EXAMINING INTRA- AND INTER-PERSONAL EMOTION REGULATION,

PSYCHOPATHOLOGY, WELL-BEING, AND RELATIONSHIP QUALITY IN EMERGING

ADULTHOOD

SAMANTHA CHAN

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF ARTS

GRADUATE PROGRAM IN CLINICAL DEVELOPMENTAL PSYCHOLOGY

YORK UNIVERSITY

TORONTO, ONTARIO

AUGUST 2019

Abstract

Identifying components of emotion regulation (ER) that contribute to emerging adults' (18-29 years) psychosocial outcomes is crucial to promoting their development. This study aimed to identify emerging adults' intra- and inter-personal ER strategy use and explore the associations between their ER strategy use and difficulties and psychosocial outcomes, including internalizing symptoms (depressive and anxiety symptoms and perceived stress), well-being (subjective happiness and flourishing), and relationship quality. Results showed that emerging adults utilized a range of intra- (e.g., acceptance,) and inter-personal (e.g., enhancing positive affect) ER strategies. The structural equation modelling results indicated that emotion dysregulation was the strongest predictor of emerging adults' psychosocial outcomes. Some ER strategies (e.g., positive reappraisal, enhancing positive affect) were more strongly associated with emerging adults' psychosocial outcomes than other strategies. The findings highlight the links between intra- and inter-personal ER and emerging adults' psychosocial outcomes and can inform mental health intervention programs for emerging adults.

Acknowledgements

First and foremost, I would like to thank my supervisor, Dr. Jennine Rawana for all of her invaluable advice and support with this research. I would also like to thank Dr. Debra Pepler for her encouragement, expertise, and guidance. Further, I sincerely appreciate all of the helpful feedback and insight from Dr. Jessica Sutherland and my committee members, Dr. Maggie Toplak and Dr. Jennifer Kuk. I would also like to acknowledge the endless support and encouragement from my fellow lab members and friends in the program. Finally, I am thankful for my family for always supporting my academic journey and life ventures.

Table of Contents

List of Tables

List of Figures

List of Appendices

Introduction

The influence of emotion regulation (ER) on mental health and relationships is particularly important to study in the context of emerging adulthood (18-29 years; Arnett, 2000). During emerging adulthood, many areas of life are accompanied by new and challenging developmental tasks with disruptive shifts in academic and social contexts (Arnett, 2001; Roisman, Masten, Coatsworth, & Tellegen, 2004). Furthermore, emerging adults in universities are presented with additional challenges (e.g., making new friends in an unfamiliar environment) and are susceptible to high psychopathology symptoms and low well-being (Arnett, 2015; Ontario University and College Health Association, 2017; Srivastava, Tamir, McGonigal, John, & Gross, 2009). Thus, the adaptive management of emotions is crucial for mental health and social functioning (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Eisenberg, Fabes, Guthrie, & Reiser, 2000).

Emotion regulation (ER) is the process through which individuals modulate their expressions and experiences of emotions (Gross & Thompson, 2007). Emotions can be regulated through both intra- and inter-personal process, ranging from reframing a situation on one's own (intrapersonal ER; Gross & John, 2003) to seeking advices from friends and families (interpersonal ER; Zaki & Williams, 2013). Intrapersonal ER refers to how individuals self-regulate their emotions whereas interpersonal ER involves recruiting others in the regulation of one's emotions (Gross & John, 2003; Zaki & Williams, 2013). Despite emotions often occurring in the context of social interactions, ER research has focused on individuals' habitual use of different intrapersonal ER strategies and their relations to psychopathology. Significantly less attention has been paid to interpersonal ER and its impact on both positive (e.g., well-being, relationship quality) and negative (e.g., psychopathology) outcomes (Barthel, Hay, Doan,

Hofmann, 2018). Recognizing the prominent role of ER in development and functioning, the objectives of this study were to identify emerging adults' intra- and inter-personal ER strategy use and examine the links between their ER strategy use and difficulties and their internalizing symptoms, well-being, and relationship quality.

Emerging Adults and Mental Health

Emerging adulthood is a distinct developmental period between adolescence and adulthood (Arnett, 2000). It is characterized by the extensive changes in emerging adults' autonomy, relationships, social roles, and environment (Arnett, 2000; Lane, 2015). In westernized societies, some of the transitions in emerging adulthood involve graduating from high school, moving out of parents' home, entering and leaving postsecondary education, and forming intimate relationships (Arnett, 2004). Each of these transitions is associated with important developmental tasks and has differential long-term implications on emerging adults' life paths (Schulenberg, Sameroff, & Cicchetti, 2004; Weiss, Freund, & Wiese, 2012). In this demanding life stage, emerging adults may experience stress and feeling of being overwhelmed that may compromise their mental health and well-being (Arnett, Žukauskienė, & Sugimura, 2014; Lane, Leibert, & Goka-Dubose, 2017; Weiss et al., 2012). However, they may also have the opportunity to explore their identity, establish personal responsibility, and develop new relationships (Arnett, 2014; Arnett & Tanner, 2006). From a developmental psychopathology perspective, emerging adulthood is a crucial turning point for both positive and negative development (Schulenberg et al., 2004). Identifying the pivotal ways that different risk and protective factors influence emerging adults' psychosocial adjustment will contribute to the understanding and promoting of their positive development (Conley, Kirsch, Dickson, & Bryant, 2014).

Emerging Adults in Post-Secondary Settings

Within emerging adulthood, transitioning to post-secondary education is a major developmental task that contributes to greater difficulties experienced by young people (Conley et al., 2014; Schulenberg et al., 2004). Canada has one of the highest postsecondary education participation rates in the world with more than half of Canadians aged 25 to 64 (54%) possessing college or university qualifications in 2016 (Organisation for Economic Co-Operation, 2017; Statistics Canada, 2017). Emerging adults in postsecondary education face numerous academic, financial, and social stressors, and if not managed adaptively, these stressors have the potential to negatively impact their mental health (Schulenberg et al., 2004). Recent findings indicate that one-third of Ontario students felt depressed and/or experienced overwhelming anxiety in the past year and 12% of Canadian first-year university students reported having at least one mental health issue (Canadian University Survey Consortium, 2016; Ontario University and College Health Association, 2016). A national study also demonstrated that a significant portion of undergraduates reported elevated stress, feeling constantly under strain, and feeling unhappy or depressed (Adlaf, Demers, & Gilksman, 2005). This finding is concerning, because successfully transitioning to postsecondary education and into emerging adulthood can bring about positive changes in multiple domains of psychosocial adjustments, including fewer internalizing symptoms and higher levels of well-being and relationship quality (Conley et al., 2014; Schulenberg et al., 2004).

Although traditional research on university students' adjustment has focused on the presence or absence of psychopathology as an indicator of their mental health, researchers have highlighted the need to consider university students' well-being in an effort to better understand their overall functioning. Furthermore, Eklund, Dowdy, Jones, and Furlong (2010) have

underscored that the absence of mental health disorders does not imply that emerging adults are mentally healthy and require no support in managing their life-transition challenges. In a longitudinal study, Conley et al. (2014) found that emerging adults experienced steep declines in psychological functioning, cognitive-affective strategies (e.g., ER, coping), and social well-being as they were negotiating the transition to college. Other studies have also demonstrated that lower levels of well-being were associated with lower academic performance (Topham & Moller, 2011), higher frequency of cigarette smoking (Ridner, 2005), and greater alcohol use (Bowman, 2010). Compared to emerging adults who were employed, emerging adults who were in post-secondary education experienced significantly lower positive mental health and higher negative mental health (Winzer, Lindblad, Sorjonen, & Lindberg 2014). More importantly, Winzer et al.'s (2014) study provided support to the core tenant of Keyes' dual continua model (2002, 2005).

According to Keyes's (2002, 2005) *dual continua model*, well-being and psychopathology are two complementary but distinct features of a complete state of mental health. Keyes's framework shows that individuals with mental illness can flourish, meaning that they can have a high level of well-being and are functioning optimally (Keyes, 2005). Specifically, flourishing encompasses emotional well-being (e.g., feeling interested in life), psychological well-being (e.g., feeling good at managing responsibilities of daily life), and social well-being (e.g., having something important to contribute to society; Keyes, 2005). In contrast, individuals without mental illness can languish (i.e., low well-being) and not live a meaningful life (Keyes, 2005). The dual continua model has been applied to understanding the functioning of Canadian university students and the results showed that although the majority of students (67%) were moderately healthy (i.e., neither languishing nor flourishing), only 24.2% of students were

flourishing and 8.7% of students fit the criteria for languishing (Peter, Roberts, & Dengate, 2011). These statistics showed that students who were free of any mental disorder were not necessarily flourishing in lives. Compared to students who were moderately healthy or languishing, students who were flourishing reported better academic functioning, better physical health, were more likely to forgive other individuals, and exhibited stronger religious faith (Keyes et al., 2012; Peter et al., 2011). Efforts to promote university students' mental health via strengthening their well-being may have the potential to optimize their mental health and overall functioning (Eklund et al., 2010).

