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Emotion Socialization, Anxiety, and Coping in University Students

By

Clare D. R. Hinch

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of **Psychology**
in Partial Fulfillment of the Requirements for
the Degree of **Master of Arts**
at the University of Windsor

Windsor, Ontario, Canada

2018

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Emotion Socialization, Anxiety, and Coping in University Students

by

Clare D. R. Hinch

APPROVED BY:

G. Salinitri
Faculty of Education

K. Soucie
Department of Psychology

J. Hakim-Larson, Advisor
Department of Psychology

September 10, 2018

DECLARATION OF ORIGINALITY

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ABSTRACT

The purpose of the current study was to investigate emotion socialization in childhood as a predictor of anxiety and coping in adulthood. University undergraduate students ($N = 204$) completed online self-report questionnaires on the history of their childhood emotion socialization, their trait and public speaking anxiety, and coping behaviours. Participants ranged in age from 18 to 44 years (29 men and 164 women). Self-report by participants of emotion socialization by their mothers in childhood significantly predicted current trait anxiety, adaptive coping, and maladaptive coping. Self-report by participants of emotion socialization by their fathers in childhood significantly predicted current trait anxiety, maladaptive coping, and cognitive public speaking anxiety. Additionally, there was a significant indirect effect between emotion socialization and total public speaking anxiety through trait anxiety. In general, results indicate that emotion socialization by both mothers and fathers in childhood is related to some aspects of anxiety and well-being in university, undergraduate students.

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This Master's Thesis is dedicated to Aubrey – a constant source of joy and perspective. I love you.

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CHAPTER 1

INTRODUCTION

To understand the impact of emotion socialization in childhood by mothers and fathers, it is important for research to explore which factors or processes may be associated with how successfully parents are able to display emotional awareness, acceptance, and coaching (Gottman, Katz & Hooven, 1996). As reviewed further throughout this introduction, when children's emotions are validated and accepted by their parents, as well as processed and understood with their parent's guidance, children can experience a number of immediate and long-term benefits (Gottman et al., 1996). These benefits include, but are not limited to, higher emotional intelligence (Alegre, 2011), increased well-being (Gus, Rose, & Gilbert, 2015), and improved emotional and physiological regulation (Gottman et al., 1996). Outcomes of specific interest in the current study are trait anxiety, public speaking anxiety, and coping. University undergraduate students experience varying degrees of stress and anxiety that require effective, adaptive coping strategies. For instance, undergraduate students are often required to speak in front of their professors and peers, both through formal presentation and informal classroom discussion. This can be an anxiety provoking task eliciting a number of negative cognitive, physiological, and behavioural responses, such as increased heart rate and the expectation of negative evaluation (e.g., Bodie, 2010; Witt et al., 2006).

The purpose of the current study was to investigate emotion socialization in childhood as a predictor of anxiety and coping outcomes in adulthood. The link between less successful or unsuccessful emotion socialization in childhood and university

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undergraduate's level of trait anxiety and public speaking anxiety, as well as the adaptiveness of their coping strategies, were explored.

Emotion Socialization in Childhood

Emotion socialization can be defined as parenting behaviours that target the emotional competence of children (Eisenberg, Cumberland, & Spinrad, 1998). Although parents are not the only socializers of emotion in a child's life, they play a unique and important role in this process (e.g., Gottman et al., 1996). How parents socialize emotion is heavily influenced by the parent's own philosophy on emotion; in other words, how parents think and feel about emotion is related to how they socialize emotion in their children (Gottman et al., 1996). Four unique parenting styles have been identified in order to describe parental emotion socialization in childhood (Gottman, 1997). Emotion socialization involves three components (parental acceptance of emotion, awareness of emotion, and emotion coaching), the presence or absence of which determines designation of parenting style. The following parenting styles each involve one or more missing component, as described above: (1) *laissez-faire*: parental awareness and acceptance without aid in regulation and processing; (2) *dismissing*: little parental awareness without aid in regulation and processing; and (3) *disapproving*: little parental awareness and acceptance, as well as proactive criticism and punishment of negative emotions (Gottman, 1997). As discussed further below and of particular interest in the proposed study is the fourth and final parenting style, emotion coaching.

Emotion coaching. Emotion coaching involves the presence of all three components: parental awareness, acceptance and validation, as well as aid in the regulation and processing of the child's emotions (Gottman et al., 1996; Gottman, 1997).

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The emotion coaching parenting style is of particular interest as it has been associated with a number of positive outcomes, including higher emotional intelligence in children (Alegre, 2011), improved childhood well-being (Gus et al., 2015), and increased regulatory ability (Gottman et al., 1997).

For instance, in a study of 3- to 7-year-old children, explicit parental emotion coaching was related to a quicker physiological return to baseline following a disappointment task, as measured by respiratory arrhythmia (Shih, Quinones-Camacho, & Davis, 2017). Thus, by utilizing emotion coaching techniques, parents may be able to foster adaptive physiological regulation in their children. Also demonstrated by Shih and colleagues (2017) is the importance of understanding how the individual aspects of emotion socialization (i.e., acceptance, awareness, and emotion coaching) may be related to the above outcomes. Although a vast amount of research has been conducted on childhood emotion socialization with child and adolescent participants, fewer studies have considered the implications of childhood emotion socialization processes that may extend into adulthood. However, research has demonstrated that negative parenting behaviours, such as child maltreatment, can increase the risk of experiencing both internalizing and externalizing disorders across the lifespan (Beauchaine & Hinshaw, 2017; Scott, Smith, & Ellis, 2010). As such, one aim of the current study was to examine the possible implications of emotion socialization in childhood on the long-term functioning of males and females.

Emotion socialization and gender. Past research has identified that the gender of both children and their parents may influence the process of emotion socialization in childhood. For instance, research has demonstrated that parents socialize emotions

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differently depending on whether the child is a boy or a girl (Brown, Craig, & Halberstadt, 2015). Gender stereotypes and societal norms may explain this difference and may influence whether the expression of any particular emotion is considered appropriate or not appropriate. For instance, in a sample of European American families, both mothers and fathers were found to discuss emotion more frequently with daughters than with sons (Fivush, Brotman, Buckner, & Goodman, 2000). In addition, Brown and colleagues (2015) explored how mothers and fathers express their own emotion within the home, as well as their reaction to negative emotionality in their children. Results indicated that mothers were more positively expressive when compared to fathers, and that fathers demonstrated less support of negative emotionality (e.g., fear) when compared to mothers (Brown et al., 2015). Taken together, these results not only validate the need to consider gender of both parent and child when exploring emotion socialization in childhood, but also suggest that gender may influence the socialization process of specific emotions.

Anxiety and Emotion Socialization

In the current study, the emotion of interest is anxiety. Given what is known about the benefits of successful emotion socialization, how emotions are socialized in childhood may increase susceptibility to anxiety, as well as influence how individuals are able to regulate during anxiety provoking situations. Anxiety is a natural, evolutionary human response defined as anticipation of a future threat (American Psychiatric Association, 2013). However, when the level of anxiety is determined by a clinician to be disproportionate to the actual threat or occur in the absence of a threat, an anxiety disorder is present (American Psychiatric Association, 2013; Baxter, Scott, Vos, &

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Whiteford, 2013). Diagnosis of a specific anxiety disorder is determined based on the feared object or situation (American Psychiatric Association, 2013). Anxiety disorders are the most common type of psychopathology in childhood (Lepine, 2002), can often continue into adolescence and adulthood, and increase the risk of experiencing comorbidity (Costello, Egger, & Angold, 2005; Rapee, Schniering, & Hudson, 2009). For instance, anxiety disorders are commonly comorbid with depression and other anxiety disorders in youth samples (Costello et al., 2005).

It is important to distinguish between two types of anxiety: state and trait. State anxiety is temporary anxiety that is experienced within a specific context (Witt & Behnke, 2006). In contrast, trait anxiety describes a stable element of one's personality, which is consistent and pervasive across situations and time (McCroskey, Daly, & Sorensen, 1976). As will be discussed in more detail, public speaking anxiety refers to anxiety surrounding oral presentations (Bodie, 2010) and will be considered an instance of state anxiety. There are multiple reasons that have been suggested for individual differences in state and trait anxiety levels, one of which is parental emotion socialization.

Hurrell, Houwing, and Hudson (2017) explored how parents' own philosophy on emotion might be related to anxiety disorders in childhood and adolescence. Parents of children diagnosed with an anxiety disorder were compared to parents of children without an anxiety disorder. Relevant to the current study, parents' awareness of their child's emotions and parents' emotion coaching behaviours were measured through both observation and self-report. Results indicated that parents of children with an anxiety disorder had less awareness of their child's emotions and engaged in less emotion

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coaching when compared to parents of children without an anxiety disorder. Thus, results of Hurrell and colleagues (2017) demonstrate the relation between how emotions are socialized in childhood and anxiety in childhood and adolescence. However, it remains to be seen how emotion socialization in childhood might be related to anxiety in a university population. Given that anxiety disorders can often persist into adulthood (Costello et al., 2005), trait anxiety and public speaking anxiety were explored in the current study and were selected specifically because of their relevance to those completing undergraduate studies.

Coping, Emotion Regulation Strategies, and the Reduction of Anxiety

There are a number of risk and protective factors that can interact to influence individual susceptibility to psychopathology (Beauchaine & Hinshaw, 2017). Taking a developmental psychopathology approach, emotion socialization in childhood is conceptualized as one factor that can either serve a protective function, if successful, or increase vulnerability, if unsuccessful. That being said, many etiological factors may contribute to the development of psychopathology; it is an incredibly dynamic process that requires consideration of pre-existing genetic variability, environment, and developmental stage (Beauchaine & Hinshaw, 2017). Given that coping adaptively in response to adversity is a necessary component of resilience (Beauchaine & Hinshaw, 2017), one aim of the current study was to further explore the relation between emotion socialization in childhood and university students' ability to cope with a developmentally relevant stressor.

It is important to make a distinction between coping and emotion regulation, as the two concepts are distinct, yet often used interchangeably. Compas and colleagues

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(2014) summarized both the common and the distinguishing features of these two constructs. For instance, both coping and emotion regulation involve purposive behaviour and processes of regulation when under stress. However, unlike emotion regulation, which includes both controlled and automatic processes, coping is solely a controlled process. Additionally, whereas emotion regulation occurs in a range of situations, coping occurs only as a response to stress. Thus, coping is a particular type of emotion regulation, specific to the controlled handling of emotions under stress. Based on these distinctions articulated by Compas and colleagues (2014), the proposed study will explore coping, conceptualized as a specific form of emotion regulation.

