The impact of positive emotions on children

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Abstract
This review discusses the impact of positive emotions on children with behavioral problems. Findings show that positive emotions share the ability to broaden an individual’s action repertoires and increase his or her physical, intellectual, social, and psychological resources (Fredrickson, 2003). As a consequence, children who experience positive emotions at a higher rate are less likely to have behavioral and academic problems. These findings are extremely important for clinical practice because, by identifying a child’s positive emotions and encouraging the child to experience these emotions, problematic behavior can be treated more effectively.

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Introduction
Emotions influence a person’s daily functions in a variety of ways. Interestingly, an individual may not be aware of the impact emotions may be playing within an individual’s life because particular emotions can occur at unconscious and conscious levels (Fredrickson, 2003). This review discusses the impact of positive emotions on children with behavioral problems. First of all, it will define and discuss the function of positive emotions and how it can help children. Findings show that positive emotions share the ability to broaden an individual’s action repertoires and increase his or her physical, intellectual, social, and psychological resources (Fredrickson, 2003). As a consequence, children who experience positive emotions
at a higher rate are less likely to have behavioral and academic problems. These findings are extremely critical for clinical practice because, by identifying a child’s positive emotions and encouraging the child to experience these emotions, problematic behavior can be treated more effectively.

**Inclusion and Exclusion Criteria**

In order to be considered for this literature review, the article had to address both advantages and disadvantages of positive emotions on children. In addition, articles that focused on children were given priority. Our focus was on articles that provided a theoretical perspective from a positive psychology view, and on articles that focused on interventions that enhance positive emotions on children. Furthermore, in order to qualify for review in this paper, we looked at positive based interventions that met three specific key criteria. The criteria is as follows: First, the interventions must have an approach that aimed to build positive factors, rather than solely focusing on the reduction of negative factors. Second, the interventions had to be implemented with students at the school, rather than youth wellbeing programs in different settings (e.g., church settings, community settings, clinical settings). Third, we looked at interventions that have been evaluated using valid and reliable research designs and measures. In conducting this review, the aim was to report the function of positive emotions on children and how present interventions were used to enhance these emotions. Future research should also address how teachers can incorporate strategies into their curriculum; and how clinicians can implement such strategies to their clinical work. Articles that did not meet specific criteria were excluded; this includes quality of research and reporting. Additionally, articles that focused solely on adults were excluded.

**Defining Emotion**

Before attempting to understand the influence of positive emotions, it is imperative to define the concept of emotions. There is an ongoing debate on the consensus of this definition; however, most researchers would agree that emotions are best understood as multicomponent response tendencies (Fredrickson, 2003). According to this viewpoint, an emotion starts with an individual’s assessment of the meaning of an event. The interpretation of the event (appraisal process) might be conscious or unconscious, and it elicits a cascade of responses, such as a subjective experience, a facial expression, cognitive processing, and physiological changes (Fredrickson, 2003). Unlike affect, emotions are typically about personally meaningful circumstances, while affect is often free-floating (Fredrickson, 2003).

Moreover, emotion theories typically link the function of emotion to the concept of specific action tendencies (Lazarus, 1991). For instance, fear is linked to the need to escape, while anger is linked to the need to attack. An important idea from this theory is that an action tendency is what makes an emotion evolutionarily adaptive (Tooby & Cosmides, 1990). Action tendencies are closely associated with physiological changes. For example, when someone feels fearful and feels the need to escape, the person experiences physiological changes that involve mobilizing autonomic support for the possibility of running (Levenson, 1994).

In addition, the concept of action tendency is key in understanding the function of emotions (Levenson, 1994). The action tendencies for positive emotions are often vague when compared to those for negative emotions (Levenson, 1994). For instance, fear has been linked to the need to escape, while joy has been linked to aimless activation, interest with attending, and contentment with inactivity (Frijda, 1986). This can be challenging because if action tendencies are triggered by vague positive emotions, their effect on survival may be weak.

**Function of Positive Emotions**

In Fredrickson’s theory of positive emotions (2001), he explained that although positive emotions are very different, they all share the ability to broaden the individual’s action repertoires and to increase his or her physical, intellectual, social, and psychological resources. Positive emotions broaden individuals’ thought action repertoires by extending the array of the thoughts and actions that come to mind (Fredrickson & Branigan, 2005). Children who are able to experience positive emotions at an early age have more opportunities to develop coping skills and are more eager to learn new skills.