Subjective happiness (i.e., affective evaluation of one's life) is another important indicator of well-being (Lyubomirsky, King, Diener, 2005). The broaden-and-build theory indicates that positive emotions broaden one's resources to manage social and cognitive demands; thus, a person's positive affect can have long-term social and mental health benefits (Fredrickson, 1998; 2001). Research showed that greater levels of happiness are associated with many positive outcomes among college students. For instance, happiness was found to be associated with higher overall quality of friendship (Demir & Weitekamp, 2007), lower level of perceived stress (Schiffrin & Nelson, 2010), and greater emotional closeness to others (King, Vidourek, Merianos, & Singh, 2014). In line with the dual continua model, the examination of emerging adults' flourishing and subjective happiness offers a mean to examine their mental health beyond psychopathology outcomes. Given that emerging adulthood is a key developmental transition period, it is crucial to explore factors, such as ER strategy use and dysregulation, that may influence both positive and negative development among emerging adults.

Emotion Regulation and Mental Health

Emerging adulthood is a critical turning point for individuals' trajectories of mental health because decisions made in this life stage can have lasting consequences throughout adulthood (Schulenberg et al., 2004). Success in navigating these transitions is partly determined by emerging adults' progress in key developmental tasks, such as the development of ER strategies and abilities (O'Connor et al., 2010; Shoda, Mischel, Peake,1990). Ideally, ER strategies and abilities become more refined and effective in regulating people's emotions across development (Brewer, Zahniser, & Conley, 2016; Zimmerman & Iwanski, 2014).

Intrapersonal Emotion Regulation. According to the *process model*, ER is conceptualized as a mechanism through which individuals initiate, modify, sustain, and express their emotions (Gross, 1998; Gross & Thompson, 2007). Individuals often rely on a common repertoire of ER strategies to regulate emotions, and these strategies can act as protective or risk factors against negative mental health outcomes (Aldao & Nolen-Hoeksema, 2012b; Gross, 2013). For instance, cognitive ER strategies has been conceptualized as the conscious, mental strategies people use to manage the intake of emotional information (Garnefski, Kraaij, & Spinhoven, 2001). Cognitive ER strategies are different from coping, which refers to processes that take place over a period of time (Gross, 2015) or behavioural strategies that focus on changing one's actions (e.g., Aldao et al., 2010). The five cognitive ER strategies most frequently described in relation to mental health outcomes are positive reappraisal, acceptance, rumination, self-blame, and catastrophizing (Garnefski & Kraaij, 2007a). ER strategies are generally conceptualized as 'adaptive' and 'maladaptive' based on their associations with psychopathology symptoms (Rawana, Flett, McPhie, Nguyen, & Norwood, 2014). Positive reappraisal refers to thoughts of creating a positive meaning to the event in terms of personal

growth (Garnefski et al., 2001). Acceptance refers to thoughts of accepting what you have experienced (Garnefski et al., 2001). Positive reappraisal and acceptance are said to serve an adaptive function as they are associated with lower depression and anxiety symptoms (Garnefski et al., 2001), greater subjective and psychological well-being (Balzarotti, Biassoni, Villani, Prunas, & Velotti, 2016), and greater resilience (Min, Yu, Lee, & Chae, 2013). In contrast, rumination refers to repetitively focusing on the negative aspects of an experience; self-blame refers to thoughts of putting the blame for what you have experienced on yourself; and catastrophizing refers to explicitly emphasizing the terror of what you have experienced (Garnefski et al., 2001). Rumination, self-blame, and catastrophizing have been linked to negative outcomes for individuals' mood and functioning, such as depressive and anxiety symptoms (Garnefski & Kraaij, 2007a). Thus, research indicates that different regulatory strategies are associated with different mental health outcomes (Garnefski & Kraaij, 2007a).

A substantial amount of empirical work has focused on the differential functions of strategies individuals use to modify their emotional experiences and expression of emotions, as well as their associations with mental health outcomes in childhood, adolescence, and adulthood (e.g., Aldao & Nolen-Hoeksema, 2012b; Garnefski, Rieffe, Jellesma, Terwogt, & Kraaij, 2007b; Gross & John, 2003; Silk, Steinberg, & Morris, 2003). Research on intrapersonal ER in emerging adulthood is relatively scarce and it is unclear how emerging adults regulate their emotions and the adaptiveness of their ER repertoire (Rawana et al., 2014). This is a significant gap as age-related differences exist in ER development, with a general trend of increasing use of adaptive ER with age (Zimmermann & Iwanski, 2014). Furthermore, ER becomes increasingly relevant to emerging adults as they apply and consolidate their ER skills to manage the emotional instability associated with the shifts in their developmental contexts (Arnett, 2001;

Roisman et al., 2004). Thus, ER enables emerging adults to manage their daily challenges adaptively and influences their psychosocial adjustment within this stressful developmental period (Brewer et al., 2016).

In the limited literature on EAs, rumination and catastrophizing were found to be related to higher depressive symptoms among late adolescents and young adults (Garnefski & Kraaki, 2006). Aldao and Nolen-Hoeksema (2010) found putatively maladaptive ER strategies (e.g., rumination) were more strongly associated with depression, anxiety, and eating disorders among undergraduate students than putatively adaptive strategies (e.g., reappraisal). In line with Aldao et al.'s (2010) meta-analysis on the relationships between ER strategies and psychopathology symptoms, habitual use of maladaptive ER strategies was found to be more detrimental to mental health than the lack of adaptive ER strategies in place.

Interpersonal Emotion Regulation. The process model (Gross, 1998; Gross & Thompson, 2007) and the work on cognitive ER (Garnefski et al., 2001) have been highly influential in the study of ER, generating numerous studies focused on the intrapersonal process of ER (e.g., Gross & John, 2003; Garnefski & Kraaij, 2006). Much less attention has been placed on *interpersonal* ER, broadly defined as the strategies that individuals employ within social interactions to regulate their emotions, as identified by Zaki and Williams's (2013) conceptual framework of interpersonal ER. This gap is significant, because the development of ER begins early in attachment relationships and is continually shaped by individuals' interactions with their families, peers, and even romantic partners (Coan, 2010; Eisenberg, Spinrad, & Eggum, 2010; Hofmann, 2014; Mikulincer & Shaver, 2007; Sameroff, 2010). As individuals mature, they become more skilled in regulating their own emotions and eliciting others to support their ER process (Hofmann & Doan, 2018). Overall, ER is a social process that serves communicative

functions (e.g., allow individuals to disclose their emotions and receive support from others) and is instrumental to emerging adults' positive adjustment (Hofmann, 2014).

Similar to intrapersonal ER, interpersonal ER involves the goal of changing one's emotional states (Dixon-Gordon, Bernecker, & Christensen, 2015b). Interpersonal ER, however, can only take place within a social context, while intrapersonal ER can occur both alone and in social situations (Zaki & Williams, 2013). Zaki and Williams' (2013) framework addressed a major limitation in intrapersonal ER research, which is the lack of examination of the social aspects of ER. The authors argued that people often draw on others' support in altering their own affective states and provided evidence that greater use of interpersonal ER was associated with better well-being and social relationships formation (Zaki & Williams, 2013; Williams et al., 2018). A number of interpersonal processes, such as sharing emotions with others and support seeking, have also been widely cited as individuals' responses to emotional events and have many reported benefits, such as intensifying one's positive affect (Gable & Reis, 2010), facilitating emotional recovery (Zech, Rimé, & Pennebaker 2007), and reducing stress (Gable & Reis, 2010; Reis et al., 2010; Rime, 2009). Furthermore, advice seeking was found to be associated with lower level of depressive symptoms within a sample of undergraduate students (Aldao & Dixon-Gordon, 2014).

Hofmann (2014) further extended Zaki and William's (2013) framework to underscore the role of interpersonal ER in mood and anxiety disorders. For instance, sharing emotions with others can elicit social support and lead to temporary stress reduction (Nils & Rimé, 2012). However, over-reliance on one person for ER support or engaging in excessive reassurance-seeking can lead to emotion dysregulation and increased vulnerability for psychopathology (Dixon-Gordon, Haliczer, Conkey, & Whalen, 2018; Hofmann, 2014). Although emerging

research has begun to indicate the importance of interpersonal ER, research on interpersonal ER and its association with psychopathology remains largely theoretical (Dixon-Gordon et al., 2015b; Hofmann, 2014; Zaki & Williams, 2013). There is some evidence that emerging adults use social support seeking strategies (e.g., talking to people, asking for advice, etc.) to regulate their negative emotions more often than adolescents (Zimmerman & Iwanski, 2014), which might indicate the particular importance of interpersonal ER in emerging adulthood as young people navigate close relationships (Furman & Collins, 2009). Yet, little is known about how interpersonal ER strategy use relates to emerging adults' well-being (Williams et al., 2018), especially in the context of a significant transition such as postsecondary education. Therefore, a comprehensive understanding of how both intra- and inter-personal ER processes contribute to emerging adults' functioning is needed (Dixon-Gordon et al., 2015b; Zimmerman & Iwanski, 2014).