Classification of coping strategies: Adaptive and maladaptive. Effort has been made to classify ways of coping into meaningful categories, however doing so is inherently difficult (Skinner, Edge, Altman, & Sherwood, 2003). For instance, categories that are too specific may lack meaning and reduce generalizability, whereas categories that are too broad may lack important nuance (Lazarus & Folkman, 1987). Although ways of coping can be categorized as generally adaptive or maladaptive, truly determining adaptability is more complex, dependent on the individual and the situation in which the particular coping strategy is being used (Lazarus & Folkman, 1987). However, there are particular coping strategies that can be conceptualized as typically adaptive (e.g., use of emotional support) or typically maladaptive (e.g., substance use). As described by Skinner and colleagues (2003), adaptive and maladaptive composites are best understood as higher-order categories of coping and are used to categorize coping in the current study. That being said, it is acknowledged that use of these categories is

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fundamentally imperfect, in that no coping strategy is always adaptive or maladaptive and this classification may disguise important distinctions.

As relevant to the current study, a number of empirically supported coping strategies exist for managing anxiety as a result of a social stressor. For instance, a study conducted by Helbig-Lang, Rusch, Rief, and Lincoln (2015) utilized a largely female, community sample to compare the effectiveness of three coping strategies in reducing anxiety prior to a public speaking task: acceptance, reappraisal, and distraction. The acceptance condition resembled a mindfulness condition, asking participants to observe their feeling nonjudgmentally. The reappraisal condition asked participants to engage in positive and encouraging self-talk, while the distraction condition asked participants to complete a crossword puzzle. Participants were randomly assigned to one of three coping strategies and asked to employ that strategy during the 15-minute anticipatory period prior to the public speaking task. Results indicated that all three coping strategies reduced anxiety during the initial anticipatory period; however, there was an increase in anxiety immediately prior to the public speaking task, regardless of condition. Of note, the acceptance condition was identified by participants as being the most difficult to implement. The researchers hypothesized that acceptance may require more intensive training (Eifert et al., 2009) and that heightened awareness may actually have contributed to or been confused with heightened arousal. In this study, acceptance, cognitive reappraisal, and distraction were all considered to be potentially adaptive coping strategies that, if utilized properly, could aid in the reduction of anticipatory public speaking anxiety (Helbig-Lang et al., 2015).

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A number of treatments exist, designed in an effort to reduce maladaptive and improve adaptive coping strategies, but ultimately, to reduce discomfort associated with social anxiety. Goldin and colleagues (2016) had participants from a clinically-elevated community sample complete thirty hours of therapeutic treatment. More specifically, researchers compared cognitive-behavioural group therapy and mindfulness-based stress reduction in participants diagnosed with social anxiety disorder. Driven by previous research, it was hypothesized that cognitive-behavioural group therapy would be the superior form of treatment for social anxiety disorder. However, results indicated that both cognitive-behavioural group therapy and mindfulness-based stress reduction were efficacious, significantly improving social anxiety disorder symptoms when compared to a wait-listed control group. In recent years, the exploration of mindfulness-based coping strategies has been of particular interest. A number of studies have corroborated the above finding, providing empirical evidence for the effectiveness of mindfulness-based strategies as both an alternative or an addition to other therapeutic techniques (Burton, Schemertz, Price, Masuda & Anderson, 2012; Kocovski, Fleming, Hawley, Ho & Antony, 2015). Participation in these therapeutic modalities can equip individuals with effective coping strategies, reducing symptoms associated with social anxiety disorder.

In short, effective coping strategies may serve a protective function, as research has demonstrated that the ability to cope with emotion can build resilience and reduce the likelihood of psychopathology (Beauchaine & Hinshaw, 2017). For instance, Mahmoud, Staten, Lennie and Hall (2015) explored maladaptive coping, operationally defined as passive coping strategies (e.g., avoidance, substance use, etc.). Results indicated that maladaptive coping was related to higher levels of anxiety in a sample of university

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students (Mahmoud et al., 2015). As such, it is important to identify adaptive and efficacious coping strategies. Regardless of what specific strategy is used to cope, an important factor may be the individual's perceived ability to cope with an anticipated stressor such as giving an oral presentation to classmates (Helbig-Lang, Lang, Petermann, & Hoyer, 2012). Helbig-Lang and colleagues (2012) explored perceived participant ability to cope with anticipatory anxiety, defined as anxiety experienced prior to an actual or perceived stressor. Results were in the expected direction, with higher levels of perceived ability to cope associated with lower levels of anticipatory anxiety.

Additionally, there is research to suggest that individuals diagnosed with social anxiety disorder have more difficulty using coping strategies during the anticipatory period than those not diagnosed with social anxiety disorder (Helbig-Lang et al., 2015). Thus, perceived ability to cope and a diagnosis of social anxiety disorder may be related to an individual's ability to utilize efficacious coping strategies that include, but are not limited to, mindfulness and acceptance-based approaches, cognitive reappraisal, and distraction (e.g., Helbig-Lang et al., 2015). These coping strategies may be particularly important for undergraduate, university students who are expected to complete specific, developmental tasks, one of which is the ability to communicate and disseminate information orally.

Public Speaking Anxiety

Public speaking is a potentially anxiety provoking social task that students are likely required to cope with in some of their courses. Public speaking anxiety is associated with social anxiety disorder, defined by the American Psychiatric Association (2013) as "fear or discomfort in a number of different social situations". More specifically, public speaking anxiety refers to anxiety as a result of "the real or

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anticipated enactment of an oral presentation” (Bodie, 2010). Social anxiety disorder and public speaking anxiety are closely related (Pull, 2012); results from a 10-year, longitudinal study indicated that around 70% of those with social anxiety disorder also experienced public speaking anxiety (Knappe et al., 2011).

Although public speaking anxiety remains an instance of social anxiety, public speaking anxiety is now also encompassed in the “Performance Only” specifier of social anxiety disorder in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V); this specifier is used to describe a situation in which the social anxiety is limited to performance situations only (American Psychiatric Association, 2013). However, this specifier does not differentiate public speaking anxiety from other sources of performance anxiety, such as singing, dancing, or acting in front of an audience. Notably, individuals without this specifier may still experience performance anxiety and/or public speaking anxiety, but simply experience social anxiety in non-performance situations as well. In sum, those classified with social anxiety disorder are a diverse group and may or may not have any of a variety of forms of performance-related anxieties.

In the following sections, the experience of public speaking anxiety will be discussed in more detail using a three systems model that distinguishes between the cognitive, physiological, and behavioural responses of university students to a public speaking task (Bodie, 2010; Lang, 1968).

Cognitive processes and public speaking. Public speaking anxiety is often associated with cognitive, or psychological, manifestations of anxiety. Researchers have identified a number of cognitive processes that are more common in individuals high in

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social anxiety, including an expectation of negative evaluation (Wilson & Rapee, 2005) and an underestimation of public speaking abilities (Alden & Wallace, 1995). These cognitive processes are measured using self-report questionnaires (Bodie, 2010; McCroskey, 1997) and are related to anxiety reaction during a public speaking task.

Research has demonstrated the relation between cognitive and physiological manifestations of public speaking anxiety. Feldman, Cohen, Hamrick, and Lepore (2004) asked a sample of undergraduate, university students to either give an evaluative oral presentation or to read aloud from a passage, without being evaluated. Physiological response to the task was assessed using a measure of heart rate and blood pressure, while cognitive response was assessed through self-report measures. Of particular interest is the measure of threat emotion, gathered by asking participants to self-report the extent to which they felt overwhelmed, nervous, worried, or fearful. Results indicated that threat emotion partially accounted for cardiovascular response, suggesting that cognition during a public speaking task might actually influence physiological response (Feldman et al., 2004).

Emotion socialization may also play an important role in the cognitive response to a public speaking task. For instance, emotion coaching in childhood may equip individuals with cognitive strategies that reduce the intensity or duration of unhelpful cognitions (e.g., expectation of negative evaluation; Wilson & Rapee, 2005).

Additionally, anxious children have been demonstrated to have a number of cognitive biases (e.g., interpretive bias, judgment bias, etc.) that contribute to the anxiety response (Beauchaine & Hinshaw, 2017; Viana, Dixon, Stevens, & Ebesutani, 2016). It stands to reason that successful emotion socialization in childhood may reduce, or improve control

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over, unhelpful cognitive distortions when exposed to an anxiety provoking situation such as a public speaking task.

Physiological responses and public speaking. Public speaking anxiety is also associated with the activation of the autonomic nervous system, resulting in a number of physiological responses (Bodie, 2010). Physiological response is commonly measured using both self-report questionnaires and direct observation. For instance, Clements and Turpin (1996) explored palmar sweat gland response to a public speaking task in a sample of undergraduate students. Results demonstrated elevated levels of palmar sweat both before and during the task (Clements & Turpin, 1996). Examination of physiological response during a public speaking task through direct measurement has also identified increased heart rate and blood pressure (Bodie, 2010). Alternatively, examination through self-report has identified gastrointestinal upset, numbness, and feelings of dis-reality to be physiological manifestations of public speaking anxiety (Witt et al., 2006).

Past research has identified that emotion socialization may be related to physiological response (e.g., Gottman et al., 1996; Kehoe, Havighurst, & Harley, 2014). For instance, Karkhais and Winsler (2016) explored somatization and anxiety response in a sample of 10- to 13-year-old children. Results indicated that increased maternal emotion coaching predicted fewer somatic symptoms (Karkhais & Winsler, 2016). Additionally, use of emotion coaching techniques have been related to improved physiological response in a sample of 3- to 7-year-old children (Shih et al., 2017). Given that the anxiety response is relatively stable across the lifespan (Costello et al., 2005), more successful emotion socialization in childhood may be related to the physiological response of undergraduate, university students to a public speaking task.

Behavioural responses and public speaking. Lastly, public speaking anxiety is often associated with behavioural manifestations which can signal the speaker's anxiety to audience members (Mulac & Sherman, 1975). The Social Performance Rating Scale (Fydrich, Chambless, Perry, Buergener, & Beazley, 1998), initially developed to measure discomfort in a number of social situations, has since been validated for the assessment of public speaking anxiety in a clinical sample of adults (Harb, Eng, Zaider, & Heimberg, 2003). In part, the scale measures visible displays of discomfort, measured through observation during a public speaking task (Fydrich et al., 1998; Harb et al., 2003). The Social Performance Rating Scale (Fydrich et al., 1998) identifies the following behaviours to be indicative of discomfort during a public speaking task: rigidity of the body, leg movements, fidgeting, facial tics, frequent throat clearing, stuttering, or swallowing, and inappropriate laughing. Based on Fydrich and colleagues (1998), the degree to which individuals engage in these behaviours indicates how anxious they are during the task. In addition, a self-report measure of public speaking anxiety (Bartholomay & Houlihan, 2016) identifies fidgeting, trembling voice, reduced eye-contact, and shaking hands to be indicative of public speaking anxiety.