Additionally, to better understand how positive emotions broaden a person’s thoughts and action repertoires, a few examples will be discussed. For instance, the positive emotion of joy expands a person’s repertoire by creating the urge to play (Fredrickson & Branigan, 2005). When children are happy, they are more likely to be creative and to be involved in play. Thus, children have more opportunities to be more communicative and to develop social skills. Also, happiness motivates children to play and to become more creative, thus furthering their learning of social and problem-solving skills. Furthermore, interest helps the individual develop the need to explore and absorb new information to expand himself or herself in the process.
Positive Emotions as a way of broadening repertoire and attention
Evidence suggests that the resources that positive emotions provide broaden the scope of children’s attention, cognition, and action by building physical, intellectual, and social resources (Fredrickson & Levenson, 1998). Isen and colleagues (1993) found that individuals who experienced positive emotions showed an increase in creativity and efficiency, and they were more open to information. In addition, the experience of positive emotions is related to an increased preference for variety and acceptance (Kahn & Isen, 1993). Isen’s (1993) research provides evidence that positive emotions broaden cognition. In contrast, negative emotions narrow a person’s attention. Negative emotions, such as sadness and anger, predict bias consistent with narrow attention. Meanwhile, research has indicated positive emotions are more related to subjective well-being optimism and success, thus predicting broadened attention (Basso, Scheft, Ris, & Dember, 1996).

Positive emotion as an antidote for negative emotions
Apart from broadening a child’s repertoire and attention, positive emotions can impact the way in which children process negative emotions (Fredrickson & Levenson, 1998). Whereas negative emotions narrow the thought-action repertoire, positive emotions broaden this same repertoire. Therefore, positive emotions function as efficient antidotes for reducing the effects of negative emotions. Positive emotions can undo the effects of negative emotions by expanding an individual’s repertoire (Fredrickson & Levenson, 1998). Positive emotions can essentially loosen the hold that negative emotions have gained on a person.

An additional example of how positive emotions might act as an antidote for negative emotions is by accelerating cardiovascular recovery (Fredrickson & Levenson, 1998). Negative emotions are associated with increased cardiovascular activity. Positive emotions can speed the recovery from cardiovascular reactivity by making the body return to midrange levels of activation (Fredrickson & Levenson, 1998). Fredrickson and Levenson (1998) tested this recovery process by measuring the time that elapsed from the start of a randomly assigned film to when the cardiovascular reaction induced by negative emotions returned to baseline levels. Results revealed that in three independent samples, individuals with positive-emotion conditions (joy and contentment) exhibited faster cardiovascular recovery than did those in neutral conditions (Fredrickson & Levenson, 1998).

Positive emotions foster physical health
Furthermore, positive emotions are beneficial because they foster physical health (Salovey, Rothman, Detweiler & Steward, 2000), negative emotions have been known as one possible etiology of coronary heart disease (Blascovich & Katkin, 1993). If positive emotions can undo some of the effects of negative emotions, they may slow the progression of disease. Positive emotions help individuals find meaning in life and lead to numerous social benefits (Blascovich & Katkin, 1993). Consequently, individuals who experienced positive emotions with parents, siblings, and friends were less likely to have high levels of cumulative deterioration of their bodies than others were (Ryff & Singer, 1998). Similarly, in a longitudinal study, individuals who reported having positive emotions compared to those with less positive emotions were less likely to have disabilities or death during a two-year follow-up (Ostir, Markides, Black, & Goodwin, 2000). These findings suggest that positive emotions are important for psychological and physical functioning.

Positive Emotions Promote Resiliency
Another benefit of positive emotions is that they promote resiliency in children through the cultivation of positive
Likewise, these emotions have been shown to have positive influences on the child’s academic success (Seligman, Ernst, Gillihan, Reivich & Linkins, 2009).

Different studies have predicted that focusing on positive emotions and teaching well-being to children help them to improve academically. For instance, a study investigated the relationship between hope, life satisfaction, mental health and academic achievement in Portuguese students, examining both the relationships on a cross-sectional basis as well as longitudinal (Marques, Ribeiro & Lopez, 2011). Results indicated that positive variables were significantly related to future measures of academic achievement to the extent of two years in the future. A study such as this one provides the support that when positive emotions are incorporated into positive psychology, there will be a long-lasting, durable effect on children, allowing for the opportunity of success. In fact, reported levels of hope, life satisfaction and self-worth demonstrated moderate to strong level of academic achievement across the three time periods. Positive emotions have shown to be an important factor in a child’s development through their psychological well-being in addition to their academic success (Marques, Ribeiro & Lopez, 2011). Studies suggest that positive emotions can be taught at school and that the study of positive emotions would increase learning (Isen et al., 1991; Kuhl, 2000). An increase in well-being is likely to produce an increase in learning because positive mood produces broader attention, more creative thinking, and more holistic thinking (Isen et al., 1991; Kuhl, 2000). Usually, schools focus on critical thinking rather than creative thinking. Negative emotions may only facilitate critical thinking without giving many opportunities for creative thinking. Whereas positive emotions and well-being can help a child academically, by being an antidote to depression, increasing life satisfactions, and improving creative thinking (Seligman et al., 2009).