Emotion Dysregulation. While the research on ER typically focuses on people's habitual use of ER strategies, an alternative framework, the *ability-based model* of ER (Gratz & Roemer, 2004) has also received considerable attention and support in the study of different components of ER. According to the ability-based model, Gratz and Roemer (2004) defined *emotion dysregulation* as having difficulties in any or all of these four ER abilities: 1) awareness and understanding of emotions, 2) acceptance of emotions, 3) ability to control impulsive behaviours and behave in accordance with desired goals when experiencing negative emotions, and 4) access to context-appropriate strategies to modulate emotional responses to meet individual goals. These dispositional ER abilities facilitate individuals' adaptive responses to emotional events (Gratz & Roemer, 2004).

Emotion dysregulation is integral to the development and maintenance of many mental health conditions, such as depression, anxiety, and substance use disorders (Berking et al., 2008; Berking & Wupperman, 2012; Turk, Heimberg, Luterek, Mennin, & Fresco, 2005). Individuals with generalized anxiety disorder had more difficulty identifying, accepting, and influencing their emotional reactions than normal control individuals (Mennin, Heimberg, Turk, & Fresco, 2005). Emotion dysregulation was also associated with an increased risk for anxiety symptoms, aggressive behavior, and eating pathology in adolescence (McLaughlin, Hatzenbuehler, Mennin, & Nolen-Hoeksema, 2011). In addition to the established link between ER difficulties and psychopathology, emotion dysregulation is highlighted as a transdiagnostic treatment construct across a broad range of mental disorders (Sloan, Hall, Moulding, Bryce, Mildred, & Staiger, 2017). In particular, reduction in maladaptive ER strategies use and overall emotion dysregulation appeared to co-occur with reduction in anxiety, depression, substance, eating, and borderline personality disorders symptoms following psychological treatments (Sloan et al., 2017). These findings lend support to the growing evidence base that emotion dysregulation plays a central role in psychopathology.

In non-clinical emerging adult samples, Saxena, Dubey, and Pandey (2011) reported that ER difficulties were significantly associated with lower level of happiness and life satisfaction among adolescents and adults. Better understanding of the role of emotion dysregulation in positive mental health outcomes is crucial for identifying which ER abilities promote optimal well-being and functioning and should be highlighted as important targets for clinical interventions (Sloan et al., 2017). More importantly, researchers in the ER field have recently noted that emotion dysregulation and ER strategy use are two distinct processes that capture important aspects of the complex construct of ER (Tull & Aldao, 2015). It is crucial to integrate

the ER strategy-based and ability-based models for a better understanding of the role of ER in everyday life and the development of mental health issues (Naragon-Gainey, McMahon, Chacko, 2017; Tull & Aldao, 2015). This is especially important in university students as weaker ER abilities were related to poorer adjustment (i.e., higher depression, anxiety and perceived stress) among first-year students (Park, Edmondson, & Lee, 2012). Further, university students who experienced greater difficulties in emotional acceptance and accessing effective ER strategies when upset were also more likely to experience heightened negative affect following a traumatic event (O'Bryan, Mcleish, Kraemer, & Fleming, 2013).

Influence of Emotion Regulation on Relationship Quality

Research on different ER theoretical models has shown that maladaptive intra- and inter-personal ER strategy use and emotion dysregulation are core features of many psychopathology symptoms (Berking et al., 2008; Dixon-Gordon et al., 2018; Garnefski, Teerds, Kraaij, Legerstee, & van Den Kommer, 2004). There is also a growing evidence of the associations between ER and individual's well-being (e.g., Balzarotti, 2016; Gross & John, 2003). Thus far, research has focused mainly on the intrapersonal consequences of ER, rather than on the interpersonal consequences, such as relationship quality (Aldao & Nolen-Hoeksema, 2010; English & John, 2012). This omission is important to address, as Thompson (1994) proposed that adaptive ER promotes social skills that are crucial to children's development of social relationships, such as the ability to recognize and interpret social cues and evaluate alternate responses to emotionally negative social situations. Furthermore, emotions are often experienced and regulated in social contexts and ER is frequently motivated by socially-oriented goals, such as avoiding interpersonal conflicts and maintaining social harmony (English, Lee, John, & Gross, 2017; Gross, Richards, & John, 2006). For instance, people were more likely to use suppression

to avoid conflicts with others and keep up appearances in the presence of others (English et al., 2017). Thus, people's ER patterns in daily life are likely to have an impact on their relationship quality. In the current study, relationship quality refers to features including companionship, disclosure, emotional support, approval, and satisfaction experienced in a relationship (Furman & Buhrmester, 1985).

As individuals progress through adolescence and emerging adulthood, relationship quality with primary caregivers changes in nature as they rely more on peers for support (Furman & Collins, 2009). Increase in emerging adults' engagement in interpersonal ER might be a reflection of their success in establishing stable relationships (Roisman et al., 2004; Zimmerman and Iwanski, 2014). Close relationships can give rise to strong emotions, which provide opportunities for emerging adults to practice and refine their ER skills, thereby, promoting greater ER capacities for optimal functioning (Gross & John, 2003; Luginbuehl & Schoebi, 2018). Furthermore, emerging adults in postsecondary education often establish new peer and romantic relationships (Arnett et al., 2014; Lopez, Chervinko, Strom, Kinney, & Bradley, 2005). Their ER capacities may influence their relationships with their parents, as well as peers and romantic partners (Demir, 2010; Hofmann & Doan, 2018).

The many strategies people use to regulate their emotions in social settings may have significant implications for interpersonal functioning outcomes (English & John, 2013; Gross & John, 2003; Williams et al., 2018). Individuals who engaged in reappraisal more often were more likely to share their positive and negative emotions with others, had closer relationships, and were more well-liked by their peers than individuals who engage in reappraisal to a lesser extent (Gross & John, 2003). On the contrary, individuals who tended to use suppression reported significantly lower social support and had fewer people whom they could turn to for emotional

problems than those who used suppression less often (Gross & John, 2003). Among students who were in the first year of college, greater use of suppression of emotions was predictive of multiple negative social outcomes, such as lower perceived closeness with others and social satisfaction (Srivastava et al., 2014). Brewer and colleagues (2016) also demonstrated that reappraisal and suppression significantly predicted students' relationship satisfaction, social support, and resilience over the course of their first year of college. With regards to the use of interpersonal ER, a recent study by Williams and colleagues (2018) showed that people inclined to use interpersonal ER strategies reported sharing their emotions with others more openly and experienced greater empathy from others. A study on ER abilities has also demonstrated that higher ER abilities were associated with higher relationship quality with others, greater support from parents, and fewer conflicts with close friends (Lopes, Salovey, & Straus, 2003). These findings indicate that some ER strategies, such as reappraisal, may promote positive interactions with others, facilitate the development of close relationships, and lead to better interpersonal outcomes (Lopes, Salovey, Cote, & Beers, 2005). However, it remains unclear whether other specific intra- and inter-personal ER strategy or general difficulties with ER may have differential associations across individuals' relationships, particularly among emerging adults. The limited research on emerging adults' ER in relation to changes in relationships and social support systems indicates a pressing need to better understand how emerging adults regulate their emotions in social contexts, as well as the associations between their ER and interpersonal functioning.

The Present Study

Emerging adulthood is a time of emotional instability and comprises changes within individuals and their environments (Arnett et al., 2014). Having a wide range of intra- and inter-

personal ER strategies at their disposal is likely an important component of an adaptive ER repertoire that helps emerging adults manage shifts in contextual demands (Brewer et al., 2016). Within the limited research on ER in emerging adulthood, studies have focused predominantly on intrapersonal ER strategies (e.g., cognitive reappraisal and expressive suppression) and much less attention has been paid to the interpersonal ER process (Dixon-Gordon et al., 2015b). ER researchers have also underscored the importance to explore the relative importance of different intra- and inter-personal ER strategies, as well as ER difficulties in people's adjustment (Hofmann, Carpenter, & Curtiss, 2016; Naragon-Gainey et al., 2017). Emerging adults seek increasing autonomy and the significant changes in their social network warrant research to examine the how they involve other people in their ER and the links between their ER and mental health and relationship outcomes (Arnett et al., 2014; Brewer et al., 2016). Furthermore, the association between ER and well-being is less clear given that previous work on ER has also focused mostly on ER and psychopathology (e.g., Aldao & Nolen-Hoeksema, 2010, 2012b). As highlighted in the dual continua model, well-being and psychopathology are distinct constructs, each uniquely contributing to healthy functioning (Keyes, 2002, 2005). Intrapersonal consequences, such as psychopathology and well-being outcomes are nonetheless important indicators of adjustment. Interpersonal functioning is equally important to consider given that regulatory efforts occur primarily in interpersonal contexts (Gross et al., 2006). Therefore, the present study examined the unique associations between different aspects of ER and individuals' psychopathology, as well as their well-being and relationship quality to gain a comprehensive understanding on the relationships between emerging adults' ER and their overall adjustment.