The Relation between Trait and Public Speaking Anxiety

As previously described, trait anxiety is defined as a stable personality feature, associated with anxiety across situations and time (McCroskey et al., 1976). Beatty and Friedland (1990) identified trait anxiety as being a factor that might increase susceptibility to public speaking anxiety in undergraduate students. In this study, participants gave a 5 to 7 minute speech as part of an undergraduate public speaking course. The speech was evaluated and contributed to their grade in the course. Results

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indicated that personal, trait-like factors were more predictive of public speaking anxiety than were situational or external factors; trait versions of novelty, conspicuousness, and subordinate status were more predictive of performance anxiety than state versions of these same variables. For example, the trait version of subordinate status (“Generally, I believe that most other students are better at public speaking than I am”; Beatty & Friedland, 1990, p. 114) was more predictive of performance anxiety than its state counterpart (“The other students in class seem to be better at this type of presentation than I am”; Beatty & Friedland, 1990, p. 114). More recent research has corroborated these findings, suggesting an association between trait anxiety and public speaking anxiety. For example, research has demonstrated that the presentation of public speaking anxiety may differ depending on whether the individual is high or low in trait anxiety; in a university, undergraduate sample, those high in trait anxiety experienced significantly higher levels of state anxiety throughout a public speaking task (Behnke & Sawyer, 1999). Individuals high in trait anxiety also experience a unique increase in public speaking anxiety during the release period, immediately following the public speaking task (Witt et al., 2006). Thus, increased trait anxiety has been demonstrated to increase individual susceptibility to public speaking anxiety, as well as impact the pattern of arousal throughout the public speaking task in both men and women.

Anxiety and gender. Research has identified consistent gender differences in anxiety prevalence, at a 2:1 girl:boy ratio (Costello et al., 2005). For instance, in a sample of undergraduate, university students, females experienced significantly higher levels of both trait and state anxiety over the course of a public speaking task (Behnke & Sawyer, 2000). Gender differences also exist within the diagnosis of social anxiety disorder,

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whereby females report more social fears and have higher comorbidity rates with anxiety disorders when compared to males (American Psychiatric Association, 2013). Taken together, these results validate the need to consider participant gender when exploring social anxiety, trait anxiety, and public speaking anxiety.

The Present Study

The purpose of the present study was to explore whether anxiety and coping in adulthood might be predicted by emotion socialization in childhood. More specifically, the intention was to better understand the relation between how emotions are socialized in childhood and university students' level of trait anxiety and public speaking anxiety, as well as their ability to adaptively cope. Past research has identified a number of benefits associated with successful emotion socialization in childhood including, but not limited to, higher emotional intelligence (Alegre, 2011), more adaptive physiological regulation (Shih et al., 2017), and improved well-being (Gus et al., 2015).

However, based on the literature review for the current study, the potential links among emotion socialization in childhood and the specific variables of interest (trait anxiety, public speaking anxiety, and adaptive/maladaptive coping) have not been sufficiently studied and thus the current study makes an important contribution to the existing body of literature for a number of reasons. To begin, both public speaking anxiety and social anxiety disorder have a high prevalence rate (Kessler et al., 2005; Pull, 2012); according to Statistics Canada, social phobia is one of the most common anxiety disorders and affects between 8% and 13% of the population (Statistics Canada, 2012), roughly 5% of adolescents (Costello et al., 2005). In a sample of community youth, roughly 70% of individuals diagnosed with social anxiety disorder also experienced

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public speaking anxiety, while an additional 6.5% experienced public speaking anxiety alone, without meeting diagnostic criteria for social anxiety disorder (Knappe et al., 2011). As previously stated, public speaking anxiety evokes a high level of discomfort in those who experience it, manifesting cognitively, physiologically, and behaviourally (Bodie, 2010; Clements & Turpin, 1996; Witt et al., 2006). Yet still, public speaking is often a requirement in university courses and within the workplace, where employees are expected to give presentations or participate in group discussion. Given the prevalence of public speaking anxiety and social anxiety disorder, identifying and finding ways to foster adaptive and efficacious coping strategies is a worthy goal. Furthermore, if results indicate that emotion socialization in childhood is associated with level of anxiety, as well as the available coping strategies, steps can be taken to proactively mitigate this anxiety and increase an individual's repertoire of coping strategies. Although there are a number of ways in which students can decrease anxiety and learn to implement more adaptive coping strategies, isolating any potential risk factors will allow for the identification of those students who would most benefit from support or are in most need of intervention.

The Present Study: Research Questions and Hypotheses

The primary variables of interest that were examined in the current study are emotion socialization in childhood, and trait anxiety, public speaking anxiety, and coping in university students. Participant gender was included as a possible covariate, given that previous research has identified a relation between gender and emotion socialization (e.g., Brown et al., 2015), as well as gender and anxiety (e.g., Costello et al., 2005). Given that mothers have been shown to actively socialize emotions differently in their

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children than fathers, it was expected that the pattern of findings would differ for emotion socialization by mothers and fathers (Fivush et al., 2000). Social desirability was also identified as a possible covariate, as past research has demonstrated a relation between social anxiety/public speaking anxiety and need for approval (e.g., Beatty & Payne, 1983). A university student sample was selected because students enrolled in post-secondary education commonly experience elevated levels of anxiety; in a sample of college students in the United States, anxiety was determined to be the most common concern brought by students to campus counselling centres (Benton, Robertson, Wen-Chih, Newton, & Benton, 2003). Additionally, fear of public speaking encompassed 13% of the specific phobias brought to campus counseling centres (Benton et al., 2003), which may speak to the need in undergraduate education to contribute to class discussion, facilitate seminars, and give both individual and group presentations.

Research Question 1: Does emotion socialization in childhood predict trait anxiety in university students? As previously described, emotion socialization in childhood is related to how an individual regulates emotions later in life (e.g., Gus et al., 2015). Thus, Research Question 1 explored whether emotion socialization in childhood would predict lower levels of trait anxiety, defined as a stable element of one's personality, consistent across situations and time (McCroskey et al., 1976).

Hypothesis 1. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict lower levels of trait anxiety.

Research Question 2: Does emotion socialization in childhood predict public speaking anxiety in university students? As previous research has shown that emotion

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socialization in childhood is related to later ability to regulate and cope with emotion (e.g., Gus et al., 2015), Research Question 2 explored this further by examining how participants experience the commonly anxiety provoking social task of speaking in public. More specifically, this research question explored the relation between emotion socialization and three aspects of self-reported public speaking anxiety (cognitive, physiological, and behavioural).

Hypothesis 2a: Cognitive public speaking anxiety. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict lower levels of self-reported cognitive public speaking anxiety.

Hypothesis 2b: Physiological public speaking anxiety. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict lower levels of self-reported physiological public speaking anxiety.

Hypothesis 2c: Behavioural public speaking anxiety. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict lower levels of self-reported behavioural manifestations of public speaking anxiety.

Hypothesis 2d: Total public speaking anxiety. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching)

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would predict lower levels of total self-reported public speaking anxiety (comprised of cognitive, physiological, and behavioural components).

Research Question 3: Does emotion socialization in childhood predict coping in university students? As previously described, emotion socialization in childhood is related to overall well-being (e.g., Gus et al., 2015). The purpose of Research Question 3 was to examine whether emotion socialization would predict an individual's ability to employ effective and adaptive coping strategies.

Hypothesis 3a: Adaptive. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict more use of adaptive coping strategies.

Hypothesis 3b: Maladaptive. It was hypothesized that after controlling for potential covariates, more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotion acceptance, awareness, and coaching) would predict less use of maladaptive coping strategies.

CHAPTER 2

METHOD

The current study consisted of self-report questionnaires, completed online by university students. Participant recruitment was conducted through the university participant pool. The study design is cross-sectional, with participants completing all measures at one point in time.

Participants

At least 90 participants were required based on the proposed analytic plan, which was determined using G*Power 2. However, the target was 120 participants, anticipating the possibility of attrition, outliers, and incomplete measures. Participant recruitment continued beyond the target number in an attempt to increase statistical power and allow for more sophisticated statistical analyses. The final sample consisted of 204 undergraduate students (39 men, 164 women, 1 “other”) recruited through the participant pool at the University of Windsor. Participants received one credit through the participant pool as compensation for one hour of online participation.

Demographic information is presented in Table 1. Participants ranged in age from 18 to 44 years old ($M = 21.07$, $SD = 3.41$). Most participants identified as Caucasian and spoke English as a first language. The remaining participants identified their first language as one of the following: Portuguese, Arabic, Romanian, Serbian, Tulu, Urdu, Bisaya, Croatian, Hungarian, French, German, Spanish, Chinese, and Sindhi. All participants reported having English fluency, operationally defined as the ability to speak, write, and comprehend the English language. Additionally, 98 participants (48%) reported avoidance behaviour in the past, indicating that they had, at least once, not taken

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Table 1

Summary of Demographic Characteristics of Sample (N = 204)

Variable	<i>n</i> (Percent of Total)
Gender	
Male	39 (19)
Female	164 (80.5)
Other	1 (.5)
Ethnicity	
Caucasian	143 (69)
Arab	20 (10)
Mixed/Biracial	10 (5)
Other	10 (5)
South Asian	8 (4)
Caribbean	4 (2)
Latin American	4 (2)
Chinese	2 (1)
Filipino	2 (1)
African	1 (.5)
Southeast Asian	1 (.5)

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a class or participated in an event because it involved a performance or presentation component. Lastly, 119 participants (58%) reported having had at least a moderate amount of experience performing in front of an audience.

Measures

See Table 2 for a list of the measures used and Appendix A for measure permissions.

Demographic Questionnaire. Data were collected on relevant demographic variables including participant gender, language proficiency, participant ethnicity, and previous performance and public speaking experience (see Appendix B). As previously mentioned, females have been found to experience higher levels of social anxiety disorder and public speaking anxiety than males (American Psychiatric Association, 2013; Behnke & Sawyer, 2000; Nathanson & Saywitz, 2015). English proficiency was recorded; although English as a first language was not required to participate, proficiency was of particular interest as research has indicated that communicating in a language the speaker is not proficient in may increase anxiety and decrease willingness to communicate (Liu & Jackson, 2008; Wu & Lin, 2014). Additionally, participants' ethnicity was recorded. Lastly, previous experience in a performance capacity was recorded (Steptoe & Fiddler, 1987); for instance, if participants had acting experience or had taken a course in public speaking, either through the university or an organization such as Toastmasters.

