behavior, relationship quality, and student satisfaction with school. *The elementary school journal*, 100(1), 57-70. doi: 10.1086/461943



- Baker, J. A., Grant, S., & Morlock, L. (2008). The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems. *School Psychology Quarterly*, 23(1), 3. doi: [10.1037/1045-3830.23.1.3](https://doi.org/10.1037/1045-3830.23.1.3)
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1184. doi: 10.1037/0003-066X.44.9.1175
- Barahal, R. M., Waterman, J., & Martin, H. P. (1981). The social cognitive development of abused children. *Journal of Consulting and Clinical Psychology*, 49(4), 508. doi: [10.1037/0022-006X.49.4.508](https://doi.org/10.1037/0022-006X.49.4.508)
- Barr, J. J., & Higgins-D'Alessandro, A. (2007). Adolescent empathy and prosocial behavior in the multidimensional context of school culture. *The Journal of Genetic Psychology*, 168(3), 231-250. doi: 10.3200/GNTP.168.3.231-250
- Bell, H. (2003). Strengths and secondary trauma in family violence work. *Social Work*, 48(4), 513-522. doi: [10.1093/sw/48.4.513](https://doi.org/10.1093/sw/48.4.513)
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of school psychology*, 35(1), 61-79. doi: [10.1016/S0022-4405\(96\)00029-5](https://doi.org/10.1016/S0022-4405(96)00029-5)
- Biswas-Diener, R., Kashdan, T. B., & Minhas, G. (2011). A dynamic approach to psychological strength development and intervention. *The Journal of Positive Psychology*, 6(2), 106-118. doi: [10.1080/17439760.2010.545429](https://doi.org/10.1080/17439760.2010.545429)
- Black, A. E., & Deci, E. L. (2000). The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory

- perspective. *Science education*, 84(6), 740-756.  
doi: 10.1002/1098-237X(200011)84:6<740::AID-SCE4>3.0.CO;2-3
- Blum, R. W., McNeely, C., & Nonnemaker, J. (2001). Vulnerability, risk, and protection. In B. Fischhoff, E. O. Nightingale, & J. G. Iannotta (Eds.), *Adolescent risk and vulnerability: Concepts and measurement* (pp. 50-72). Washington, DC: National Academic Press.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events?. *American psychologist*, 59(1), 20.  
doi: 10.1037/0003-066X.59.1.20
- Bondy, E., Ross, D. D., Gallingane, C., & Hambacher, E. (2007). Creating environments of success and resilience: Culturally responsive classroom management and more. *Urban education*, 42(4), 326-348. doi: 10.1177/0042085907303406
- Borke, H. (1971). Interpersonal perception of young children: Egocentrism or Empathy?. *Developmental psychology*, 5(2), 263. doi: 10.1037/h0031267
- Borke, H. (1973). The development of empathy in Chinese and American children between three and six years of age: A cross-cultural study. *Developmental Psychology*, 9(1), 102.  
doi: [10.1037/h0035080](https://doi.org/10.1037/h0035080)
- Botha, C., & Pienaar, J. (2006). South African correctional official occupational stress: The role of psychological strengths. *Journal of Criminal Justice*, 34(1), 73-84.  
doi: [10.1016/j.jcrimjus.2005.11.008](https://doi.org/10.1016/j.jcrimjus.2005.11.008)
- Bousha, D. M., & Twentyman, C. T. (1984). Mother-child interactional style in abuse, neglect, and control groups: Naturalistic observations in the home. *Journal of Abnormal Psychology*, 93(1), 106. doi: [10.1037/0021-843X.93.1.106](https://doi.org/10.1037/0021-843X.93.1.106)

- Burgess, R. L., & Conger, R. D. (1978). Family interaction in abusive, neglectful, and normal families. *Child Development*, 1163-1173. doi: 10.2307/1128756
- Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the connor–davidson resilience scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, 20(6), 1019-1028. doi: 10.1002/jts.20271
- Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, 28(3), 391-400. doi: 10.1023/A:1005109522457
- Carlton, B. S., Goebert, D. A., Miyamoto, R. H., Andrade, N. N., Hishinuma, E. S., Makini Jr, G. K., ... & Nishimura, S. T. (2006). Resilience, family adversity and well-being among Hawaiian and non-Hawaiian adolescents. *International Journal of Social Psychiatry*, 52(4), 291-308. doi: 10.1177/0020764006065136
- Chase-Lansdale, P. L., Wakschlag, L. S., & Brooks-Gunn, J. (1995). A psychological perspective on the development of caring in children and youth: The role of the family. *Journal of Adolescence*, 18(5), 515. doi: [10.1006/jado.1995.1037](https://doi.org/10.1006/jado.1995.1037)
- Choate, L. (2007). Counseling adolescent girls for body image resilience: Strategies for school counselors. *Professional School Counseling*, 10(3), 317-324.  
doi: 10.5330/prsc.10.3.x47524283143v335
- Cicchetti, D., & Lynch, M. (1993). Toward an ecological/transactional model of community violence and child maltreatment: Consequences for children's development. *Psychiatry*, 56(1), 96-118. doi: [10.1080/00332747.1993.11024624](https://doi.org/10.1080/00332747.1993.11024624)