Objectives

Building on these growing areas of research, I investigated the intra- and inter-personal ER strategies employed by emerging adults and examined the associations between their intra- and inter- personal ER strategy use and difficulties and three psychosocial outcomes, including internalizing symptoms (depressive and anxiety symptoms and perceived stress) and well-being (subjective happiness and flourishing), and relationship quality. Given that interpersonal ER is a relatively new construct, the current study is valuable in revealing the complex nature of intra- and inter-personal ER patterns in emerging adults' lives. The main objectives of the study were to:

1) identify the intra- and inter-personal ER strategies employed by emerging adults, and

2) investigate the relative associations between emerging adults' habitual use of intra- and inter-personal ER strategies and ER difficulties and their internalizing symptoms (depressive and anxiety symptoms and perceived stress), well-being (flourishing and subjective happiness) and relationship quality with their mother, father, best friend, and romantic partner.

Hypotheses

Based on previous literature, it was hypothesized that:

1a) Participants report greater use of putatively adaptive intrapersonal ER strategies (positive reappraisal and acceptance) than putatively maladaptive intrapersonal ER strategies (catastrophizing, rumination, and self-blame; Garnefski & Kraaij, 2006).

1b) Participants report greater use of emotion-focused interpersonal ER strategies (enhancing positive affect and soothing) than problem-focused interpersonal ER strategy (perspective taking and social modelling; Brewer et al., 2016).

2) The use of putatively adaptive intrapersonal ER strategies (positive reappraisal and

acceptance) and interpersonal ER strategies (enhancing positive affect, soothing,

perspective taking, and social modelling) are related to fewer internalizing symptoms,

higher well-being and higher relationship quality. The use of putatively maladaptive

intrapersonal ER strategies (catastrophizing, rumination, and self-blame) and ER

difficulties are related to more internalizing symptoms, lower well-being, and lower

relationship quality. ER difficulties have a larger effect on mental health and relationship

outcomes than intrapersonal ER strategies. This hypothesized model is depicted in Figure

1.
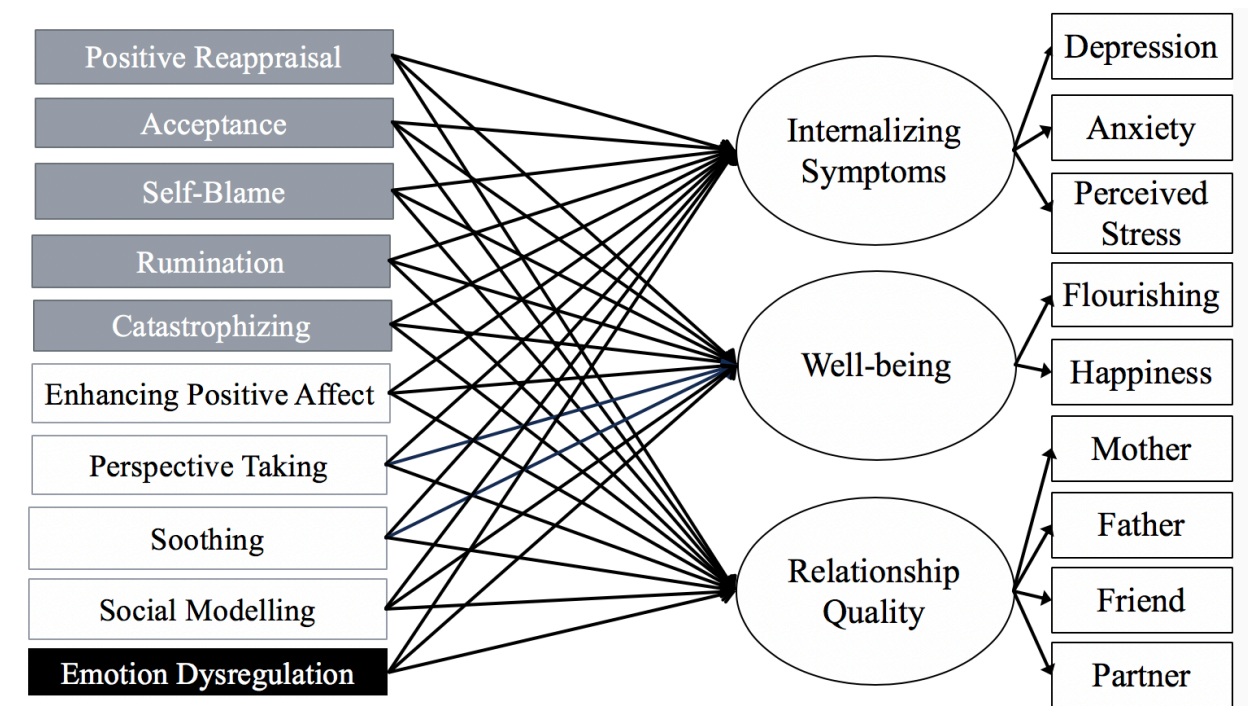
Figure 1. Hypothesized model. Grey boxes represent intrapersonal ER strategies, white boxes

represent interpersonal ER strategies, and black box represents emotion dysregulation.

Method

Participants

The total sample included 790 emerging adults (M_{age} = 20.40, SD = 2.13, range = 18.05 - 29.36) enrolled in undergraduate studies at a large, urban university. A total of 1,036 students consented to participate in the study. Participants were excluded if their reported age was outside the emerging adult age range of 18 to 29, if they completed the study in less than 10 minutes, and/or if they completed less than 70% of the survey. The sample was largely female (n = 637, 80.63%), living at home (n = 633, 80.13%), and in their first year of study (n = 427, 54.05%). The ethnically diverse sample comprised primarily participants who self-identified as White/Caucasian (n = 198, 25.06%), South Asian (e.g., India, Pakistan; n = 178, 22.53%), and Asian and Southeast Asian (e.g., China, Japan, Vietnamese; n = 145, 18.35%). Table 1 outlines the demographic characteristics of participants included in the study. Participants were recruited through the Undergraduate Research Participant Pool and university LISTSERVs. Participants were compensated with course credit or had the opportunity to enter in a draw for one of five $25 Tim Hortons gift certificates. Data collection took place between December 2018 and April 2019. Ethics approval was obtained from the York University Research Ethics Board.

Table 1

Demographic Characteristics of Participants (n = 790)

Demographic Variables	*n*	Percentage (%)
Gender		
Female	637	80.63
Male	144	18.23
Other	3	.38
Ethnicity		
White/Caucasian	198	25.06
South Asian (e.g., India, Pakistan)	178	22.53
Asian (e.g., China, Japan) and Southeast Asian (Filipino, Vietnamese)	145	18.35
Middle Eastern	94	11.90
Black	65	8.23
West indies (e.g., Trinidad and Tobago, Guyana)	40	5.06
Hispanic	24	3.04
Mixed Race	22	2.78
Other	12	1.52
Year of Study		
First year	427	54.05
Second year	168	21.27
Third year	114	14.43
Fourth year	41	5.19
Fifth year or above	28	3.54
Other	7	.89
Living Situation		
Parents/guardians' home	633	80.13
Residence	55	6.96
Off campus	86	10.87
Other	9	1.14

Measures

      Demographics. Participants reported on their age, gender, year of undergraduate studies, living arrangement, and ethnicity (see Appendix C).

      Intrapersonal ER strategies. The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski & Kraaji, 2007a; Appendix D) is a self-report measure of participants' use of cognitive ER strategies when experiencing stressful life events. Two putatively positive strategies, positive reappraisal (e.g., "I think I can learn something from the situation) and acceptance (e.g., "I think I have to accept the situation), and three putatively negative strategies, self-blame (e.g., "I feel that I am the one to blame for it"), rumination (e.g., "I often think about how I feel about what I have experienced"), and catastrophizing (e.g., "I keep thinking about how terrible it is what I have experienced") were selected for this study based on their associations with adaptive and maladaptive mental health outcomes (Aldao & Nolen-Hoeksema, 2011; Garnefski & Kraaij, 2007a; Balzarotti et al., 2016). Participants rated each item on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). Scores on the four items within the same subscale were summed to create a strategy score, with higher scores representing greater use of that particular strategy. The CERQ demonstrates strong psychometric properties (Garnefski & Kraaji, 2007a). In the current study, all subscales have acceptable to good internal consistency (positive reappraisal, Cronbach's α = .83; acceptance, Cronbach's α = .73; rumination, Cronbach α's = .71; self-blame, Cronbach's α = .83; catastrophizing, Cronbach's α = .75).