The History of Parenting Emotion Socialization Scale (HOPES-MV/HOPES-FV). Each participant completed the History of Parenting Emotion Socialization Scale in order to measure emotion socialization in childhood (HOPES; Hakim-Larson & Scott,

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Table 2

Study Measures

Name of Measure	Construct	Approximate Task Duration	Variables	Hypotheses
Demographic Questionnaire	N/A	• 10 minutes	<ul style="list-style-type: none"> • Gender • Ethnicity • English Proficiency • Past Experience 	Potential covariates
The History of Parenting Emotion Socialization Scale (HOPES-MV/HOPES-FV)	Emotion Socialization in Childhood	• 12 minutes	<ul style="list-style-type: none"> • Total HOPES-MV • Total HOPES-FV 	1, 2 and 3
The State-Trait Anxiety Inventory (STAI)	Trait Anxiety	• 5 minutes	<ul style="list-style-type: none"> • Trait Anxiety 	1
The Brief Coping Orientation to Problems Experienced (COPE)	Coping	• 5 minutes	<ul style="list-style-type: none"> • Adaptive • Maladaptive 	3a and 3b
Marlowe-Crowne Social Desirability Scale – Short Form	Social Desirability	• 3 minutes	<ul style="list-style-type: none"> • N/A 	Potential covariate
The Public Speaking Anxiety Scale (PSAS)	Public Speaking Anxiety	• 5 minutes	<ul style="list-style-type: none"> • Cognitive • Physiological • Behavioural 	2a, 2b, and 2c

Note. Total time to complete study measures was no more than 60 minutes.

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2013). This measure requires participants to reflect retrospectively on their childhood. The scale involves two separate measures; a mother and father version (HOPES-MV/HOPES-FV). Participants respond on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*) to 36 items per measure, including, “My father could empathize with my feelings of anxiety and fear” and “When I was anxious or afraid, mom showed me how to relax and conquer my fears”. Based on the theoretical framework of parental meta-emotion (Gottman, 1997), the HOPES measures three specific dimensions of emotion socialization: 1) **awareness**, parental emotion awareness vs. lack of insight, 2) **acceptance**, parental acceptance vs. rejection of emotions, and 3) **emotion coaching**, parental emotion coaching vs. uncertainty, represented by 9, 14, and 13 questions respectively. A total score is derived, with higher scores indicating more successful emotion-related parenting; higher awareness, acceptance, and emotion coaching. The measure has demonstrated sound internal consistency (Johnson, 2014). More specifically, Cronbach’s alphas for awareness of emotions, acceptance of emotions, and emotion coaching for the HOPES-MV were .89, .91, and .85, respectively (Johnson, 2014). For the HOPES-FV, awareness of emotions, acceptance of emotions, and emotion coaching, Cronbach’s alphas were .91, .92, and .87, respectively (Johnson, 2014). Analysis of the current sample demonstrated excellent reliability for both the HOPES-MV and HOPES-FV, with a Cronbach’s alpha coefficient of .96 for each total score. More specifically, Cronbach’s alphas for awareness of emotion, acceptance of emotion, and emotion coaching for the HOPES-MV were .87, .94, and .88, respectively. For the HOPES-FV awareness of emotions, acceptance, and emotion coaching, Cronbach’s alphas were .89, .93, and .87, respectively.

The Brief Coping Orientation to Problems Experienced (COPE). The Brief COPE Inventory (Carver, 1997) was completed by participants in order to get a sense of how they had been coping with recent stressors in their lives. All 28 items are responded to on a 4-point, Likert-type scale (0 = *I haven't been doing this at all*, 3 = *I've been doing this a lot*) and include, "I've been getting emotional support from others" and "I've been criticizing myself." Higher scores on each item indicate more use of that particular strategy. Multiple indicators have determined the internal structure of the Brief COPE Inventory to be psychometrically sound (Carver, 1997). More recent use of the Brief COPE has also demonstrated good internal consistency, with Cronbach's alpha coefficients ranging from .81 to .88 (Mahmoud, Staten, Hall, & Lennie, 2012). Analysis of the current sample demonstrated adequate reliability, with a Cronbach's alpha coefficient of .78.

Factor analysis of the Brief COPE. The Brief COPE provides an indication of how participants have been coping with recent stressors in their lives. Scoring of the Brief COPE provides 14 unique coping strategies, comprised of two items each. Given that each composite coping strategy was comprised of only two items, individual coping strategies were only explored in preliminary correlational analyses (Table 3). However, composite variables comprised of a larger number of items were determined to be ideal for the main analyses. Notably, higher-order factors were created from the current data set, as per the author's recommendation (Carver, 2007). An exploratory factor analysis (EFA) with an oblique, oblimin rotation was conducted on the 14 subscale scores (as opposed to the 28 individual items) in order to group the specific coping strategies into meaningful composite variables. The KMO value was .72, above the acceptable limit of

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Table 3

Correlation Matrix for HOPES and Brief COPE Coping Strategies

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. H-MV	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. H-FV	.42**	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. SD	-.01	-.05	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
4. AC	.30**	.20**	.03	1.0	-	-	-	-	-	-	-	-	-	-	-	-
5. D	-.20**	-.06	.14	.01	1.0	-	-	-	-	-	-	-	-	-	-	-
6. SU	-.21**	-.23**	-.05	-.18*	.30**	1.0	-	-	-	-	-	-	-	-	-	-
7. ES	.23**	.10	.19**	.38**	.02	-.11	1.0	-	-	-	-	-	-	-	-	-
8. IS	.25**	.10	.11	.37**	-.07	-.08	.73**	1.0	-	-	-	-	-	-	-	-
9. BD	-.34**	-.29**	.12	-.33**	.41**	.31**	-.15*	-.09	1.0	-	-	-	-	-	-	-
10. V	-.11	-.16*	.23**	.08	.20**	.27**	.25**	.30**	.20**	1.0	-	-	-	-	-	-
11. PR	.10	.10	.08	.42**	.00	-.07	.29**	.28**	-.12	.16*	1.0	-	-	-	-	-
12. P	.18**	.07	.24**	.46**	.01	-.09	.38**	.39**	-.12	.24**	.46**	1.0	-	-	-	-
13. H	-.06	-.06	.19**	-.07	.14*	.14	-.01	.02	.12	.26**	.15*	.14	1.0	-	-	-
14. A	.13	.03	.19**	.23**	-.11	-.02	.24**	.24**	-.11	.20**	.33**	.43**	.19**	1.0	-	-
15. R	.14	.13	-.04	.20**	.19**	-.03	.21**	.20**	.01	.11	.14*	.14	-.12	.06	1.0	-
16. SB	-.24**	-.16*	.27**	-.14*	.26**	.15*	-.11	-.04	.33**	.23**	-.04	.07	.29**	-.09	.04	1.0

Note. H-MV = The History of Parenting Emotion Socialization Scale - Mother Version, H-FV = The History of Parenting Emotion Socialization Scale - Father Version, SD = self-distraction, AC = active coping, D = denial, SU = substance use, ES = use of emotional support, IS = use of instrumental support, BD = behavioural disengagement, V = venting, PR = positive reframing, P = planning, H = humour, A = acceptance, R = religion, SB = self-blame.

** Significant at the .01 level

* Significant at the .05 level

.5 (Field, 2013), indicating suitability of the data for a factor analysis. Barlett's Test of Sphericity was significant, indicating correlation of variables at the population level. As reviewed in the introduction and for the purposes of the current study, coping strategies have been conceptualized as falling into two broad categories of adaptive and maladaptive. As such, the factor analysis was set to extract two factors and a two-factor model of the Brief COPE was provided (see Table 4). A threshold of $\geq |.32|$ was used to determine whether a subscale sufficiently loaded onto a factor (Stevens, 2009). The first factor was labelled *adaptive coping* and was comprised of the following subscales: active coping, use of emotional support, use of instrumental support, positive reframing, planning, and acceptance. The second factor was labelled *maladaptive coping* and was comprised of the following subscales: self-distraction, denial, substance use, behavioural disengagement, venting, humor, and self-blame. Notably, one subscale (religion) did not significantly load on to either factor and as such, was not included in the analyses. Composite variables were created for both factors, with higher scores indicating more use of either adaptive or maladaptive coping strategies. These composite variables were used as dependent variables in linear regressions to examine Hypothesis 3. Cronbach's alpha coefficients for the adaptive and maladaptive composites were .78 and .65, respectively.

The State-Trait Anxiety Inventory (STAI). The State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg & Jacobs, 1983) was used to measure anxiety. The original questionnaire includes 20 items intended to measure state anxiety and 20 items to measure trait anxiety. Only those questions pertaining to trait anxiety were administered in the current study, given that state anxiety at time of questionnaire

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Table 4

Summary of Exploratory Factor Analysis of the Brief COPE

	Component	
	Adaptive	Maladaptive
Self-Distraction		.40
Active Coping	.66	
Denial		.62
Substance Use		.53
Emotional Support	.74	
Instrumental Support	.73	
Behavioural Disengagement		.67
Venting	.40	.58
Positive Reframing	.64	
Planning	.75	
Humour		.50
Acceptance	.56	
Religion		
Self-Blame		.65
Eigenvalues	3.24	2.36
% of Variance	23.11	16.89

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completion was not relevant; sections of the STAI can be administered individually (Spielberger, 2015). All questions are responded to on a 4-point Likert-type scale (1 = *not at all*, 4 = *very much so*). Items include, “I worry too much over something that really doesn’t matter” and “I lack self-confidence.” A total score is derived through a sum of items, with higher scores indicating higher levels of trait anxiety. The measure has sound internal consistency, with Cronbach’s alpha coefficients ranging from .86 to .95 (Spielberger et al., 1983). Analysis of the current sample demonstrated excellent reliability, with a Cronbach’s alpha coefficient of .92.

The Public Speaking Anxiety Scale (PSAS). Participants completed the Public Speaking Anxiety Scale (PSAS; Bartholomay & Houlihan, 2016) in order to measure cognitive, physiological, and behavioural responses to public speaking anxiety. The scale includes 17 items, responded to on a 5-point, Likert-type scale (1 = *not at all*, 5 = *extremely*). Items include, “I am focused on what I am saying during my speech” (cognitive), “I feel sick before speaking in front of a group” (physiological), and “I fidget before speaking” (behavioural). The measure has demonstrated sound internal consistency, with Cronbach’s alpha values of .88, .87, and .75, for the cognitive, physiological, and behavioural subscales, respectively (Bartholomay & Houlihan, 2016). The total, combined public speaking anxiety score has also demonstrated excellent internal consistency, with a Cronbach’s alpha of .94 (Bartholomay & Houlihan, 2016). Analysis of the current sample demonstrated excellent reliability, with a Cronbach’s alpha coefficient of .95 for the total score. Cronbach’s alphas for the cognitive, physiological, and behavioural subscales were .90, .79, and .90, respectively.

The Marlowe-Crowne Social Desirability Scale – Short Form. The Marlowe-Crowne Social Desirability Scale – Short Form (Reynolds, 1982) was administered in order to measure participant social desirability. The scale includes 13 items, responded to dichotomously by indicating *true* or *false*. Items include, “There have been times when I was quite jealous of the good fortune of others” and “I am sometimes irritated by people who ask favors of me”. The measure has demonstrated sound internal consistency, with Cronbach’s alpha coefficients ranging from .62 to .76 (Andrews & Meyer, 2003). Analysis of the current sample demonstrated unacceptable reliability, with a Cronbach’s alpha coefficient of .27. Because this measure has a true-false format, a Kuder-Richardson Formula 20 analysis (Kuder & Richardson, 1937) was also conducted, but the reliability coefficients remained unchanged and unacceptable (KR20 = .27). In addition, item-total correlations were examined and were also unreliable (below .30). As such, this measure was not used in any further analyses.