- Cicchetti, D., & Rogosch, F. A. (1997). The role of self-organization in the promotion of resilience in maltreated children. *Development and Psychopathology*, 9(04), 797-815.  
doi: 10.1017/S0954579497001442
- Cicchetti, D., & Tucker, D. (1994). Development and self-regulatory structures of the mind. *Development and Psychopathology*, 6(04), 533-549.  
doi: [10.1017/S0954579400004673](https://doi.org/10.1017/S0954579400004673)
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309. doi: 10.1037/1040-3590.7.3.309
- Cleverley, K., & Kidd, S. A. (2011). Resilience and suicidality among homeless youth. *Journal of Adolescence*, 34(5), 1049-1054. doi: [10.1016/j.adolescence.2010.11.003](https://doi.org/10.1016/j.adolescence.2010.11.003)
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 385-396. doi: 10.2307/2136404
- Coke, J. S., Batson, C. D., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology*, 36(7), 752.  
doi: [10.1037/0022-3514.36.7.752](https://doi.org/10.1037/0022-3514.36.7.752)
- Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: Evidence from a community sample. *Child Abuse & Neglect*, 31(3), 211-229. doi: [10.1016/j.chiabu.2007.02.004](https://doi.org/10.1016/j.chiabu.2007.02.004)
- Colom, R., & Lynn, R. (2004). Testing the developmental theory of sex differences in intelligence on 12–18 year olds. *Personality and Individual Differences*, 36(1), 75-82.  
doi: [10.1016/S0191-8869\(03\)00053-9](https://doi.org/10.1016/S0191-8869(03)00053-9)

- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety, 18*(2), 76-82.  
doi: 10.1002/da.10113
- Cowen, E. L. (1991). In pursuit of wellness. *American Psychologist, 46*(4), 404.  
doi: [10.1037/0003-066X.46.4.404](https://doi.org/10.1037/0003-066X.46.4.404)
- Cowger, C. D. (1994). Assessing client strengths: Clinical assessment for client empowerment. *Social work, 39*(3), 262-268. doi: 10.1093/sw/39.3.262
- Criss, M. M., Pettit, G. S., Bates, J. E., Dodge, K. A., & Lapp, A. L. (2002). Family adversity, positive peer relationships, and children's externalizing behavior: A longitudinal perspective on risk and resilience. *Child development, 73*(4), 1220-1237.  
doi: 10.1111/1467-8624.00468
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience, 13*(9), 636-650.  
doi: 10.1038/nrn3313
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10*, 85. doi: 10.1.1.462.7754
- Davis, M. H., & Franzoi, S. L. (1991). Stability and change in adolescent self-consciousness and empathy. *Journal of Research in Personality, 25*(1), 70-87.  
doi: [10.1016/0092-6566\(91\)90006-C](https://doi.org/10.1016/0092-6566(91)90006-C)

- Day, A. L., & Livingstone, H. A. (2003). Gender differences in perceptions of stressors and utilization of social support among university students. *Canadian Journal of Behavioural Science, 35*(2), 73. Retrieved from <http://psycnet.apa.org/fulltext/2003-02886-002.html>
- Deci, E., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum, NY: Springer Science & Business Media.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry, 11*(4), 227-268.  
doi: [10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- De Vignemont, F., & Singer, T. (2006). The empathic brain: how, when and why?. *Trends in Cognitive Sciences, 10*(10), 435-441. doi: [10.1016/j.tics.2006.08.008](https://doi.org/10.1016/j.tics.2006.08.008)
- Dishion, T. J., & Patterson, G. R. (2006). The development and ecology of antisocial behaviour. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental Psychopathology, Vol 3: Risk, Disorder, and Adaptation*. New York, NY: Wiley.
- DiFulvio, G. T. (2011). Sexual minority youth, social connection and resilience: From personal struggle to collective identity. *Social Science & Medicine, 72*(10), 1611-1617.  
doi: [10.1016/j.socscimed.2011.02.045](https://doi.org/10.1016/j.socscimed.2011.02.045)
- Eden, D. (1988). Pygmalion, goal setting, and expectancy: Compatible ways to boost productivity. *Academy of Management Review, 13*(4), 639-652.  
doi: 10.5465/AMR.1988.4307530

Eden, D., & Zuk, Y. (1995). Seasickness as a self-fulfilling prophecy: raising self-efficacy to boost performance at sea. *Journal of Applied Psychology, 80*(5), 628.

doi: 10.1037/0021-9010.80.5.628

Eisenberg, N., Cumberland, A., Guthrie, I. K., Murphy, B. C., & Shepard, S. A. (2005). Age changes in prosocial responding and moral reasoning in adolescence and early adulthood. *Journal of research on adolescence, 15*(3), 235-260.

doi: 10.1111/j.1532-7795.2005.00095.x

Eisenberg, N., & Lennon, R. (1983). Sex differences in empathy and related capacities. *Psychological Bulletin, 94*(1), 100-131. doi: 10.1037/0033-2909.94.1.100

Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin, 101*(1), 91. doi: [10.1037/0033-2909.101.1.91](https://doi.org/10.1037/0033-2909.101.1.91)

Eisenberg-Berg, N., & Mussen, P. (1978). Empathy and moral development in adolescence. *Developmental Psychology, 14*(2), 185. doi: 10.1037/0012-1649.14.2.185

Feshbach, N. D. Empathy in children: A special ingredient of social development. Invited address to the meeting of the Western Psychological Association, Los Angeles, April, 1976.