      Interpersonal ER strategies. The Interpersonal Emotion Regulation Questionnaire (IERQ; Hofmann et al., 2016; Appendix E) is a 20-item self-report questionnaire that assesses how individuals utilize others to regulate their own emotions. There are five items for each of the four subscales: 1) enhancing positive affect (e.g., "I like being around others when I'm excited to

share my joy"), 2) perspective taking (e.g., "Having people remind me that others are worse off helps me when I'm upset"), 3) soothing (e.g., "I look for other people to offer me compassion when I'm upset"), and 4) social modelling (e.g., "Hearing another person's thoughts on how to handle things helps me when I am worried"). Participants indicated how much each statement is true using a scale from 1 (*not true for me at all*) to 5 (*extremely true for me*). Subscale scores were computed by summing all five items for each subscale. Higher scores indicate greater use of that particular interpersonal ER strategy. All subscales had good to excellent internal consistency (Hofmann et al., 2016). In this study, all subscales showed good to excellent internal consistency (enhancing positive affect, Cronbach's α = .84; perspective taking, Cronbach's α = .82; soothing, Cronbach's α = .90; social modelling, Cronbach's α = .87).

ER difficulties. The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; Appendix F) consists of 36 items that assess six aspects of emotional dysregulation: 1) non-acceptance of emotional responses, 2) difficulties engaging in goal-directed behaviour, 3) impulse control difficulties, 4) lack of emotional awareness, 5) limited access to ER strategies, and, 6) lack of emotional clarity. Participants responded to each item on a scale of 1 (*almost never*) to 5 (*almost always*). Items are summed to create a total emotion dysregulation score. Higher scores indicate greater difficulties with ER. Sound psychometric properties have been reported for the DERS (Gratz & Roemer, 2004). The DERS had excellent internal consistency in the current study (Cronbach's α = .94).

Internalizing symptoms. Internalizing symptoms were assessed via questionnaires on depressive symptoms, anxiety symptoms, and perceived stress.

Depressive symptoms. The Center for Epidemiologic Studies Depression Scale, Revised (CESD-R; Eaton, Smith, Ybarra, Muntaner, & Tien, 2004; Appendix G) is a widely used 20-item

self-report measure of depressive symptoms severity in the general population. The CESD-R is

an updated version of the CES-D (Radloff, 1977) and reflects the DSM-IV criteria for depression

(Eaton et al., 2004). Participants were asked to indicate how frequently they feel a certain way

during the past week (e.g., "I was bothered by things that usually don't bother me") on a scale of

four-point scale, ranging from 1 (*rarely or none of the time/less than 1 day*) to 4 (*most of or all of

the time/ 5-7days*). The total CESD-R score was calculated by summing the responses of all 20

items. Higher scores indicate higher depressive symptoms. The scale demonstrated excellent

internal consistency in the literature (Van Dam & Earleywine, 2011) and in the present study

(Cronbach's α = .95).

Anxiety symptoms. The Spielberger State-Trait Anxiety Inventory Six-Item Short Form

(STAI-Y-6; Marteau & Bekker, 1992; Appendix H) is a briefer version of the 40-item STAI

(Spielberger, 1983) designed to assess state anxiety. Participants rated six items (e.g., "I feel

tense") that describes how they feel right now, at the moment on a scale of 1 (*not at all*) to 4

(*very much*). To calculate the total STAI score, scores on the six items are summed and

multiplied by 20/6 (Marteau & Bekker, 1992). Higher scores are indicative of higher anxiety

symptoms. The STAI-Y-6 has acceptable psychometric properties that are comparable to those

obtained using the 40-item STAI (Marteau & Bekker, 1992). This scale demonstrated good

internal consistency in this study (Cronbach's α = .84).

Perceived stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein,

1994; Appendix I) is a 10-item measure of the degree to which participants appraise their lives as

stressful during the previous month. Participants responded to each item describing their feeling

and thoughts (e.g., "How often have you been upset because of something that happened

unexpectedly?") on a 5-point Likert scale of 1 (*never*) to 5 (*very often*). A higher total score

indicates greater stress. The PSS has demonstrated good psychometric properties and been used in studies with university students (Roberti, Harrington, & Storch, 2011). The PSS demonstrated good internal consistency in the present study (Cronbach's α = .83).

Well-being. Well-being was assessed via questionnaires on subjective happiness and flourishing.

Subjective happiness. The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999; Appendix J) is a brief 4-item measure for assessing subjective happiness. For the first item, participants rated how happy they were using the absolute ratings from 1 (*not a very happy person*) to 7 (*a very happy person*). For the second item, participants rated how happy they were relative to their peers on a scale of 1 (*less happy*) to 7 (*more happy*). For the remaining two items, participants rated the extent to which each statement describes them on a scale of 1 (*not at all*) to 7 (*a great deal*). Scores from all four items were averaged to create a composite subjective happiness score. Higher scores indicate higher subjective happiness. High internal consistency of the scale was found in samples of college students (Lyubomirsky & Lepper, 1999). The SHS demonstrated good internal consistency in the current study (Cronbach's α = .81).

Flourishing. The Mental Health Continuum-Short Form (MHC-SF; Keyes, 2005; Appendix K) is a 14-item questionnaire derived from the Mental Health Continuum-Long Form (MHC-LF; Keyes, 2002) that assess the frequency with which participants experience each symptoms of positive mental health during the past month. The MHC-SF consists of seven items representing emotional well-being (e.g., "how often do you feel happy?"), six items representing psychological well-being (e.g., "how often do you feel that your life has a sense of direction or meaning to it?"), and five items representing social well-being (e.g., how often do you feel that people are basically good?"). Participants indicated their responses on a 6-point Likert scale

ranging from 0 (*never*) to 6 (*everyday*). Mean scores were computed for the full scale, with

higher scores indicative of higher well-being. The MHC-SF is a widely used and well-validated

measure of overall positive mental health (Keyes, 2005). This scale was found to have excellent

internal consistency in the current sample (Cronbach's α = .93).

Relationship quality. The Network of Relationship Inventory – Relationship Qualities

Version (NRI-RQV; Furman & Buhrmester, 1985; Appendix L) consists of 30 items (e.g., "How

often do you turn to these people for support with personal problems?") that measure perceived

positive and negative features of relationship quality. The inventory has 10 subscales with three

items per subscales. Higher mean subscale scores indicate higher relationship quality reflected

by the positive or negative features measured. For the purpose of this study, only positive

relationship quality was of interest. Positive relationship quality is indicated by the closeness

factor score, which comprises of five positive features subscales (companionship, disclosure,

emotional support, approval, and satisfaction). Participants were asked to assess their

relationship quality with their closest maternal and paternal figure, non-romantic best friend, and

romantic partner. When asked to rate their relationship quality with their mother and father

figure, 96.58% (n = 763) and 89.24% (n = 705) of participants identified their biological/adopted

mother and father as their primary mother and father figure, respectively (Table 2). Most

participants (n = 636, 80.51%) reported having a best friend (Table 3) and approximately one-

third (n = 292, 36.96%) reported being currently involved in a romantic relationship (i.e., dating,

engaged or married; Table 4). The NRI demonstrated good psychometric properties in previous

research (Furman & Buhrmester, 2009). All subscales have excellent internal consistency in the

current study (relationship quality with mother, Cronbach α = .95; relationship quality with

father, Cronbach's α = .95; relationship quality with best friend, Cronbach α = .92; relationship

quality with romantic partner, Cronbach's α = .96).

Table 2

Number of Participants Who Have and Have Not Identified A Mother and Father Figure

	n	%
Mother figure		
Biological/adopted mother	763	96.58
Step-mother	3	.38
Other	5	.63
Do not have a mother figure	10	1.27
Father figure		
Biological/adopted father	705	89.24
Step-father	23	2.91
Other	10	1.27
Do not have a father figure	39	4.94

Table 3

Number of Participants With and Without A Best Friend

	n	%
Have a best friend	636	80.51
Do not have a best friend	128	16.20

Table 4

Relationship Status

	n	*%*
Not dating	484	61.14
Dating several people	5	.63
Dating one person exclusively	271	34.30
Engaged	7	.89
Married	9	1.14

Procedures

All participants received a consent form and provided written consent prior to the study. Participants completed an online questionnaire pertaining to their demographic information, intra- and inter-personal ER strategy use and difficulties, internalizing symptoms, well-being, and relationship quality. The order of the questionnaires was randomized for each participant. The online questionnaire was hosted on Qualtrics and took approximately 30 minutes to complete. Participants received written debriefing information and a list of mental health resources at the end of the study.