Procedure

After receiving institutional REB approval, participants provided informed consent (Appendix C) and completed all questionnaires online using Qualtrics. All participants completed the demographic questionnaire first; however, the five remaining questionnaires were counterbalanced. Participants were debriefed upon completion and provided with the primary researcher’s contact information in the event that there were any questions or concerns.

CHAPTER 3

RESULTS

Overview of Results

In order to test whether emotion socialization in childhood predicted trait anxiety, public speaking anxiety, and coping, five hierarchical multiple regressions and two linear regressions were conducted. All statistical analyses were completed using Statistical Package for the Social Science (SPSS) software version 24.

Preliminary Analyses

Missing data. All variables had less than 3% missing data. A missing values analysis was conducted; Little's Missing Completely at Random (MCAR) test was not significant, indicating that data were missing completely at random ($\chi^2 (18) = 21.12, p = .27$). Pairwise deletion was used for all hierarchical multiple and linear regressions. Listwise deletion was used for the mediation analyses, given that this is the only option when using Process Macro (Hayes, 2017).

Assumptions. All statistical assumptions of multiple regression analysis were assessed including normality, univariate and multivariate outliers, independence of errors, homoscedasticity, and multicollinearity (Cohen, Cohen, West, & Aiken, 2003; Tabachnick & Fidell, 2016). Normality was assessed using a visual inspection of the histograms, Shapiro-Wilk test, and skewness and kurtosis values. A visual inspection of histograms suggested violations of normality for HOPES-MV, physiological public speaking anxiety, and behavioural public speaking anxiety. Shapiro-Wilk tests were significant for HOPES-MV, HOPES-FV, as well as for cognitive, physiological, behavioural, and total public speaking anxiety. However, the Shapiro-Wilk test is known

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to be sensitive to small deviations from normality (Field, 2013). No skew values exceeded ± 2 and no kurtosis values exceeded ± 3 (Tabachnick & Fidell, 2016) and thus, skew and kurtosis were determined to be within normal limits. Univariate outliers were examined using z -scores and multivariate outliers were assessed using standardized residuals and Mahalanobis distance. The only variable with univariate outliers was the HOPES-FV, identified using a predetermined cut-off of ± 3.29 (Tabachnick & Fidell, 2016); one outlier was winsorized. One multivariate outlier was identified, using a predetermined cut-off of $+16.27$ (Field, 2013); this outlier was removed from the data set. Cook's distance values were all below the predetermined cut-off value of 1.00 (Cook & Weisberg, 1982), suggesting no influential cases. Durbin-Watson values were all within normal limits (between 1 and 3; Field, 2013), indicating independence of errors. A visual inspection of the residual scatterplot suggested that data met the assumption of homoscedasticity. Multicollinearity and singularity were assessed using Tolerance and Variance Inflation Factors (VIF) scores, with predetermined cut-offs of less than .01 and greater than 10 representing concerns (Field, 2013); all values fell within these limits, suggesting no multicollinearity or singularity.

Correlational analyses. A correlational analysis was conducted among all of the main variables of interest (see Table 5). There was a significant, negative correlation between trait anxiety and emotion socialization by both mothers and fathers in childhood. There was also a significant, positive correlation between trait anxiety and total public speaking anxiety. Additionally, there were a number of significant correlations between emotion socialization in childhood and specific coping strategies (see Table 3). Specifically, emotion socialization in childhood by mothers was significantly positively

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Table 5

Correlation Matrix for Variables of Interest

	1	2	3	4	5	6	7	8	9	10
1. HOPES-MV	1.0	-	-	-	-	-	-	-	-	-
2. HOPES-FV	.42**	1.0	-	-	-	-	-	-	-	-
3. Trait Anxiety	-.46**	-.40**	1.0	-	-	-	-	-	-	-
4. Adaptive Coping	.29**	.14*	-.23**	1.0	-	-	-	-	-	-
5. Maladaptive Coping	-.29**	-.25**	.59**	.03	1.0	-	-	-	-	-
6. Total PSA	-.07	-.10	.44**	-.07	.23**	1.0	-	-	-	-
7. Cognitive PSA	-.06	-.13	.42**	-.08	.22**	.95**	1.0	-	-	-
8. Physiological PSA	-.04	-.06	.39**	-.02	.22**	.93**	.80**	1.0	-	-
9. Behavioural PSA	-.09	-.07	.43**	-.08	.21**	.93**	.80**	.87**	1.0	-
10. Gender	-.05	.08	.15**	.04	-.05	.32**	.31**	.30**	.30**	1.0

Note. HOPES-MV = The History of Parenting Emotion Socialization Scale – Mother Version, HOPES-FV = The History of Parenting Emotion Socialization – Father Version, PSA = public speaking anxiety.

** . Significant at the .01 level

* . Significant at the .05 level

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correlated with active coping, emotional support, instrumental support, and planning.

However, emotion socialization in childhood by mothers was significantly negatively correlated with denial, substance use, behavioural disengagement, and self-blame.

Emotion socialization in childhood by fathers was significantly positively correlated with active coping, but significantly negatively correlated with substance use, behavioural disengagement, venting, and self-blame.

HOPES-MV/HOPES FV. Intercorrelations for subscales of the HOPES-MV ranged from .82 to .88, whereas intercorrelations for the HOPES-FV ranged from .78 to .83. All intercorrelations were significant beyond the .001 level and thus, subscales were summed to create two total continuous scores for both the mother and father version, representing parents who are relatively high in all positive features of emotion socialization (acceptance, awareness, and coaching). On average, participants reported higher scores for perceived emotion socialization by mothers in childhood ($M = 128.59$, $SE = 1.91$) when compared to perceived emotion socialization by fathers ($M = 116.35$, $SE = 1.84$). This difference, $M = 12.24$, 95% CI [8.31, 16.16], was significant, $t(199) = 6.14$, $p < .001$, and represented a medium effect size, $r = .40$.

Covariates. Previous literature suggests an association between gender and anxiety (e.g., American Psychiatric Association, 2013; Nathanson & Saywitz, 2015). Participant gender was significantly correlated with and included as a covariate in the analysis of the following variables: trait anxiety, cognitive public speaking anxiety, physiological public speaking anxiety, behavioural public speaking anxiety, and total public speaking anxiety (see Table 5). Parent gender has also been identified in the literature as being related to the socialization of emotion (e.g., Brown et al., 2015) and

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was controlled for by having separate retrospective reports of emotion socialization in childhood by mother and father (HOPES-MV/HOPES-FV). As previously mentioned, although social desirability was initially identified as a potential covariate, it was not included in any analyses given unacceptable reliability in the current sample.

Main Analyses

Hypothesis 1: Emotion socialization predicts trait anxiety. A hierarchical multiple regression analysis was conducted in order to determine if emotion socialization by mothers and fathers in childhood significantly predicted trait anxiety (see Table 6). Gender was entered in the first step of the model and accounted for a significant proportion of variance ($\beta = .15, p = .01$). Emotion socialization in childhood by mothers and by fathers were entered in the second step of the model and accounted for a significant amount of variance above and beyond that accounted for by gender. Variables in the regression model accounted for 28.7% of the variance ($F(3, 195) = 26.19, p < .001$). Both emotion socialization by mothers ($\beta = -.34, p < .001$) and emotion socialization by fathers ($\beta = -.25, p < .001$) were significant predictors of trait anxiety.

Hypothesis 2: Emotion socialization predicts public speaking anxiety. Hierarchical multiple regression analyses were conducted in order to determine if emotion socialization by mothers and fathers in childhood significantly predicted public speaking anxiety. As earlier described, cognitive, physiological, and behavioural components of public speaking anxiety were explored in the present study, in addition to a total public speaking anxiety score.

Hypothesis 2a: Cognitive public speaking anxiety. A hierarchical multiple regression analysis was conducted in order to determine if successful emotion

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Table 6

Summary of Hierarchical Regression Analyses for Hypothesis 1: Trait Anxiety

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					26.19**	.29
Step 1						
Gender	4.03	1.63	.15	.02*		
Step 2						
HOPES-FV	-.11	.03	-.25	.06**		
HOPES-MV	-.14	.03	-.34	.12**		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

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socialization by mothers and fathers in childhood (i.e., higher emotional acceptance, awareness, and coaching) significantly predicted lower levels of self-reported cognitive public speaking anxiety (see Table 7). Gender was entered in the first step of the model and accounted for a significant proportion of variance ($\beta = .31, p < .001$). Emotion socialization in childhood by mothers and by fathers were entered in the second step of the model and emotion socialization by fathers accounted for a significant amount of variance above and beyond that accounted for by gender. Variables in the regression model accounted for 11.7% of the variance ($F(3, 195) = 8.61, p < .001$). Emotion socialization by mothers ($\beta = .04, p = .61$) was not a significant predictor of cognitive public speaking anxiety, however, emotion socialization by fathers was a significant predictor ($\beta = -.18, p = .02$).

Hypothesis 2b: Physiological public speaking anxiety. A hierarchical multiple regression analysis was conducted in order to determine if successful emotion socialization by mothers and fathers in childhood (i.e., higher emotional acceptance, awareness, and coaching) significantly predicted lower levels of self-reported physiological public speaking anxiety (see Table 8). Gender was entered in the first step of the model and accounted for a significant proportion of variance ($\beta = .30, p < .001$). Emotion socialization in childhood by mothers and by fathers were entered in the second step of the model and did not account for a significant amount of variance above and beyond that accounted for by gender. Variables in the regression model accounted for 9.7% of the variance ($F(3, 195) = 6.99, p < .001$). Neither emotion socialization by mothers ($\beta = .02, p = .80$) or emotion socialization by fathers ($\beta = -.10, p = .19$) were a significant predictor of physiological public speaking anxiety.