Feshbach, N. D., & Roe, K. (1968). Empathy in six-and seven-year-olds. *Child Development, 39*, 133-145. doi: 10.2307/1127365

Flaherty, J., & Richman, J. (1989). Gender differences in the perception and utilization of social support: Theoretical perspectives and an empirical test. *Social Science & Medicine, 28*(12), 1221-1228. doi: [10.1016/0277-9536\(89\)90340-7](https://doi.org/10.1016/0277-9536(89)90340-7)

- Fortier, M. S., Vallerand, R. J., & Guay, F. (1995). Academic motivation and school performance: Toward a structural model. *Contemporary educational psychology, 20*(3), 257-274. doi: [10.1006/ceps.1995.1017](https://doi.org/10.1006/ceps.1995.1017)
- Frisby, B. N., & Martin, M. M. (2010). Instructor–student and student–student rapport in the classroom. *Communication Education, 59*(2), 146-164.  
doi: [10.1080/03634520903564362](https://doi.org/10.1080/03634520903564362)
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child development, 63*(1), 103-115.  
doi: 10.1111/j.1467-8624.1992.tb03599.x
- Gallagher, E. N., & Vella-Brodrick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and individual differences, 44*(7), 1551-1561. doi: [10.1016/j.paid.2008.01.011](https://doi.org/10.1016/j.paid.2008.01.011)
- Gardner, T. W., Dishion, T. J., & Connell, A. M. (2008). Adolescent self-regulation as resilience: Resistance to antisocial behavior within the deviant peer context. *Journal of Abnormal Child Psychology, 36*(2), 273-284. doi:10.1007/s10802-007-9176-6
- Gardner, D. G., & Pierce, J. L. (1998). Self-esteem and self-efficacy within the organizational context an empirical examination. *Group & Organization Management, 23*(1), 48-70.  
doi: 10.1177/1059601198231004
- Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M., ... & Contero, A. (2011). Character strengths predict subjective well-being during adolescence. *The Journal of Positive Psychology, 6*(1), 31-44.  
doi: 10.1080/17439760.2010.536773



- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*(1), 79-90.  
doi: 10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of educational psychology, 83*(4), 508. doi: 10.1037/0022-0663.83.4.508
- Gutierrez, L. M. (1994). Beyond coping: An empowerment perspective on stressful life events. *J. Soc. & Soc. Welfare, 21*, 201. Retrieved from <http://psycnet.apa.org/record/1995-17450-001>
- Hagborg, W. J. (1994). An exploration of school membership among middle-and high-school students. *Journal of Psychoeducational Assessment, 12*(4), 312-323.  
doi: 10.1177/073428299401200401
- Hardy, S. A. (2006). Identity, reasoning, and emotion: An empirical comparison of three sources of moral motivation. *Motivation and Emotion, 30*(3), 205-213.  
doi:10.1007/s11031-006-9034-9
- Harris, N., Brazeau, J. N., Rawana, E. P., Brownlee, K., & Klein, R. (2017). Self-Perceived Strengths Among Adolescents With and Without Substance Abuse Problems. *Journal of Drug Issues, 47*(2), 277-288. doi: 10.1177/0022042616687118
- Hayes, N., & Joseph, S. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual differences, 34*(4), 723-727.  
doi: [10.1016/S0191-8869\(02\)00057-0](https://doi.org/10.1016/S0191-8869(02)00057-0)

- Hewitt, P. L., Flett, G. L., & Mosher, S. W. (1992). The Perceived Stress Scale: Factor structure and relation to depression symptoms in a psychiatric sample. *Journal of Psychopathology and Behavioral Assessment, 14*(3), 247-257. doi: 10.1007/BF00962631
- Hitlin, S. (2003). Values as the core of personal identity: Drawing links between two theories of self. *Social Psychology Quarterly, 118*-137. doi: 10.2307/1519843
- Hodgkinson, P. E., & Shepherd, M. A. (1994). The impact of disaster support work. *Journal of Traumatic Stress, 7*(4), 587-600. doi: 10.1007/BF02103009
- Hoffman, M. L. (1977). Empathy, its development and prosocial implications. In *Nebraska symposium on motivation*. University of Nebraska Press.
- Hoffman, M. L. (1977). Sex differences in empathy and related behaviors. *Psychological Bulletin, 84*(4), 712-722. doi: 10.1037/0033-2909.84.4.712
- Hogan, R. (1969). Development of an empathy scale. *Journal of consulting and clinical psychology, 33*(3), 307. doi: 10.1037/0022-006X.33.3.307
- Howes, C., Hamilton, C. E., & Philipsen, L. C. (1998). Stability and continuity of child-caregiver and child-peer relationships. *Child development, 69*(2), 418-426.  
doi: 10.1111/j.1467-8624.1998.tb06199.x
- Howes, P., & Markman, H. J. (1989). Marital quality and child functioning: A longitudinal investigation. *Child Development, 1044*-1051. doi: 10.2307/1130778
- Huta, V., & Hawley, L. (2010). Psychological strengths and cognitive vulnerabilities: Are they two ends of the same continuum or do they have independent relationships with well-