Data Analysis

Analyses were conducted using IBM SPSS version 24.0 and R. Preliminary analyses were conducted to describe the demographic characteristics of the sample and examine the internal consistency of each scale. Pearson's product moment correlations were conducted to examine the associations among all the major variables. Repeated measure ANOVA was used to examine within-person differences in emerging adults' use of different intra- and inter-personal ER strategies. Structural equation modelling (SEM) was used to examine the fit of a model to evaluate the associations between intra- and inter-personal ER strategies and difficulties and internalizing symptoms (depressive and anxiety symptoms and perceived stress), well-being (flourishing, subjective happiness), and relationship quality with mother, father, best friend, and romantic partner.

Prior to data analysis, all variables are inspected for missing values and verification of statistical assumptions. Missing data was assessed using Little's Missing Completely at Random (MCAR; Little, 1988) Test. The results suggested that the data was missing at random (MAR), such that the probability that a value on a given variable is missing depends on some other

variables. Assuming the mechanism causing the missingness is ignorable, full information maximum likelihood estimation (FIML) method is used for model estimation. FIML is one of the gold standards for estimating models with incomplete datasets (Enders & Bandalos, 2001).

To determine whether univariate normality exists, the distribution of each observed variable is examined for its skewness and kurtosis. Absolute values of skewness < 3 and absolute values of kurtosis < 10 indicated that the univariate normality assumption was not violated (Kline, 2011). All study variables were normally distributed. Mardia's test (1970) of multivariate skewness and kurtosis results indicated that the multivariate normality assumption was violated. Multivariate kurtosis affects the accuracy of test statistics and standard errors obtained with maximum likelihood (ML) estimation (West, Finch, & Curran, 1995). Therefore, the Yuan-Bentler procedure was used for estimation of the SEM model to address the degree of multivariate non-normality in the data (Yuan, Chan, Bentler, 2000).

Structural Equation Modelling. SEM is appropriate to address the study objective as it allows researchers to simultaneously model and test for the structural relationships between several independent and dependent variables (Zainol, 2016). Specifically, SEM allows for the evaluation of both the measurement model that describes the relationships between observed indicators and latent variables and the structural model that describes the relationships between latent variables. All parameter estimates are estimated simultaneously, which eliminates the need to run multiple independent regression analyses (Anderson & Gerbing, 1988). Furthermore, SEM allows the use of multiple observed variables to be associated with a latent variable, which reduces measurement error (Ullman & Bentler, 2012). The analysis in the current study was guided by Hoyle's (2012) SEM implementation framework, which involves: 1) model specification, 2) model estimation, 3) evaluation of fit, and 4) interpretation and reporting.

Model specification. SEM begins with the specification of a model where the relationships are hypothesized among the observed variables (i.e., scales) and the underlying theoretical latent variables. The observed exogenous variables are regressed onto the latent endogenous variables and confirmatory factor analysis (CFA) was used to examine the measurement model. A latent variable is considered as well-defined if the indicators are strongly related (Weston & Gore, 2006). All factor loadings are freely estimated and the variance of each latent variable is fixed to one, which allowed for straightforward comparison of the relationship between a latent variable and its observed variable. Once the measurement model is established, the structural model is specfied with the hypothesized relationships among latent variables. Relationships among latent variables can be described as covariances, direct, and indirect effects (Weston & Gore, 2006). The measurement and structural models form the full structural model, which can then be evaluated for its model fit and parameter estimates.

Model estimation. Model parameters were evaluated using FIML method, a robust approach to estimating model parameters with all available information from an incomplete dataset (Enders & Bandalos, 2001). FIML also produces unbiased parameter estimates and accurate model fit statistics with minimal standard errors, which is superior to other methods such as mean imputation (Savalei, 2010; Schafer, 1997). This method is also relatively robust to non-normality and non-independence of observations (Lei & Wu, 2012; Muthen & Muthen, 2012).

Evaluation of fit. Multiple fit indices were used for a comprehensive evaluation of the model (Hooper, Coughlan, & Mullen, 2008). Four of the most commonly reported indices were used to evaluate the model fit: 1) the root mean square error of approximation (RMSEA; Steiger, 1990), 2) Comparative fit index (CFI; Bentler, 1990), 3) Tucker Lewis Index (TLI; Tucker &

Lewis, 1973), and 4) standardised root mean square residual (SRMR; Diamantopoulos &

Siguaw, 2000). A RMSEA index below .060 and a CFI or TLI index close to .950 indicate a

good fit of the model (Hooper et al., 2008; Steiger, 2007). The RMSEA is particularly

informative given it allows researchers to calculate a confidence interval associated with the

index (MacCallum, Browne, & Sugawara, 1996). The SRMR is an absolute measure of fit, with

a value of zero indicating perfect fit and a value less than .080 considered a good fit (Hu &

Bentler, 1999). Although chi-square statistics are one of the most commonly reported fit

statistics for SEM, it is not reported in this study as the chi-square statistic is sensitive to large

sample size (Byrne, 2010). Altnerative fit indices reported above are preferred for studies with

large sample sizes (Byrne, 2010). In addition to the evaluation of model fit, the factor loadings

and standardized parameter estimates are used as effect sizes to compare the relative associations

betweeen the observed exogeneous variables and the latent endogenous variables and the

influence of the exogenous variables on the endogenous variables, respectively. Standardized

path coeffecients with absolute values less than .100 indicates a small effect, a value

appxoimiately at .300 indicates a medium effect, and a value greater than .500 indicates a large

effect (Suhr, 2006).

Results

Descriptive Statistics

Descriptive statistics for all major variables are displayed in Table 5. Bivariate

correlations among main variables were calculated and displayed in Table 6. The correlations

among the IERQ subscales and CERQ subscales were weak to moderate ($r = .021 - .313$),

indicating that the use of intra-and inter-personal ER strategies were not highly related. All

intrapersonal ER strategies were significantly correlated with emotion dysregulation ($r = -.128 -$

.494, all ps < .001), such that greater use of acceptance, rumination, self-blame, and catastrophizing were significantly associated with higher level of emotion dysregulation whereas greater use of positive reappraisal was significantly associated with lower level of emotion dysregulation. Soothing was the only interpersonal ER strategy that significantly and positively correlated with emotion dysregulation ($r = .122$, $p = .001$).

In terms of the correlations among ER strategies and outcomes, acceptance, self-blame, rumination, and catastrophizing were significantly and positively correlated with all internalizing symptoms outcomes and negatively correlated with all well-being outcomes. Acceptance and self-blame were also significantly and negatively correlated with relationship quality with mother and father. Catastrophizing was only significantly and negatively correlated with relationship quality with mother. Positive reappraisal was significantly and negatively correlated with all internalizing symptoms outcomes and positively correlated with all well-being outcomes and relationship quality with mother, father, and friend.

For interpersonal ER strategies and outcomes, enhancing positive affect was significantly and positively correlated with flourishing, subjective happiness, and relationship quality with mother, best friend, and romantic partner. Enhancing positive affect was also significantly and negatively correlated with depressive symptoms. Perspective taking was significantly and positively correlated with all well-being and relationship quality outcomes (except relationship quality with romantic partner). Perspective taking was also significantly and negatively correlated with internalizing symptoms. Soothing was significantly and positively correlated with anxiety symptoms, flourishing, and relationship quality with mother, father, and best friend. Social modelling was significantly and positively correlated with all well-being and relationship quality outcomes. Emotion dysregulation was significantly and positively correlated with all

internalizing symptoms outcomes and negatively correlated with all well-being and relationship

quality outcomes.