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Table 7

Summary of Hierarchical Regression Analyses for Hypothesis 2a: Cognitive PSA

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					8.61**	.12
Step 1						
Gender	5.97	1.30	.31	.10**		
Step 2						
HOPES-FV	-.05	.02	-.18	.03*		
HOPES-MV	.01	.02	.04	.00		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

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Table 8

Summary of Hierarchical Regression Analyses for Hypothesis 2b: Physiological PSA

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					6.99**	.10
Step 1						
Gender	3.98	.90	.30	.10**		
Step 2						
HOPES-FV	-.02	.02	-.10	.01		
HOPES-MV	.00	.02	.02	.00		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

Hypothesis 2c: Behavioural public speaking anxiety. A hierarchical multiple regression analysis was conducted in order to determine if successful emotion socialization by mothers and fathers in childhood (i.e., higher emotional acceptance, awareness, and coaching) significantly predicted fewer self-reported behavioural manifestations of public speaking anxiety (see Table 9). Gender was entered in the first step of the model and accounted for a significant proportion of variance ($\beta = .29, p < .001$). Emotion socialization in childhood by mothers and by fathers were entered in the second step of the model and did not account for a significant amount of variance above and beyond that accounted for by gender. Variables in the regression model accounted for 9.7% of the variance ($F(3, 195) = 6.97, p < .001$). Neither emotion socialization by mothers ($\beta = -.02, p = .83$) or emotion socialization by fathers ($\beta = -.11, p = .15$) were a significant predictor of behavioural public speaking anxiety.

Hypothesis 2d: Total public speaking anxiety. A hierarchical multiple regression analysis was conducted in order to determine if successful emotion socialization by mothers and fathers in childhood (i.e., higher emotional acceptance, awareness, and coaching) significantly predicted lower levels of total public speaking anxiety (comprised of cognitive, physiological, and behavioural subscales; see Table 10). Gender was entered in the first step of the model and accounted for a significant proportion of variance ($\beta = .32, p < .001$). Emotion socialization in childhood by mothers and by fathers were entered in the second step of the model and did not account for a significant amount of variance above and beyond that accounted for by gender. Variables in the regression model accounted for 11.9% of the variance ($F(3, 195) = 8.80, p < .001$). Neither emotion

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Table 9

Summary of Hierarchical Regression Analyses for Hypothesis 2c: Behavioural PSA

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					6.97**	.10
Step 1						
Gender	3.09	.73	.29	.08**		
Step 2						
HOPES-FV	-.02	.01	-.11	.01		
HOPES-MV	.00	.01	-.02	.00		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

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Table 10

Summary of Hierarchical Regression Analyses for Hypothesis 2d: Total PSA

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					8.80**	.12
Step 1						
Gender	13.04	2.72	.32	.11**		
Step 2						
HOPES-FV	-.09	.05	-.15	.02		
HOPES-MV	-.01	.05	.02	.00		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

socialization by mothers ($\beta = .02$, $p = .79$) or emotion socialization by fathers ($\beta = -.15$, $p = .05$) were a significant predictor of total public speaking anxiety.

Hypothesis 3: Emotion socialization predicts coping. It was hypothesized that more successful emotion socialization in childhood would be associated with the use of more adaptive, as opposed to maladaptive, coping strategies. Two standard multiple regressions were conducted to examine whether emotion socialization in childhood predicted coping in adulthood. Because gender was not significantly correlated with either adaptive or maladaptive coping, it was not examined as a covariate in the regression models.

Hypothesis 3a: Adaptive. A linear regression analysis was conducted in order to determine if successful emotion socialization in childhood significantly predicted the use of adaptive coping strategies (see Table 11). Variables in the regression model accounted for 4.1% of the variance ($F(2, 196) = 4.15$, $p < .001$). Emotion socialization by mothers ($\beta = .17$, $p = .03$) significantly predicted the use of adaptive coping strategies, however, emotion socialization by fathers did not ($\beta = .06$, $p = .47$).

Hypothesis 3b: Maladaptive. A linear regression analysis was conducted in order to determine if successful emotion socialization in childhood significantly predicted the use of maladaptive coping strategies (see Table 12). Variables in the regression model accounted for 9.4% of the variance ($F(2, 196) = 10.20$, $p < .001$). Both emotion socialization by mothers ($\beta = -.16$, $p = .03$) and emotion socialization by fathers ($\beta = -.19$, $p = .01$) were significant predictors of maladaptive coping.

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Table 11

Summary of Regression Analyses for Hypothesis 3a: Adaptive Coping

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					4.15**	.04
HOPES-FV	.01	.02	.06	.00		
HOPES-MV	.04	.02	.17	.03*		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

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Table 12

Summary of Regression Analyses for Hypothesis 3b: Maladaptive Coping

Variables	<i>B</i>	<i>SE B</i>	β	<i>sr</i> ²	F	Adjusted R ²
					10.20**	.09
HOPES-FV	-.05	.02	-.19	.04*		
HOPES-MV	-.04	.02	-.16	.03*		

Note: *B* = unstandardized regression coefficient, *SE B* = standard error of regression coefficient, β = standardized regression coefficient; * $p < .05$, ** $p < .01$

Mediation Analyses

In order to further investigate the relation between emotion socialization in childhood and public speaking anxiety, mediation analyses were conducted. These additional analyses were prompted by the results of the main analyses. More specifically, given that emotion socialization of both mothers and fathers in childhood significantly predicted trait anxiety, but not public speaking anxiety (see Table 6) and given that trait anxiety was highly correlated with public speaking anxiety (see Table 5), it was hypothesized that there would be a significant indirect effect of emotion socialization on public speaking anxiety through trait anxiety. In the analyses a total public speaking anxiety score was used, as was used in Hypothesis 3d. Using Process Macro (Hayes, 2017), two partial mediation analyses were conducted in order to explore the emotion socialization of both mothers and fathers in childhood, using a bootstrapped indirect effect with bias-corrected confidence intervals using 5000 samples (Preacher & Hayes, 2004). For those mediation models with a significant direct effect, trait anxiety will be considered a mediator.

Alternatively, for those mediation models without a significant direct effect, trait anxiety will not be considered a mediator, given that conducting mediation models without a significant direct effect between the predictor and outcome variable is a point of ongoing debate within the literature.¹

HOPES-MV. There was a significant negative relation between emotion socialization by mothers in childhood and trait anxiety ($\beta = -.46, p < .001, 95\% \text{ CI } [-.58, -.34]$; see Figure

¹ Baron and Kenny (1986) do not consider it appropriate to conduct a mediation if the direct effect between the predictor and outcome variable is not significant. In contrast, more recent literature suggests otherwise; that mediation can be conducted without a significant direct effect (e.g., Preacher and Hayes, 2004). Thus, in an attempt to err on the side of caution, results will be explored only as indirect effects for any mediation without a significant direct effect.

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1) and a significant positive relation between trait anxiety and public speaking anxiety ($\beta = .48, p < .001, 95\% \text{ CI } [.34, .61]$). There was also a significant direct effect of emotion socialization by mothers in childhood on public speaking anxiety ($\beta = .17, p = .01, 95\% \text{ CI } [.04, .31]$) and a significant indirect effect of emotion socialization by mothers in childhood on public speaking anxiety through trait anxiety ($\beta = -.22, 95\% \text{ BCa CI } [-.32, -.14]$).

HOPES-FV. There was a significant negative relation between emotion socialization by fathers in childhood and trait anxiety ($\beta = -.41, p < .001, 95\% \text{ CI } [-.54, -.29]$; see Figure 2) and a significant positive relation between trait anxiety and public speaking anxiety ($\beta = .41, p < .001, 95\% \text{ CI } [.27, .54]$). There was no significant direct effect of emotion socialization by fathers in childhood on public speaking anxiety ($\beta = .03, p = .63, 95\% \text{ CI } [-.10, .17]$). However, there was a significant indirect effect of emotion socialization by fathers in childhood on public speaking anxiety through trait anxiety ($\beta = -.17, 95\% \text{ BCa CI } [-.28, -.08]$).

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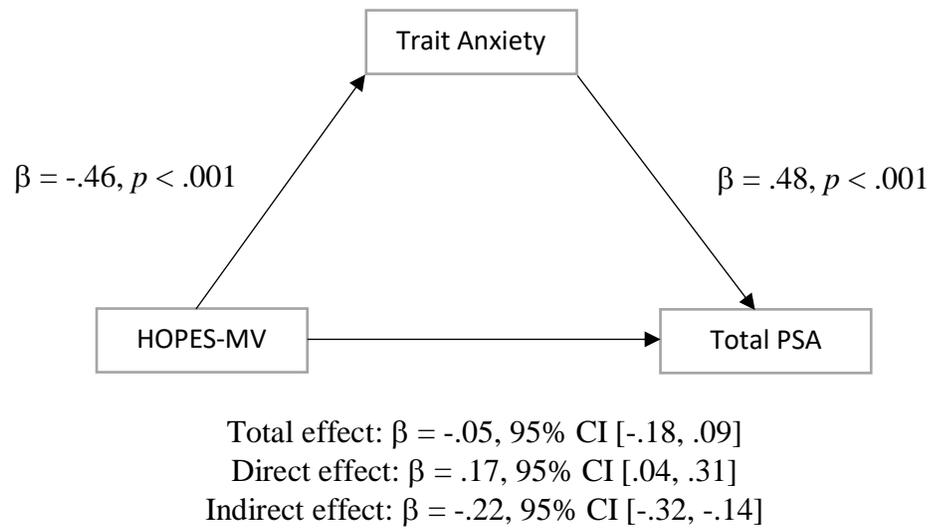


Figure 1. Summary of Mediation Analysis for HOPES-MV

Note. HOPES-MV = The History of Parenting Emotion Socialization Scale – Mother Version, PSA = public speaking anxiety, β = standardized regression coefficient

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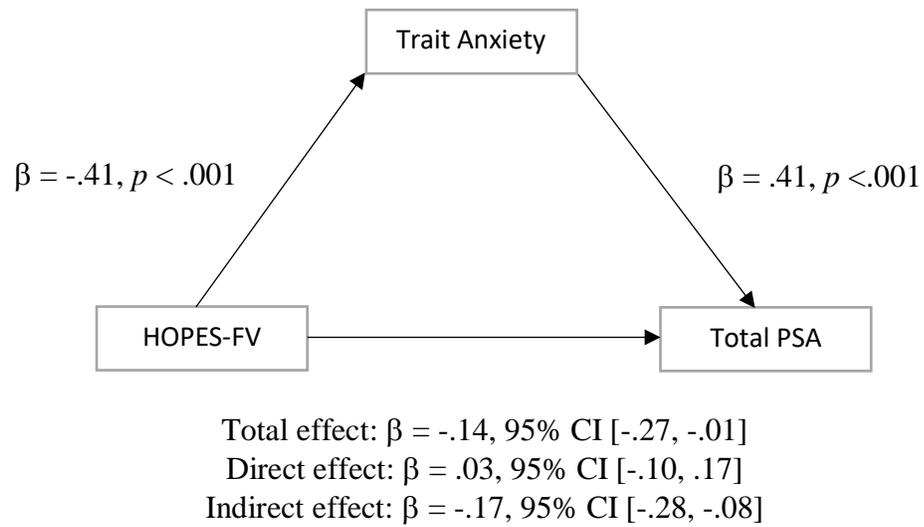


Figure 2. Summary of Mediation Analysis for HOPES-FV

Note. HOPES-FV = The History of Parenting Emotion Socialization Scale – Father Version, PSA = public speaking anxiety, β = standardized regression coefficient

CHAPTER 4

DISCUSSION

The purpose of the current study was to explore the relation between how emotions are socialized in childhood and university students' current level of trait anxiety and public speaking anxiety, as well as their ability to cope. Results of the current study largely supported the relation between emotion socialization in childhood and these aspects of well-being in adulthood. For instance, consistent with a priori hypotheses, more successful emotion socialization in childhood by mothers significantly predicted lower levels of trait anxiety, increased use of adaptive coping strategies, and decreased use of maladaptive coping strategies. Also consistent with a priori hypotheses, more successful emotion socialization in childhood by fathers significantly predicted lower levels of trait anxiety, lower levels of cognitive public speaking anxiety, and decreased use of maladaptive coping strategies. Contrary to expectations, more successful emotion socialization in childhood by fathers did not significantly predict decreased total public speaking anxiety or increased use of adaptive coping strategies. Finally, contrary to expectation, more successful emotion socialization in childhood by mothers did not significantly predict decreased total public speaking anxiety. All findings are discussed in more detail below.