- being and ill-being? *Journal of Happiness Studies*, 11(1), 71-93.  
doi: 10.1007/s10902-008-9123-4
- Johnson, B. (2008). Teacher–student relationships which promote resilience at school: A micro-level analysis of students’ views. *British Journal of Guidance & Counselling*, 36(4), 385-398. doi: [10.1080/03069880802364528](https://doi.org/10.1080/03069880802364528)
- Jolliffe, D., & Farrington, D. P. (2006). Development and validation of the Basic Empathy Scale. *Journal of Adolescence*, 29(4), 589-611. doi: [10.1016/j.adolescence.2005.08.010](https://doi.org/10.1016/j.adolescence.2005.08.010)
- Kalmijn, M. (2013). Through a dark lens: Effects of depressed mood on perceived equity in intergenerational relationships. *Social Science Quarterly*, 94(2), 424-444.  
doi: [10.1111/j.1540-6237.2012.00927.x](https://doi.org/10.1111/j.1540-6237.2012.00927.x)
- Kareaga, A. A., Exeberria, S. A., & Smith, J. C. (2008). Assessment of burnout and psychological wellbeing among health professionals in the Basque Country. *Psicología*, 24(2), 235-252. Retrieved from [https://www.researchgate.net/publication/40745254\\_Assessment\\_of\\_burnout\\_and\\_psychological\\_wellbeing\\_among\\_health\\_professionals\\_in\\_the\\_Basque\\_Country](https://www.researchgate.net/publication/40745254_Assessment_of_burnout_and_psychological_wellbeing_among_health_professionals_in_the_Basque_Country)
- Khan, A., & Husain, A. (2010). Social support as a moderator of positive psychological strengths and subjective well-being. *Psychological Reports*, 106(2), 534-538.  
doi: 10.2466/pr0.106.2.534-538
- Kinsella, K. B., Anderson, R. A., & Anderson, W. T. (1996). Coping skills, strengths, and needs as perceived by adult offspring and siblings of people with mental illness: A retrospective study. *Psychiatric Rehabilitation Journal*, 20(2), 24. doi: [10.1037/h0095388](https://doi.org/10.1037/h0095388)

- Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of personality and social psychology*, 37(1), 1.  
doi: [10.1037/0022-3514.37.1.1](https://doi.org/10.1037/0022-3514.37.1.1)
- Kurdek, L. A., & Rodgon, M. M. (1975). Perceptual, cognitive, and affective perspective taking in kindergarten through sixth-grade children. *Developmental Psychology*, 11(5), 643.  
doi: [10.1037/0012-1649.11.5.643](https://doi.org/10.1037/0012-1649.11.5.643)
- Laible, D. (2007). Attachment with parents and peers in late adolescence: Links with emotional competence and social behavior. *Personality and Individual Differences*, 43(5), 1185-1197. doi: [10.1016/j.paid.2007.03.010](https://doi.org/10.1016/j.paid.2007.03.010)
- Laible, D. J., Carlo, G., & Roesch, S. C. (2004). Pathways to self-esteem in late adolescence: The role of parent and peer attachment, empathy, and social behaviours. *Journal of Adolescence*, 27(6), 703-716. doi: [10.1016/j.adolescence.2004.05.005](https://doi.org/10.1016/j.adolescence.2004.05.005)
- Lamphear, V. S. (1985). The impact of maltreatment on children's psychosocial adjustment: A review of the research. *Child Abuse & Neglect*, 9(2), 251-263.  
doi: [10.1016/0145-2134\(85\)90018-3](https://doi.org/10.1016/0145-2134(85)90018-3)
- Lautizi, M., Laschinger, H. K., & Ravazzolo, S. (2009). Workplace empowerment, job satisfaction and job stress among Italian mental health nurses: An exploratory study. *Journal of Nursing Management*, 17(4), 446-452.  
doi: 10.1111/j.1365-2834.2009.00984.x
- [Lazarus, R. S., & Folkman, S. \(1984\). Stress, Appraisal, and Coping. New York, NY: Springer](#)

- Lee, E. H. (2012). Review of the psychometric evidence of the perceived stress scale. *Asian Nursing Research*, 6(4), 121-127. doi: 10.1016/j.anr.2012.08.004
- Letourneau, C. (1981). Empathy and stress: How they affect parental aggression. *Social Work*, 26(5), 383-389. doi: 10.1093/sw/26.5.383
- Levitt, M. J., Guacci-Franco, N., & Levitt, J. L. (1993). Convoys of social support in childhood and early adolescence: Structure and function. *Developmental Psychology*, 29(5), 811. doi: 10.1037/0012-1649.29.5.811
- Levitt, M. J., Levitt, J., Bustos, G. L., Crooks, N. A., Santos, J. D., Telan, P., Hodgetts, J. and Milevsky, A. (2005), Patterns of Social Support in the Middle Childhood to Early Adolescent Transition: Implications for Adjustment. *Social Development*, 14: 398–420. doi:10.1111/j.1467-9507.2005.00308.x
- Little, R. J., & Rubin, D. B. (2002). *Statistical Analysis with Missing Data*. New York, NY: Wiley.
- Lustig, D. C., & Akey, T. (1999). Adaptation in families with adult children with mental retardation: Impact of family strengths and appraisal. *Education and Training in Mental Retardation and Developmental Disabilities*, 260-270. Retrieved from <http://www.jstor.org/stable/23879778>
- Lyons, J. S., Uziel-Miller, N. D., Reyes, F., & Sokol, P. T. (2000). Strengths of children and adolescents in residential settings: Prevalence and associations with psychopathology and discharge placement. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(2), 176-181. doi: 10.1097/00004583-200002000-00017