**Positive Psychology**

Having discussed the benefits of positive emotions, it is essential to discuss the form in which this concept has been implemented in the field, particularly positive psychology. It is important to note most research in the past has focused primarily on the negative and problematic behaviors in children (Marques, Ribeiro & Lopez, 2011). The positive psychology initiative focuses on the science of well-being and adds to the development of positive emotions helping children prosper (Pajares, 2001). The benefits mentioned previously such as resiliency, broader repertory, psychological and physical functioning, will impact the child’s academic performance and behavior. Positive psychology explores different emotions and how they foster well-being in children. Clinically, the positive psychological initiative has important implications because it shifts from a negative aspect towards a positive one. Particularly having a focus on positive emotions may lead to success in children in a variety of ways by reducing behavioral problems and improving academic performance (Marques, Ribeiro & Lopez, 2011).

Findings in positive psychology report that positive emotions are related to positive characteristics in children, academic achievement, and mental health. This suggests the strong impact of positive emotions as a means to influence valued outcomes in children. As previously mentioned, positive emotions make the child more resilient, physically healthier, and provides coping skills, by influencing the child’s behavior in a positive manner. Similarly, these emotions have been shown to have positive influences on the child’s academic success (Seligman, Ernst, Gillihan, Reivich & Linkins, 2009).

Positive Psychology Interventions

Today there are existing programs that promote positive emotions. The Penn Resiliency Program (PRP) and the Starth Haven Positive Psychology Curriculum encourage positive emotions in children (Seligman et al., 2009). The major goal of these programs is to increase students’ ability to handle daily stressors and common problems that students may exhibit during adolescence. Specifically, the Penn Resiliency Program (PRP) is a curriculum-based program that is designed to boost student resilience; and has been implemented in schools in the United States of America, United Kingdom, Australia, China, and
Portugal. The program teaches cognitive reframing, assertiveness, decision making, coping skills, creative brainstorming and relaxation; and has been used with students from ages 8 to 15 years old. Seligman et al. (2009) reviewed the findings from 17 studies, in which compared over 2,000 students who participated in the PRP program compared to the students in the control groups, and indicated that the PRP resiliency training reduced symptoms of depression, hopelessness and anxiety. Encouragingly, the positive benefits of the PRP appeared to be long lasting, with significant improvements in well-being.

Additionally, Froh, Sefick, and Emmons (2008) developed a different intervention named a ‘counting blessings’; that was aimed for both sixth and seventh graders. A study was completed using the intervention in which the students were randomly assigned to the following three conditions: gratitude, hassles and a no treatment condition. Specifically, four classes were allocated to the gratitude condition, four classes were allocated to the hassles condition, and three classes served as the no-treatment controls. Students in the gratitude and hassles classrooms were asked by their teachers to complete a daily journal for 2 weeks in which they recorded up to five things they were grateful for. On the other hand, students in the hassles condition were asked to write about things that irritated or annoyed them. Measures of psychological, physical and social wellbeing were taken at pretest, immediate posttest, and a 3-week follow-up. The students in the blessings condition reported higher levels of improvements in gratitude, optimism and life satisfaction than their fellow students in the hassles and control groups. Compared to the hassles or control conditions, students instructed to count their blessings, reported higher levels of satisfaction with their school experiences’ and a reduction in behavioral problems evidenced by teacher’s reports (Seligman et al., 2009).

Furthermore, Frederickson (2009) lists serenity as one of the top 10 most important positive emotions and characteristics. Serenity can be defined as feelings of peacefulness, stillness, and calmness (Frederickson, 2009). Research has shown that this emotion allows for insight generation, expanded attention, integration of thoughts and emotions, stress reduction and heightened compassion (Keegan, 2009; Levine, 2009; Thygeson, Hooke, Clapsaddle, Robbins, & Moquist, 2010). Research evidence suggests that many students do not feel calm or peaceful when they are at school and/or at home (Grannis, 1992; Burchinal, Roberts, Zeisel, & Rowley, 2008; Byrne, Davenport, & Mazanov, 2007). One intervention used to promote serenity is Transcendental Meditation. Transcendental Meditation promotes physical relaxation by the regular practice of a relaxation procedure that entails the repetition of a mantra to block distracting thoughts. Nidich et al. (2011) evaluated the use of the Transcendental Meditation program on students’ wellbeing, social behavior, and academic performance, for middle-school students in a public school in California. Students (n = 125) placed in the experimental group engaged in a 12-minute meditation session at the start and the end of the school day for 3 months. Those in the control group participated in the school’s quiet program for 12 minutes of quiet time each day, but did not meditate. Compared to the control group, teachers reported the students in the meditation group were calmer, happier, friendlier, less hyperactive and had an increased ability to focus on the schoolwork. Teachers reported that the students in the meditation group were calmer, happier, less hyperactive, friendlier and had an increased ability to focus on schoolwork, compared to preprogram (Keegan, 2009; Levine, 2009; Thygeson, Hooke, Clapsaddle, Robbins, & Moquist, 2010). The results showed that forty-one percent of the meditating students showed a gain of at least one performance level and a decrease in behavioral problems.