Hypothesis 1: Emotion socialization predicts trait anxiety

As expected, results indicated that more successful emotion socialization by mothers and fathers in childhood (i.e., higher emotional acceptance, awareness, and coaching) predicted lower levels of trait anxiety, after controlling for participant gender; emotion socialization by mothers accounted for more variance than did emotion

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socialization by fathers. This finding is consistent with previous research indicating that less successful emotion socialization in childhood is related to anxiety disorders in childhood and adolescence (e.g., Hurrell et al., 2017), providing further support for the relation between how mothers and fathers socialize emotion in their child and subsequent psychopathology. For instance, aspects of emotion socialization as measured by the HOPES-MV and HOPES-FV (Hakim-Larson & Scott, 2013) involve parental modeling of anxiety reduction strategies (e.g., “When I was anxious or afraid, mom showed me how to relax and conquer my fears”) and creating an open dialogue with which to discuss emotions, including anxiety (e.g., “My father encouraged me to tell him how I feel”). If parents’ can create a positive home environment that fosters emotional intelligence and emotional acceptance, this may serve a protective function, reducing the likelihood of experiencing increased anxiety in childhood. However, this finding in an undergraduate sample is also consistent with research demonstrating that anxiety disorders in childhood are related to anxiety disorders and related psychopathology in adulthood (Costello et al., 2005).

This finding uniquely contributes to the existing literature by exploring trait anxiety. For instance, previous research has explored the relation between emotion socialization and anxiety through operationally defining anxiety categorically, as that which meets criteria for a DSM-V anxiety disorder (e.g., Hurrell et al., 2017). In contrast, the current study broadens this relation by operationally defining anxiety dimensionally, as trait anxiety. Thus, results of the current study suggest that more successful emotion socialization in childhood by mothers and fathers is related to lower levels of trait anxiety in adulthood. In other words, not only is emotion socialization related to anxiety that

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meets diagnostic criteria for a psychological disorder, but emotion socialization is also related to higher levels of trait anxiety manifesting across situations and time.

Hypothesis 2: Emotion socialization predicts public speaking anxiety

Contrary to expectation, more successful emotion socialization by mothers in childhood did not predict levels of cognitive, physiological, behavioural, or total public speaking anxiety. Additionally, although more successful emotion socialization by fathers in childhood did not predict levels of physiological, behavioural, or total public speaking anxiety, it did significantly predict lower levels of cognitive public speaking anxiety.

Based on the literature review conducted for the current study, the relation between emotion socialization in childhood and public speaking anxiety has not yet been explored. However, previous research has demonstrated a negative relation between successful emotion socialization in childhood and anxiety disorders (e.g., Hurrell et al., 2017), as well as a positive relation between trait anxiety and public speaking anxiety (e.g., Behnke & Sawyer, 1999). In addition, emotion socialization in childhood has been related to a number of features that might influence an individual's anxiety response during a public speaking task, such as cognitive biases (Viana et al., 2016) and the ability to physiologically return to baseline (Shih et al., 2017).

An explanation for the largely non-significant results found when examining emotion socialization as a predictor of public speaking anxiety may be construct specificity. The HOPES-MV and HOPES-FV (Hakim-Larson & Scott, 2013) provide a general indication of how emotions are socialized in childhood. The items themselves are broad and are not situation specific (e.g., "When I was anxious or afraid, mom showed

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me how to relax and conquer my fears”). In addition, use of a total score may have resulted in a broader predictor, as opposed to exploring the predictive value of each individual subscale (acceptance, awareness, and coaching). The additional variables explored in the current study (i.e., trait anxiety and coping) are also general and speak to behavioural responses across situations and time. In contrast to these general measures and constructs of emotion socialization, trait anxiety, and coping, public speaking anxiety is quite specific; representing a specifier of a particular anxiety disorder. In other words, it is possible that this discrepancy in specificity may have contributed to the lack of support for emotion socialization as a predictor of public speaking anxiety. A more specific measure of emotion socialization would likely be a more accurate predictor of public speaking anxiety. For instance, a more specific measure might ask participants about how their mothers and fathers accepted their emotions, demonstrated awareness of their emotions, and helped them to work through negative emotions associated with a public performance (e.g. music/dance recital, class presentation, etc.).

Hypothesis 3: Emotion socialization predicts coping

As expected, more successful emotion socialization by mothers in childhood predicted both increased use of adaptive coping strategies, as well as less use of maladaptive coping strategies. However, although more successful emotion socialization by fathers in childhood predicted less use of maladaptive coping strategies, it did not predict increased use of adaptive coping strategies. The discrepancy in findings between mothers and fathers is consistent with previous literature, suggesting that not only do mothers and fathers socialize emotion in children differently. It is noteworthy that other research has found that emotion socialization by mothers may be a stronger predictor of

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childhood outcomes than emotion socialization by fathers (e.g., Brown et al., 2015). In fact, in the current study mothers were rated as engaging in significantly more successful emotion socialization when compared to fathers. Thus, results of the current study demonstrated significant differences in perceived emotion socialization based on parent gender.

These findings contribute to the existing literature by identifying an additional relation of emotion socialization; results suggest that higher total scores that include emotional acceptance, awareness, and coaching by mothers are related to the use of more adaptive and less maladaptive coping strategies in undergraduate students. Additionally, results suggest that higher total scores across emotional acceptance, awareness, and coaching by fathers is related to the use of less maladaptive coping strategies in undergraduate students.

Emotion coaching may be a particularly relevant predictor of future coping behaviours, given that an integral component of parental emotion coaching includes the teaching and modeling of coping strategies. The proposed direction of this relation, with emotion socialization in childhood predicting coping strategies in adulthood, is based on theory; for instance, Social Learning Theory posits that learning occurs through the processes of modeling and observation (Bandura, 1977). From this theoretical perspective, children may learn to use adaptive and to avoid use of maladaptive coping strategies through observing their mother and father model the use adaptive and avoid use of maladaptive coping strategies.

As previously discussed, although dichotomized as adaptive and maladaptive for the purposes of the current study, the adaptiveness of any particular coping strategy is

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incredibly nuanced, requiring consideration of both the individual employing the strategy and the situation in which it is being employed (Lazarus & Folkman, 1987). Although a factor analysis was conducted for the current study in order to statistically group coping strategies into typically adaptive and maladaptive composites, caution should be used when interpreting results given the imperfect nature of coping classification.

Mediation Analyses

Given the results of the main analyses, post hoc mediation analyses were conducted. More specifically, although emotion socialization by mothers and fathers was not a significant predictor of total public speaking anxiety, past research would suggest that emotion socialization behaviours are related to psychopathology and arousal (e.g., Hurrell et al., 2017). It was hypothesized that a discrepancy in construct specificity might explain the lack of significant findings. As expected in the mediation analyses, there was a significant indirect effect between the emotion socialization in childhood by fathers and public speaking anxiety, through trait anxiety. Additionally, trait anxiety was a significant mediator of the relation between emotion socialization in childhood by mothers and public speaking anxiety. The pattern of results in the mediation analyses also demonstrate the possibility of suppression effects, which may indicate a more complex relation between the three variables within the model (Tabachnick & Fidell, 2016). More specifically, suppression is suspected given that the relation between HOPES-MV and public speaking anxiety was actually strengthened through inclusion of trait anxiety. This finding identifies the need for further exploration into the relation between these variables.

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As mentioned previously, construct specificity was identified as a possible explanation for the significant indirect effects. Given that public speaking anxiety is a very specific construct, perhaps emotion socialization in childhood is too broad a predictor. Thus, the relation between emotion socialization in childhood and public speaking anxiety in adulthood is explained in part by a more general predisposition to experience anxiety across situations and time. An area of interest for future research may be to explore whether these indirect effects extend to other performance related situations encompassed by the “Performance Only” specifier in the DSM-V. For instance, might this indirect effect also be significant when exploring the relation between emotion socialization in childhood and anxiety when dancing, singing, or playing sports in front of an audience?

Limitations and Future Directions

There are several limitations of the current study. To begin, all data were collected using self-report. Although commonly used to measure the variables of interest, self-report is inherently flawed and subject to bias responding. However, self-report questionnaires are one of the most frequently used methods to gather data in psychological research and provide a number of advantages, including straightforward administration and the unique ability to explore an individual’s inner thoughts and feelings (Kazdin, 2017). Additionally, although the study was designed to allow for control of social desirability in responding, the measure used did not demonstrate acceptable reliability in the current sample and was not included in any analyses. Unacceptable reliability could be due to the fact that the Marlowe Crowne Social Desirability Scale – Short Form (Reynolds, 1982) is a dated measure and may not be

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appropriate for use with the current sample. A more current measure of social desirability should be included when conducting future research (e.g., The Balanced Inventory of Desirable Responding – Short Form; Hart, Ritchie, Hepper & Gebauer, 2015).

Additionally, it is imperative that future research in emotion socialization continue to consider ethnicity and culture, as previous research has identified the importance of culture in parental emotion socialization practices (e.g., Brown et al., 2015; Bugental & Grusec, 2006). Although the sample in the current study was ethnically diverse, a large majority of participants identified as Caucasian. Thus, demographics did not allow for exploration of or control for ethnicity, without inappropriately grouping distinct ethnic groups into a single category. Although beyond the scope of the current study, researchers should continue to select samples that allow for the exploration of ethnic and cultural differences in emotion socialization and anxiety whenever feasible.