- Marques, S. C., Pais-Ribeiro, J. L., & Lopez, S. J. (2011). The role of positive psychology constructs in predicting mental health and academic achievement in children and adolescents: A two-year longitudinal study. *Journal of Happiness Studies, 12*(6), 1049-1062. doi:10.1007/s10902-010-9244-4
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227. doi: [10.1037/0003-066X.56.3.227](https://doi.org/10.1037/0003-066X.56.3.227)
- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology, 2*(04), 425-444. doi: [10.1017/S0954579400005812](https://doi.org/10.1017/S0954579400005812)
- Masten, A. S., & Garmezy, N. (1985). Risk, vulnerability, and protective factors in developmental psychopathology. In B. Lahey & A. Kazdin (Eds.), *Advances in clinical child psychology* (pp. 1-52). New York, NY: Plenum Press.
- Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999). Competence in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology, 11*(01), 143-169. doi: 10.1017/S0954579499001996
- McNeely, C., & Falci, C. (2004). School connectedness and the transition into and out of Health-Risk behavior among adolescents: A comparison of social belonging and teacher support. *Journal of School Health, 74*(7), 284-292. doi: 10.1111/j.1746-1561.2004.tb08285.x
- McQuaide, S., & Ehrenreich, J. (1997). Assessing client strengths. *Families in Society: The Journal of Contemporary Social Services, 78*(2), 201-212. doi: [10.1606/1044-3894.759](https://doi.org/10.1606/1044-3894.759)

- Mead, G. H. (1934). *Mind, self and society*. Chicago, IL: University of Chicago Press.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of personality, 40*(4), 525-543. doi: 10.1111/j.1467-6494.1972.tb00078.x
- Mestre, M. V., Samper, P., Frías, M. D., & Tur, A. M. (2009). Are women more empathetic than men? A longitudinal study in adolescence. *The Spanish journal of psychology, 12*(01), 76-83. doi: 10.1017/S1138741600001499
- Mikulincer, M., & Shaver, P. R. (2005). Attachment security, compassion, and altruism. *Current Directions in Psychological Science, 14*(1), 34-38.  
doi: 10.1111/j.0963-7214.2005.00330.x
- Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin, 103*(3), 324.  
doi: 10.1037/0033-2909.103.3.324
- Moore, K. A., Chalk, R., Scarpa, J., & Vandivere, S. (2002). Family Strengths: Often Overlooked, but Real. Child Trends Research Brief. Retrieved from <https://eric.ed.gov/?id=ED468044>
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and identity, 2*(3), 223-250. doi: 10.1080/15298860309027
- Neff, K. D. (2009). The role of self-compassion in development: A healthier way to relate to oneself. *Human development, 52*(4), 211-214. doi: [10.1159/000215071](https://doi.org/10.1159/000215071)

- Neff, K. D., & McGehee, P. (2010). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity*, 9(3), 225-240.  
doi: [10.1080/15298860902979307](https://doi.org/10.1080/15298860902979307)
- Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: Two different ways of relating to oneself. *Journal of personality*, 77(1), 23-50.  
doi: 10.1111/j.1467-6494.2008.00537.x
- Nezhad, M. A. S., & Besharat, M. A. (2010). Relations of resilience and hardiness with sport achievement and mental health in a sample of athletes. *Procedia-Social and Behavioral Sciences*, 5, 757-763. doi: [10.1016/j.sbspro.2010.07.180](https://doi.org/10.1016/j.sbspro.2010.07.180)
- Ngai, F. W., & Ngu, S. F. (2016). Family sense of coherence and family and marital functioning across the perinatal period. *Sexual & Reproductive Healthcare*, 7, 33-37.  
doi: 10.1016/j.srhc.2015.11.001
- Olson, D. H. (2000). Circumplex model of marital and family systems. *Journal of Family Therapy*, 22(2), 144-167. doi: 10.1111/1467-6427.00144
- Olsson, C. A., Bond, L., Burns, J. M., Vella-Brodrick, D. A., & Sawyer, S. M. (2003). Adolescent resilience: A concept analysis. *Journal of Adolescence*, 26(1), 1-11.  
doi: 10.1016/S0140-1971(02)00118-5
- Park, Y. J., Lee, S. J., Park, E. S., Ryu, H. S., Lee, J. W., & Chang, S. O. (2000). A meta-analysis of explanatory variables of health promotion behavior. *Journal of Korean Academy of Nursing*, 30(4), 836-846. doi: [10.4040/jkan.2000.30.4.836](https://doi.org/10.4040/jkan.2000.30.4.836)