In Australia, Bernard and Walton (2011) evaluated the efficacy of a social and emotional resiliency skills curriculum called ‘You Can Do It!’ (YCDI). YCDI provides lessons on positive emotions, resiliency, confidence, and persistence. The study compared six government schools that implemented the YCDI program, along with six government schools that did not implement the program. All of the students used in the study were from the 5th grade level. Students were compared on their responses on the Student Attitudes to School Survey, which assesses student self-reports on wellbeing, teaching, and learning. Participants were tested in the 5th grade and once again in the 6th grade. Over the 1-year period, the self-report data provided by students in the YCDI schools reported significant improvements in student morale, stimulating learning, school connectedness, student motivation, learning confidence, connectedness to peers, classroom behavior and student safety.

The programs mentioned promote positive emotions, by teaching children in school settings, to develop positive cognitions that will then lead to positive emotions. Findings suggest that both programs produce positive improvement in student’s academic performance by increasing student report of enjoyment and engagement in school. As the children’s positive
emotions increase, consequently, the children that participate in these programs improve academically and have less behavioral problems. (Cutuli, Chaplin, Gillham, Reivich & Seligman, 2006).

Another benefit from such programs is the integral component of the intervention involves teaching the participants to cognitively challenge inaccurate, negative self-perceptions and interpretations of their experiences (Cutuli, Chaplin, Gillham, Reivich & Seligman, 2006). Evidence suggests that the program is efficacious in preventing psychopathological symptoms of conduct disorders. If children with elevated conduct problems have more negative experiences, then interventions like PRP that specifically target negative interpretations of these experiences may be particularly efficacious in preventing children who experience high rates of negative emotions. In addition, by providing children with a broadened repertoire, positive emotions allow children to have more skills to use when dealing with a challenging situation (Fredrickson & Levenson, 1998). Thus, when dealing with a challenging problem or when dealing with frustration, the child has various coping skills that he/she can use rather than acting out or misbehaving.

Findings that positive emotions can impact children’s learning process, and behavioral problems have important clinical implications. To start off, we can find ways in practice to improve and provide clients the opportunity to practice the experience of emotions and discuss with children the importance of positive emotions. Accordingly, this can strengthen the support of having a positive perspective when treating children (Pajares, 2001). Research should explore whether positive psychology can be incorporated in parent and teacher trainings to have a more positive perspective with children and develop an intervention to increase positive emotions in children.

Future Research Recommendations
Despite these past findings, in future research it would be interesting to investigate more in depth whether some of the benefits generated from positive emotions such as resiliency, can be directly correlated to their cognitions (Fredrickson, 2002). For example, future research on the way resilient individual’s think and whether it is as broadly as Fredrickson’s theory suggest. In addition, trainings can be created with a positive psychology approach encouraging both parents and children to experience positive emotions more often (Marques, Ribeiro & Lopez, 2011). Parent trainings could incorporate positive psychology to learn the various benefits their children might have by experiencing positive emotions more often than negative emotions. By including positive psychology into parent trainings, parents can learn to model positive emotions and provide opportunities for children to experience positive emotions. Additionally, as it has been mentioned, research suggests that the experience of positive emotions improves child academic performance and reduces problematic behavior; however, more research could be conducted to better incorporate positive psychology interventions into classroom management and teacher curriculums (Seligman et al., 2009).

Conclusion
In all, positive emotions can have a fundamental impact on a child’s developmental success. It is clear that positive emotions have been incorporated into positive psychology in an attempt to promote well-being in children. In doing so, there is strong support that positive emotions allow for better and valued outcomes in children. Findings mentioned in this paper support that positive emotions allow children to broaden their thought action tendency and build their personal resources which in turn provides an improvement in both behavior and academic success.

Citation
References