Future research in this area should also explore additional factors that may explain the pattern of results found in the current study. Consistent with a developmental psychopathology perspective, outcomes can be conceptualized as the result of a dynamic interaction between nature, nurture, and developmental level (Beauchaine & Hinshaw, 2017). The variables in the current study take only nurture into account (e.g., emotion socialization), but do not account for the existence of biological predisposition or developmental level of the child during the emotion socialization experience; perhaps the influence of emotion socialization in childhood on anxiety in adulthood could be influenced by an underlying predisposition to experience anxiety. Additionally, perhaps there are specific ages or development levels during which successful emotion socialization is of particular importance or unsuccessful emotion socialization is

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particularly detrimental. For instance, King, Pattwell, Glatt, and Lee (2013) suggest that brain activity during adolescence may increase susceptibility to experience anxiety disorders; thus, it is possible that there are developmentally sensitive periods for the acquisition of various forms of anxiety. In addition to developmental level, there are a number of additional variables that could serve as control variables in future analyses, including previous experience in a performance capacity and year of study. Future research may also consider participant gender as a moderator, as opposed to a control variable and in doing so, look more closely at the interaction of participant gender with parent gender. This is particularly important given that evidence suggests girls are socialized differently than boys (Brown et al., 2015), and mothers socialize emotion differently than fathers (Fivush et al., 2000). As such, the current study can be understood to be one component of a more complex and ongoing body of research.

The correlational nature of all findings in the current study point to the need for additional research. Causal relations between emotion socialization, anxiety, and coping could be explored using longitudinal study design, which would also allow for the identification of developmental periods in childhood that are particularly sensitive to emotion socialization, as described above. For instance, Calkins and Bell (1999) explored the emotion socialization process during toddlerhood and adolescence, two particularly important developmental periods. The authors suggest that although parental response to the child's emotional reaction is essential in both toddlerhood and adolescence, particular responses are required during each period in order to facilitate developmentally relevant tasks (Calkins & Bell, 1999). As previously stated, research on adolescent neurobiology has identified that the process of fear learning is particularly sensitive during this period

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(King et al., 2013). Thus, although research has explored the influence of developmental periods on both emotion socialization and anxiety, longitudinal study design would allow researchers to identify particular emotion socialization strategies employed during particular developmental periods that best facilitate well-being in adulthood.

Finally, continuing to develop the understanding of emotion socialization and how other processes, such as anxiety and coping, may be related, will allow for more targeted and successful intervention and treatment options. Thus, the present study allows for the proactive identification of high-risk students who may be at an increased risk of experiencing elevated levels of anxiety and may not have the resources to adaptively cope. Early identification and intervention will not only prevent or decrease levels of future distress, but is also cost efficient (Beauchaine & Hinshaw, 2017); by investing in the identification of empirically validated protective factors that can guide parenting behaviours, we may reduce personal and societal cost associated with chronic mental health intervention. As such, providing a brief, focused intervention through which parents learn effective emotion socialization skills would be tremendously beneficial. Results of the current study provide evidence to suggest that an intervention of this type, targeting emotion socialization behaviours, may be beneficial. However, future research is needed in order to isolate more specific behaviours and provide both parents and service providers with tangible behavioural modifications.

Summary and Conclusions

The present study makes a number of unique contributions to this area of research. For instance, to the best of my knowledge, the relation between emotion socialization in childhood and public speaking anxiety has not yet been explored in the

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literature. An indirect effect between the emotion socialization in childhood by both mothers and fathers and public speaking anxiety through trait anxiety was demonstrated. The benefits of understanding this relation and others found in the current study are discussed in more detail below.

Additionally, use of the History of Parenting Emotion Socialization Scale – Mother Version/Father Version (HOPES-MV/HOPES-FV; Hakim-Larson & Scott, 2013) provides a unique contribution; it is a relatively new measure and allows for a unique perspective of emotion socialization in childhood, without requiring parents to complete a questionnaire. This is in contrast to previous studies in which emotion socialization in childhood is often measured by either having parents complete self-report measures or through direct observation of parent-child interactions (e.g., Brown et al., 2015; Hurrell et al., 2017; Shih et al., 2017). Unfortunately, these studies often have only one parent involved, typically the mother. This is of particular concern, given research that supports the unique, yet important, contribution made by fathers in the emotion socialization process (Bowie et al., 2013; Brown et al., 2015). Furthermore, significant results found in the current study validate the importance of emotion socialization by fathers in childhood. Thus, the format of the HOPES-MV/HOPES-FV has allowed for data on both mothers and fathers to be reported, without requiring contact with or participation from these parties. It is also advantageous to have individuals report on their own emotion socialization; for instance, how empathetic individuals perceives their father to have been may be more impactful in development than how empathetic their fathers perceived themselves to have been. This perspective is unique and often not considered through use of other measures of emotion socialization.

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Given the amount of research that exists supporting the relation between emotion socialization in childhood and well-being in adulthood, the importance and formational nature of emotion socialization has been consistently validated. The current project contributes to the existing literature by identifying two additional relations of successful emotion socialization, as both trait anxiety and adaptive coping strategies were significantly predicted by the emotion socialization of mothers and fathers in childhood. Additionally, there was a significant indirect effect of emotion socialization and public speaking anxiety through trait anxiety, demonstrating the potential negative ramifications of unsuccessful emotion socialization; for instance, not only might unsuccessful emotion socialization predict a more generally anxious disposition in adulthood, but this might also increase susceptibility to situation-specific anxiety, such as when required to give an oral presentation. Early identification may be particularly important, given that those with anxiety often exhibit avoidance strategies, which may be related to missed opportunities and other comprising behaviours focused on anxiety reduction. For example, perhaps those with public speaking anxiety are more apt to choose a career that does not have a large social or communicative demand. In the current sample alone, nearly half of participants (48%) had demonstrated social related avoidance in the past, providing support for continued research in this area. Additionally, the sample utilized in the current study provides a unique perspective that has been explored less thoroughly in the literature to date. Although a number of studies have identified the relation between emotion socialization in childhood and aspects of well-being in childhood and adolescence, the current study extends research by suggesting that this relation may be maintained into early adulthood.

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In sum, future research in this area will contribute to the development of more focused, efficient, and successful treatment options, increased awareness of the importance of parental emotion socialization, and decreased prevalence rates of social anxiety disorder and public speaking anxiety.

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APPENDICES

Appendix A

Permissions for Study Measures

Measure	Permission Obtained From
History of Parenting Emotion Socialization – Mother Version/Father Version (HOPES-MV/HOPES-FV)	Julie Hakim-Larson, Ph.D., Professor of Child Clinical Psychology, University of Windsor (oral communication; 2017)
The Brief Coping Orientation to Problems Experienced (COPE)	Charles Carver, Ph.D., Distinguished Professor of Psychology, University of Miami (website: http://www.psy.miami.edu/faculty/ccarver/CCscales.html)
State Trait Anxiety Inventory (STAI)	Purchased from Mind Garden (http://www.mindgarden.com/145-state-trait-anxiety-inventory-for-adults)
Marlowe-Crowne Social Desirability Scale	Public domain. Retrieved from: http://cengage.com/resource_uploads/downloads/0495092746_63626.pdf
Public Speaking Anxiety Scale (PSAS)	Emily Bartholomay, Ph.D. student, Southern Illinois University (email communication; 2017)

Appendix B

Demographic Questionnaire

Please respond to the following questions (where applicable):

- 1) Age (in years): _____
- 2) Gender: _____
- 3) First Language: _____
- 4) Comfortability with the English Language: High Medium Low
- 5) Which ethnic category best describes you?
 - _____ Aboriginal (North American Indian, Metis, or Inuit)
 - _____ Arab (e.g., Lebanese, Palestinian, Egyptian, Iraqi, etc.)
 - _____ African
 - _____ Caribbean
 - _____ Caucasian
 - _____ Chinese
 - _____ Filipino
 - _____ Korean
 - _____ Latin American
 - _____ Mixed/Biracial (please specify _____)
 - _____ Other (please specify _____)
 - _____ South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
 - _____ Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.)
- 6) What is your current GPA? _____

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7) Please rate how much experience you have had performing in front of an audience on a scale ranging from *no experience* (1) to *substantial experience* (7).

1 2 3 4 5 6 7

8) Check beside any of the following activities you have done before.

_____ A group presentation

_____ An individual presentation

_____ A public speaking class

_____ A live artistic performance (dance, instrumental or acting)

_____ Other (please indicate) _____

9) Have you ever not participated in a class or an event because it involved a performance or presentation component?

Yes ___

No ___

10) Please mark the category that includes your annual household income.

_____ <\$10,000

_____ \$10,001-\$20,000

_____ \$20,001-\$30,000

_____ \$30,001-\$50,000

_____ \$50,001-\$70,000

_____ \$70,001-\$90,000

_____ \$90,001-\$110,000

_____ >\$110,001

Appendix C

Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Public Speaking Anxiety and Emotion Socialization

You are asked to participate in a research study conducted by Clare Hinch and Dr. Hakim-Larson, from the Psychology department at the University of Windsor. Results will contribute to the completion of the Master's thesis requirement.

If you have any questions or concerns about the research, please feel to contact Dr. Hakim-Larson at 519-253-3000, ext. 2241.

PURPOSE OF THE STUDY

The purpose of this study is to expand the literature and understanding of the influence of personal characteristics on the stress response.

PROCEDURES

If you volunteer to participate in this study, you will be asked to complete four questionnaires intended to measure several personal characteristics. It is anticipated that the entire study will take 60 minutes. The study will be conducted in the Child Study Centre at the University of Windsor and there will be a total of 90 participants. You will be asked to continue your participation in a second Study of the study, but this continued participation is absolutely voluntary.

POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks or harms.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

You may not directly benefit from participating in this study but information gathered may provide benefits to society as a whole which include understanding how personal factors contribute to social response and thus, how to successfully reduce unpleasant responses for the individual.

COMPENSATION FOR PARTICIPATION

EMOTION SOCIALIZATION

You will be compensated with one credit for your participation in this study. If you do not complete the entire study you will still earn these credits.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. To ensure confidentiality, all data will be kept in a locked cabinet and retained for a duration of two years.

PARTICIPATION AND WITHDRAWAL

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future academic status. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE PARTICIPANTS

If you would like to receive a copy of any potential study results, please contact Clare Hinch at hinchc@uwindsor.ca. Results will be available by November 2018.

SUBSEQUENT USE OF DATA

These data may be used in subsequent studies, in publications and in presentations.

RIGHTS OF RESEARCH PARTICIPANTS

If you have questions regarding your rights as a research participant, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF RESEARCH PARTICIPANT/LEGAL REPRESENTATIVE

I understand the information provided for the study, Public Speaking Anxiety and Emotion Socialization, as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

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Name of Participant

Signature of Participant

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

Appendix D

Letter of Information

LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Public Speaking Anxiety and Emotion Socialization

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If you would like to receive a copy of any potential study results, please contact Clare Hinch at hinchc@uwindsor.ca. Results will be available by September 2018.

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SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

VITA AUCTORIS

NAME: Clare D. R. Hinch

PLACE OF BIRTH: Kingston, ON

YEAR OF BIRTH: 1993

EDUCATION: University of Western Ontario, B.A., London, ON, 2016