- Park, N., Peterson, C., & Seligman, M. E. (2004). Strengths of character and well-being. *Journal of Social and Clinical Psychology, 23*(5), 603-619. doi: 10.1521/jscp.23.5.603.50748
- Parker, G. R., Cowen, E. L., Work, W. C., & Wyman, P. A. (1990). Test correlates of stress resilience among urban school children. *Journal of Primary Prevention, 11*(1), 19-35. doi: 10.1007/BF01324859
- Pearson, L. C., & Moomaw, W. (2005). The relationship between teacher autonomy and stress, work satisfaction, empowerment, and professionalism. *Educational research quarterly, 29*(1), 37. Retrieved from <https://search.proquest.com/openview/0c8c8675687f906d78c7bdcb6b113732/1?pq-origsite=gscholar&cbl=48020>
- Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. (2007). Strengths of character, orientations to happiness, and life satisfaction. *The Journal of Positive Psychology, 2*(3), 149-156. doi: 10.1080/17439760701228938
- Pettitt, L. M. (2004). Gender intensification of peer socialization during puberty. *New directions for child and adolescent development, 2004*(106), 23-34. doi: 10.1002/cd.114
- Pinquart, M., & Sörensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and aging, 15*(2), 187. doi: [10.1037/0882-7974.15.2.187](https://doi.org/10.1037/0882-7974.15.2.187)
- Pogue, L. L., & AhYun, K. (2006). The effect of teacher nonverbal immediacy and credibility on student motivation and affective learning. *Communication Education, 55*(3), 331-344. doi [10.1080/03634520600748623](https://doi.org/10.1080/03634520600748623)

- Rawana, E., & Brownlee, K. (2010). *The strengths assessment inventory—manual*. Thunder Bay, ON: Centre of Excellence for Children and Adolescents with Special Needs.
- Resnick, M. D., Harris, L. J., & Blum, R. W. (1993). The impact of caring and connectedness on adolescent health and well-being. *Journal of Paediatrics and Child Health, 29*(s1). doi: 10.1111/j.1440-1754.1993.tb02257.x
- Rivera, F. I., Guarnaccia, P. J., Mulvaney-Day, N., Lin, J. Y., Torres, M., & Alegria, M. (2008). Family cohesion and its relationship to psychological distress among Latino groups. *Hispanic Journal of Behavioral Sciences, 30*(3), 357-378. doi: 10.1177/0739986308318713
- Rosario, M., Schrimshaw, E. W., & Hunter, J. (2004). Predictors of substance use over time among gay, lesbian, and bisexual youths: An examination of three hypotheses. *Addictive Behaviors, 29*, 623–1631. doi: 10.1016/j.addbeh.2004.02.032
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological bulletin, 132*(1), 98. doi: [10.1037/0033-2909.132.1.98](https://doi.org/10.1037/0033-2909.132.1.98)
- Rothmann, S., & Van Rensburg, P. (2002). Psychological strengths, coping and suicide ideation in the South African Police Services in the North West Province. *South Africa Journal of Industrial Psychology, 28*(3), 39-49. doi: 10.4102/sajip.v28i3.64
- Saewyc, E. M. (2011). Research on adolescent sexual orientation: Development, health disparities, stigma, and resilience. *Journal of Research on Adolescence, 21*(1), 256-272. doi: 10.1111/j.1532-7795.2010.00727.x

- Sarason, I. G., Sarason, B. R., & Shearin, E. N. (1986). Social support as an individual difference variable: Its stability, origins, and relational aspects. *Journal of Personality and Social Psychology, 50*(4), 845. doi: 10.1037/0022-3514.50.4.845
- Scheel, M. J., & Rieckmann, T. (1998). An empirically derived description of self-efficacy and empowerment for parents of children identified as psychologically disordered. *American Journal of Family Therapy, 26*(1), 15-27. doi: [10.1080/01926189808251083](https://doi.org/10.1080/01926189808251083)
- Selman, R. L. (1980). *The growth of interpersonal understanding: Development and clinical analyses*. New York, NY: Academic Press.
- Sharpley, C. F., & Yardley, P. (1999). The relationship between cognitive hardiness, explanatory style, and depression-happiness in post-retirement men and women. *Australian Psychologist, 34*(3), 198-203. doi: 10.1080/00050069908257454
- Shek, D. T. (2002). Family functioning and psychological well-being, school adjustment, and problem behavior in Chinese adolescents with and without economic disadvantage. *The Journal of Genetic Psychology, 163*(4), 497-502. doi: [10.1080/00221320209598698](https://doi.org/10.1080/00221320209598698)
- Soenens, B., & Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in 3 life domains: The role of parents' and teachers' autonomy support. *Journal of Youth and Adolescence, 34*(6), 589-604. doi: 10.1007/s10964-005-8948-y
- Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness satisfaction, and strain. *Journal of management, 23*(5), 679-704. doi: 10.1177/014920639702300504