Table 5

Descriptive Statistics of Study Variables of Interest

Variable	*M (SD)*	Scale Range
Intrapersonal emotion regulation strategies (CERQ)		
Acceptance	13.18 (3.41)	4-20
Self-blame	11.59 (3.84)	4-20
Rumination	12.72 (3.45)	4-20
Positive reappraisal	12.97 (3.97)	4-20
Catastrophizing	9.56 (3.56)	4-20
Interpersonal emotion regulation strategies (IERQ)		
Enhancing positive affect	19.11 (4.23)	5-25
Perspective taking	13.34 (4.85)	5-25
Soothing	14.86 (5.50)	5-25
Social modelling	16.55 (4.84)	5-25
Emotion dysregulation (DERS)	95.19 (24.06)	46-180
Internalizing symptoms		
Depressive symptoms (CEDS-R)	23.73 (17.99)	0-80
Anxiety (STAI-Y-6)	44.90 (14.90)	20-80
Perceived stress (PSS)	22.06 (6.32)	0-40
Well-being		
Flourishing (MHC-SF)	39.44 (14.22)	0-70
Happiness (SHS)	17.89 (5.11)	4-28
Relationship quality (NRI)		
Mother	3.41 (.95)	1-5
Father	3.04 (.98)	1-5
Best friend	3.95 (.68)	1-5
Romantic partner	4.10 (.94)	1-5

Table 6

Summary of Pearson Correlations for Study Variables used in the Structural Equation Model

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.IERQ-E																		
2. IERQ-PT	.309**																	
3. IERQ-S	.481**	.578**																
4. IERQ-SM	.486**	.594**	.553**															
5. CERQ-A	.152**	.022	.021	.129**														
6. CERQ-SB	.090*	.088*	.146**	.168**	.364**													
7. CERQ-R	.239**	.103**	.259**	.280**	.485**	.561**												
8. CERQ-PR	.201**	.292**	.130**	.313**	.332**	-.042	.204**											
9. CERQ-C	.077*	.261**	.314**	.193**	.305**	.533**	.521**	-.022										
10. DERS	-.035	.025	.122**	.049	.128**	.494**	.322**	-.303**	.445**									
11. CEDSR	-.107**	-.073	.014	-.010	.201**	.416**	.328**	-.173**	.349**	.618**								
12. STAI	-.061	-.112**	.073*	-.018	.104**	.346**	.282**	-.269**	.309**	.537**	.535**							
13. PSS	-.052	-.154**	.025	-.019	.164**	.382**	.343**	-.284**	.338**	.656**	.613**	.590**						
14. MHC	.243**	.294**	.173**	.215**	-.109**	-.253**	-.154**	.408**	-.176**	-.502**	-.538**	-.539**	-.591**					
15. SHS	.148**	.219**	.062	.156**	-.125**	-.310**	-.240**	.392**	-.253**	-.545**	-.553**	-.498**	-.599**	.657**				
16. NRI - M	.135**	.264**	.221**	.195**	-.142**	-.131**	-.048	.176**	-.026	-.229**	-.254**	-.245**	-.232**	.348**	.286**			
17. NRI - F	.056	.310**	.220**	.199**	-.114**	-.104**	-.069	.224**	.012	-.265**	-.270**	-.247**	-.275**	.398**	.368**	.722**		
18. NRI - BF	.315**	.199**	.237**	.284**	.051	-.015	.069	.186**	.020	-.100*	-.113**	-.096*	-.036	.312**	.231**	.321**	.298**	
19. NRI - RP	.274**	.077	.108	.207**	-.051	-.069	.048	.107	-.058	-.192**	-.242**	-.236**	-.110	.338**	.188**	.273**	.267**	.467**

Note. IERQ = Interpersonal Emotion Regulation Questionnaire, E = Enhancing positive affect, PT = Perspective taking, S = Soothing, SM = Social Modelling, CERQ = Cognitive Emotion Regulation Questionnaire, A = Acceptance, SB = Self-blame, R = Rumination, PR = Positive reappraisal, C = Catastrophizing, DERS = Difficulties in Emotion Regulation Scale, CEDS-R = Center for Epidemiologic Studies Depression Scale, Revised, STAI = Spielberger State-Trait Anxiety Inventory Six-Item Short Form, PSS = Perceived Stress Scale, MHC = Mental Health Continuum-Short Form, SHS = Subjective Happiness Scale, NRI = Network of Relationship Inventory, M = Mother, F = Father, BF = Best friend, RP = Romantic partner.
** $p < .01$, * $p < .05$

Individual Differences in Intra-and Inter-Personal ER Strategy Use

For intrapersonal ER strategies, the repeated measure ANOVA results revealed that participants used some intrapersonal ER strategies significantly more than the others, F (7, 733) = 185.97, $p < .001$. Participants had the highest mean scores for acceptance, followed by positive reappraisal, rumination, self-blame, and catastrophizing. Similarly, the repeated measure ANOVA results showed that participants used some interpersonal ER strategies significantly more than others, F (1, 728) = 154.99, $p < .001$. The highest mean scores were for enhancing positive affect, followed by social modelling, soothing, and perspective taking.

Strutural Equation Modelling

A SEM model was used to examine the relative associations among emerging adults' intra- and inter-personal ER strategies and ER difficulties and their internalizing symptoms (depressive and anxiety symptoms and perceived stress), well-being (subjective happiness and flourishing), and relationship quality with their mother, father, best friend, and romantic partner (Figure 1).

Measurement model. A confirmatory factor analysis was specified with three latent constructs: internalizing symptoms with three indicators (i.e., depressive and anxiety symptoms and perceived stress), well-being with two indicators (i.e., flourishing and subjective happiness), and relationship quality with four indicators (i.e., relationship quality with mother, father, best friend, and romantic partner). Correlated error between relationship quality with mother and father was added as indicated by modification indices. An initial test of the measurement model yielded good fit indices: RMSEA [90% CI] = .059 [.046-. 073], CFI = .975, TLI = .961, SRMR = .049. Standardized factor loadings for observed variables ranged from .703 to .823 for internalizing symptoms, .794 to .834 for well-being, and .553 to .625 for relationship quality

(Table 7). All indicators significantly loaded onto their latent variables (all *ps* < .001), indicating that all the latent variables were well represented by their associated observed variables.

Structural model. The structural model included internalizing symptoms, well-being, and relationship quality as endogenous latent variables and the nine intra- and inter-personal ER strategies and emotion dysregulation as exogenous variables. The proposed model resulted in very good fit indices: RMSEA [90% CI] = .048 [.041-.055], CFI = .957, TLI = .934, SRMR = .040. The final model parameters are shown in Table 8. The standardized path coefficients demonstrated that two intrapersonal ER strategies, positive reappraisal (β^* = -.134, *p* < .001) and rumination (β^* = .180, *p* < .001), two interpersonal ER strategies, enhancing positive affect (β^* = -.066, *p* = .055) and perspective taking (β^* = -.188, *p* < .001), and emotion dysregulation (β^* = .648, *p* < .001) significantly predicted internalizing symptoms. Greater use of positive reappraisal, enhancing positive affect, and perspective taking were significantly associated with lower internalizing symptoms whereas greater use of rumination and a higher level of emotion dysregulation were significantly associated with greater internalizing symptoms. Emotion dysregulation had the strongest effect in predicting internalizing symptoms, followed by perspective taking, rumination, positive reappraisal, and enhancing positive affect. Soothing, social modelling, acceptance, self-blame and catastrophizing were not significantly related to internalizing symptoms and the effect sizes were small.

Three intrapersonal ER strategies, positive reappraisal (β^* = .349, *p* < .001), acceptance (β^* = -.160, *p* < .001), and rumination (β^* = -.155, *p* = .001), two interpersonal ER strategies, enhancing positive affect (β^* = .137, *p* < .001) and perspective taking (β^* = .175, p < .001), and emotion dysregulation (β^* = -.489, *p* < .001) significantly predicted well-being. Greater use of positive reappraisal, enhancing positive affect, perspective taking were significantly associated

with greater well-being. Greater use of acceptance and rumination and a higher levels of emotion dysregulation were significantly associated with lower well-being. The standardized path coefficients showed that emotion dysregulation and positive reappraisal had a strong negative and positive effect on well-being, respectively. Perspective taking, enhancing positive affect, acceptance, and rumination had small to moderate significant effects on well-being. Soothing, social modelling, self-blame, and catastrophizing were not significantly associated with well-being and their effects were small.

The model also indicated significant effects of enhancing positive affect ($\beta^* = .169$, $p =.044$), soothing ($\beta^* = .172$, $p = .005$), social modelling ($\beta^* = .121$, $p = .052$), acceptance ($\beta^* = -.197$, $p = .001$), positive reappraisal ($\beta^* = .181$, $p = .004$), and emotion dysregulation ($\beta^* = -.286$, $p < .001$) on relationship quality. Higher tendency to use positive reappraisal, enhancing positive affect, soothing, social modelling, and lower tendency to use acceptance, and lower levels of emotion dysregulation were significantly associated with higher relationship quality. Emotion dysregulation had the strongest effect size in predicting relationship quality, followed by acceptance, positive reappraisal, soothing, enhancing positive affect, and social modelling. Perspective taking, self-blame, rumination, and catastrophizing were not significantly associated with relationship quality, with small effect sizes.