- Sroufe, L. A. (1979). The coherence of individual development: Early care, attachment, and subsequent developmental issues. *American Psychologist*, 34(10), 834.  
doi: 10.1037/0003-066X.34.10.834
- Straker, G., & Jacobson, R. S. (1981). Aggression, emotional maladjustment, and empathy in the abused child. *Developmental Psychology*, 17(6), 762.  
[doi: 10.1037/0012-1649.17.6.762](https://doi.org/10.1037/0012-1649.17.6.762)
- Sun, J., & Stewart, D. (2007). Age and gender effects on resilience in children and adolescents. *International Journal of Mental Health Promotion*, 9(4), 16-25.  
doi: [10.1080/14623730.2007.9721845](https://doi.org/10.1080/14623730.2007.9721845)
- Teven, J. J. (2001). The relationships among teacher characteristics and perceived caring. *Communication Education*, 50(2), 159-169. doi: [10.1080/03634520109379241](https://doi.org/10.1080/03634520109379241)
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An “interpretive” model of intrinsic task motivation. *Academy of management review*, 15(4), 666-681. doi: [10.5465/amr.1990.4310926](https://doi.org/10.5465/amr.1990.4310926)
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Togari, T., Sato, M., Otemori, R., Yonekura, Y., Yokoyama, Y., Kimura, M., ... & Yamazaki, Y. (2012). Sense of coherence in mothers and children, family relationships and participation in decision-making at home: An analysis based on Japanese parent-child pair data. *Health Promotion International*, 27(2), 148-156. doi: [10.1093/heapro/daq081](https://doi.org/10.1093/heapro/daq081)

- Valle, M. F., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology, 44*(5), 393-406. doi: [10.1016/j.jsp.2006.03.005](https://doi.org/10.1016/j.jsp.2006.03.005)
- Van der Graaff, J., Branje, S., De Wied, M., Hawk, S., Van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: Gender differences in developmental changes. *Developmental Psychology, 50*(3), 881. doi: 10.1037/a0034325
- Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of educational psychology, 90*(2), 202. doi: 10.1.1.537.3799
- Werner, E. E. (1997). Vulnerable but invincible: High-risk children from birth to adulthood. *Acta Paediatrica, 86*(S422), 103-105. doi: 10.1111/j.1651-2227.1997.tb18356.x
- Wilks, S. E. (2008). Resilience amid academic stress: The moderating impact of social support among social work students. *Advances in Social Work, 9*(2), 106-125. Retrieved from <http://advancesinsocialwork.iupui.edu/index.php/advancesinsocialwork/article/view/51>
- Wilks, S. E., & Croom, B. (2008). Perceived stress and resilience in Alzheimer's disease caregivers: Testing moderation and mediation models of social support. *Aging and Mental Health, 12*(3), 357-365. doi: [10.1080/13607860801933323](https://doi.org/10.1080/13607860801933323)
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and quality of life outcomes, 9*(1), 8. doi: [10.1186/1477-7525-9-8](https://doi.org/10.1186/1477-7525-9-8)
- Wray-Lake, L., & Syvertsen, A. K. (2011). The developmental roots of social responsibility in childhood and adolescence. *New Directions for Child and Adolescent Development, 2011*(134), 11. doi: 10.1002/cd.308

Wolfe, D. A. (1985). Child-abusive parents: An empirical review and analysis. *Psychological Bulletin*, 97(3), 462. doi: 10.1037/0033-2909.97.3.462

Wood, A. M., Linley, P. A., Maltby, J., Kashdan, T. B., & Hurling, R. (2011). Using personal and psychological strengths leads to increases in well-being over time: A longitudinal study and the development of the strengths use questionnaire. *Personality and Individual Differences*, 50(1), 15-19. doi: [10.1016/j.paid.2010.08.004](https://doi.org/10.1016/j.paid.2010.08.004)

Yamauchi, H., Kumagai, Y., & Kawasaki, Y. (1999). Perceived control, autonomy, and self-regulated learning strategies among Japanese high school students. *Psychological Reports*, 85(3), 779-798. doi: 10.2466/pr0.1999.85.3.779

Yoo, H., Feng, X., & Day, R. D. (2013). Adolescents' empathy and prosocial behavior in the family context: A longitudinal study. *Journal of youth and adolescence*, 42(12), 1858-1872. doi:10.1007/s10964-012-9900-6

You, S., Ritchey, K. M., Furlong, M. J., Shochet, I., & Boman, P. (2011). Examination of the latent structure of the psychological sense of school membership scale. *Journal of Psychoeducational Assessment*, 29(3), 225-237. doi: 10.1177/0734282910379968v

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41.  
doi: [10.1207/s15327752jpa5201\\_2](https://doi.org/10.1207/s15327752jpa5201_2)

## Appendix

Table 1

*Descriptive Statistics*

	M (SD)	Range	Scale Range
Age	15.55 (1.26)	13-19	
BES: Total	71.16 (10.29)	46-95	20-100
BES: Cognitive Subscale	34.69 (4.77)	22-45	9-45
BES: Affective Subscale	36.47 (7.77)	11-53	11-55
CD-RISC	61.47 (16.72)	8-99	0-100
PSS	29.47 (8.68)	7-51	0-56
SAI:Y	142.50 (22.91)	65-203	0-210
Strengths at Home	18.15 (3.16)	9-24	0-24
Strengths at School	22.83 (3.85)	10-30	0-30
Strengths During Free Time	21.18 (5.11)	9-38	0-38
Strengths with Friends	15.06 (3.31)	4-20	0-20
Strengths from Knowing the Self	25.66 (6.07)	6-36	0-36
Strengths from Cleanliness and Health	10.65 (2.73)	4-16	0-16
Strengths from Being Involved	7.36 (2.52)	1-12	0-12
Strengths from Faith and Culture	10.23 (4.65)	0-20	0-20
Strengths from Goals and Dreams	11.38 (2.55)	0-14	0-14
Strengths from a Job	9.98 (4.56)	0-16	0-16
Strengths from Dating	9.25 (8.51)	0-20	0-20

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MSPSS: Total	5.08 (1.22)	1-7	1-7
MSPSS: Family Subscale	4.86 (1.55)	1-7	1-7
MSPSS: Friend Subscale	5.13 (1.37)	1-7	1-7
MSPSS: Significant Other Subscale	5.25 (1.54)	1-7	1-7
PSSM	60.49 (14.23)	19-87	18-90

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*Note.*  $N = 202$  for all measures, except Strengths from Dating,  $n = 154$ ; BES = Basic Empathy Scale, CD-RISC = Connor Davidson Resilience Scale, PSS = Perceived Stress Scale, SAI:Y = Strength Assessment Inventory: Youth Version, MSPSS = Multidimensional Scale of Perceived Social Support, PSSM = Psychological Sense of School Membership Scale.



Table 2

*Correlation Table*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. BES: Total	1									
2. BES: Cognitive Subscale	.70***	1								
3. BES: Affective Subscale	.90***	.31***	1							
4. CD-RISC	.03	.30***	-.15*	1						
5. SAI:Y	.14*	.32***	-.01	.66***	1					
6. MSPSS: Total	.11	.21**	.01	.61***	.57***	1				
7. MSPSS: Family Subscale	-.00	.07	-.05	.43***	.38***	.77***	1			
8. MSPSS: Friend Subscale	.23**	.31***	.12	.34***	.30***	.84***	.43***	1		
8. MSPSS: Significant Other Subscale	.23**	.30***	.12	.35***	.35***	.85***	.43***	.66***	1	
10. PSSM	.08	.17*	-.01	.57***	.53***	.43***	.46***	.35***	.24***	1

*Note.*  $N = 202$ . BES = Basic Empathy Scale, CD-RISC = Connor Davidson Resilience Scale, PSS = Perceived Stress Scale, SAI:Y =

Strength Assessment Inventory: Youth Version, MSPSS = Multidimensional Scale of Perceived Social Support, PSSM =

Psychological Sense of School Membership Scale. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 3

*Hierarchical Regression: Perceived Care and Empathy*

	$R^2$	$\Delta R^2$	$\Delta F$	$b(SE)$	$\beta$
<b>Step 1</b>	.16	.16	12.09***	-	-
Age	-	-	-	1.64(1.88)	.20
Grade	-	-	-	-.87(2.03)	-.10
Gender	-	-	-	7.53(1.38)	.37***
<b>Step 2</b>	.17	.01	2.60	-	-
Perceived Familial Care	-	-	-	-.40(.53)	-.06
<b>Step 3</b>	.21	.04	10.94**	-	-
Perceived Friend Care	-	-	-	1.10(.66)	.15
<b>Step 4</b>	.22	.01	1.67	-	-
Perceived Teacher Care	-	-	-	.07(.05)	.10
<b>Step 5</b>	.23	.01	2.05	-	-
Perceived Significant Other Care	-	-	-	.83(.58)	.12

*Note.* All standardized and unstandardized regression coefficients are from the final step in the analyses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4

*Hierarchical Regression: Perceived Care and Resilience*

	<i>R</i> <sup>2</sup>	$\Delta R^2$	$\Delta F$	<i>b</i> ( <i>SE</i> )	$\beta$
<b>Step 1</b>	.07	.07	5.21**	-	-
Age	-	-	-	.47(2.35)	.04
Grade	-	-	-	1.27(2.54)	.09
Gender	-	-	-	-.50(1.78)	-.02
<b>Step 2</b>	.43	.35	120.49***	-	-
Stress	-	-	-	-.88(.12)	-.46***
<b>Step 3</b>	.45	.02	10.08**	-	-
Perceived Familial Care	-	-	-	.10(.68)	.01
<b>Step 4</b>	.48	.03	9.33**	-	-
Perceived Friend Care	-	-	-	.30(.82)	.03
<b>Step 5</b>	.53	.05	21.66***	-	-
Perceived Teacher Care	-	-	-	.34(.07)	.29***
<b>Step 6</b>	.55	.02	6.68*	-	-
Perceived Significant Other Care	-	-	-	1.87(.72)	.17*

*Note.* All standardized and unstandardized regression coefficients are from the final step in the

analyses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 5

*Hierarchical Regression: Perceived Care and Strength*

	<i>R</i> <sup>2</sup>	$\Delta R^2$	$\Delta F$	<i>b</i> ( <i>SE</i> )	<i>B</i>
<b>Step 1</b>	.01	.01	.63	-	-
Age	-	-	-	3.18(3.84)	.18
Grade	-	-	-	-2.80 (4.14)	-.14
Gender	-	-	-	1.79 (2.82)	.04
<b>Step 2</b>	.15	.14	33.28***	-	-
Perceived Familial Care	-	-	-	1.67(1.08)	.11
<b>Step 3</b>	.17	.02	4.47*	-	-
Perceived Friend Care	-	-	-	-1.14(1.34)	-.07
<b>Step 4</b>	.32	.15	42.66***	-	-
Perceived Teacher Care	-	-	-	.74(.11)	.46***
<b>Step 5</b>	.35	.03	9.02**	-	-
Perceived Significant Other Care	-	-	-	3.56(1.19)	.24**

*Note.* All standardized and unstandardized regression coefficients are from the final step in the analyses. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$