Overall, higher internalizing symptoms were significantly associated with lower well-being ($\beta^* =-.851$, $p < .001$) and lower relationship quality ($\beta^* = -.174$, $p = .037$). Higher well-being was also significantly associated with higher relationship quality ($\beta^* = .542$, $p < .001$). The model accounted for 71.5% of the variance in internalizing symptoms, 62.4% of the variance in well-being, and 39.2% of the variance in relationship quality.

Table 7

Latent Variable Measurement Model Results from the Full Structural Equation Model

Latent variable	Indicator	*B*	*SE(B)*	*Z*	*P*	*B**
Internalizing symptoms	Depressive symptoms	7.266	.425	17.089	< .001*	.756
	Anxiety symptoms	5.582	.374	14.911	< .001*	.703
	Perceived stress	2.774	.171	16.266	< .001*	.823
Well-being	Flourishing	7.273	.400	18.187	< .001*	.834
	Subjective happiness	2.485	.131	19.008	< .001*	.794
Relationship quality	Mother	.409	.039	10.464	< .001*	.553
	Father	.425	.050	8.519	< .001*	.560
	Best friend	.334	.043	7.790	< .001*	.625
	Romantic partner	.430	.065	6.653	< .001*	.581

Note. B* = completely standardized regression slope estimate. *p < .001

Table 8

Latent Variable Structural Regression Results for the Full Structural Equation Model

Endogenous latent variable	Exogenous variable	*B*	*SE(B)*	*Z*	*P*	*B**
Internalizing symptoms	Enhancing positive affect	-.029	.015	-1.921	.055*	-.066
	Perspective taking	-.073	.016	-4.614	< .001**	-.188
	Soothing	.010	.014	.736	.462	.030
	Social modelling	.018	.015	1.132	.258	.045
	Acceptance	.034	.018	1.886	.059	.063
	Self-blame	.017	.020	.846	.398	.034
	Rumination	.098	.024	4.044	< .001**	.180
	Positive reappraisal	-.063	.016	-3.913	< .001**	-.134
	Catastrophizing	.023	.021	1.14	.254	.045
	Emotion dysregulation	.051	.004	11.741	<.001**	.648
Well-being	Enhancing positive affect	.053	.015	3.601	<.001**	.137
	Perspective taking	.059	.015	4.009	< .001**	.175
	Soothing	.005	.013	.361	.718	.016
	Social modelling	.009	.014	.633	.527	.027
	Acceptance	-.077	.018	-4.196	< .001**	-.160
	Self-blame	.007	.018	.377	.707	.016
	Rumination	-.073	.023	-3.186	.001*	-.155
	Positive reappraisal	.144	.018	8.029	< .001**	.349
	Catastrophizing	.015	.020	.764	.445	.033
	Emotion dysregulation	-.033	.003	-10.035	< .001**	-.489
Relationship quality	Enhancing positive affect	.051	.025	2.015	.044*	.169
	Perspective taking	.028	.019	1.445	.149	.105
	Soothing	.040	.014	2.778	.005*	.172
	Social modelling	.032	.016	1.946	.052*	.121
	Acceptance	-.074	.022	-3.300	.001*	-.197
	Self-blame	-.013	.020	-.687	.492	-.040
	Rumination	.004	.025	.175	.861	.012
	Positive reappraisal	.059	.020	2.863	.004*	.181
	Catastrophizing	.031	.022	1.339	.162	.087
	Emotion dysregulation	-.015	.004	-4.341	<.001**	-.286

Note. B* = completely standardized regression slope estimate. *p < .05, **p < .001
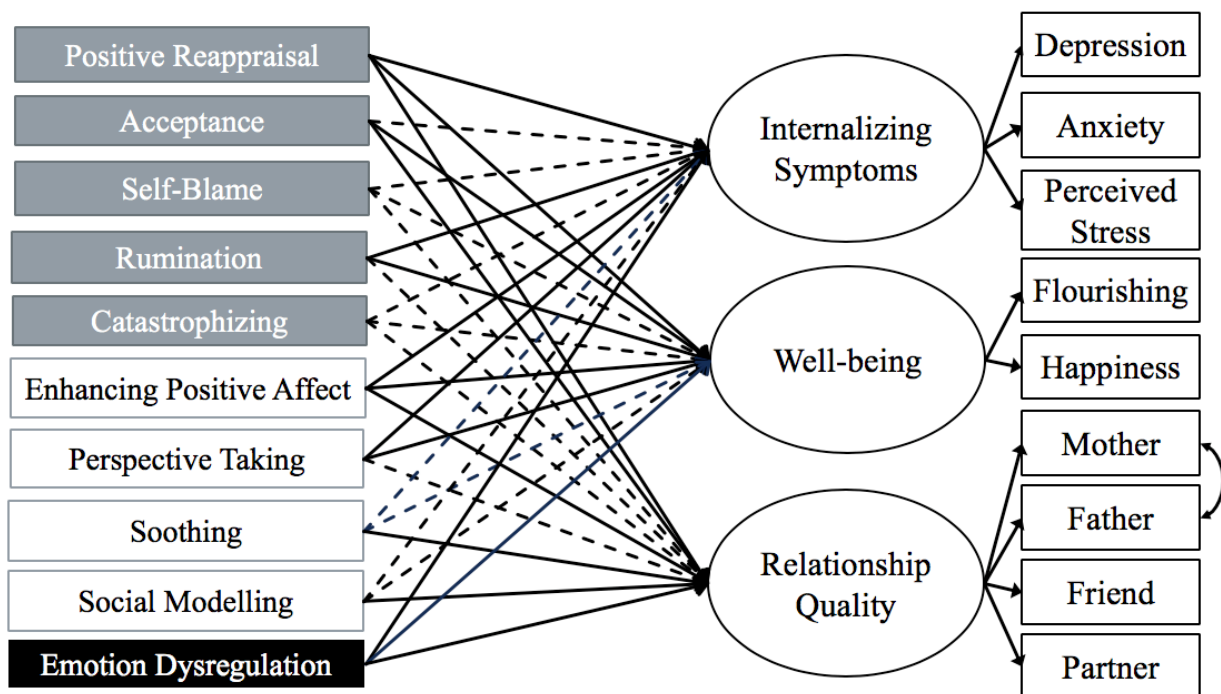
Figure 2. Structural equation model of the associations between ER components and internalizing symptoms, well-being, and relationship quality. Solid lines represent significant paths, dashed lines represent non-significant paths. Grey boxes represent intrapersonal ER strategies, white boxes represent interpersonal ER strategies, and black box represents emotion dysregulation.

Discussion

In the current study, a large, ethnically-diverse sample of emerging adults completed an online questionnaire on their intra- and inter-personal ER strategies, emotion dysregulation, internalizing symptoms, well-being, and relationship quality. The objectives of the study were to better understand the intra- and inter-personal ER strategy use among emerging adults and explore the associations between emerging adults' intra- and inter-personal ER strategy use and difficulties and their internalizing symptoms (depression and anxiety symptoms and perceived stress), well-being (subjective happiness and flourishing), and relationship quality with their

mother, father, best friend, and romantic partner. The results offer some novel insight into emerging adults' tendency to use different intra- and inter-personal ER strategy to manage their emotions. Additionally, the SEM results showed that several intra- and inter-personal ER strategies play an important role in emerging adults' internalizing symptoms, well-being, and relationship quality. Specifically, greater use of positive reappraisal, enhancing positive affect, and perspective taking, and less use of rumination were most related to emerging adults' internalizing symptoms and well-being. Intrapersonal ER strategies, such as positive reappraisal and acceptance, and interpersonal ER strategies, such as soothing and enhancing positive affect were most related to emerging adults' relationship quality.

Emerging Adults' Intra-and Interpersonal ER Strategy Use

The first objective of the study was to identify the intra- and inter-personal ER strategy use among emerging adults. Consistent with previous research (e.g., Aldao & Nolen-Hoeksema, 2012b, Balzarotti et al., 2016; Garnefski & Kraaij, 2007a) and in line with the first hypothesis, emerging adults reported greater use of putatively adaptive ER strategies, including acceptance and positive reappraisal than putatively maladaptive strategies such as rumination, self-blame, and catastrophizing. These results are promising given that emerging adulthood is a developmental period where young people experienced heightened emotions and stress (Zimmerman &Iwanski, 2014) and are at high risk of developing mood and anxiety disorders (de Girolamo, Dagnani, Purcell, Cocchi, McGorry, 2012).

Given that interpersonal ER is a relatively new construct, a novel aspect of this study is the use of the newly developed IERQ (Hofmann et al., 2016) to examine interpersonal ER strategy use among emerging adults. In partial support of the first hypothesis, emerging adults reported to most frequently use enhancing positive affect, followed by social modelling,

soothing, and perspective taking. Participants reported greater use of an emotion-focused ER strategy (i.e., enhancing positive affect) than problem-focused ER strategies (i.e., social modelling and perspective taking). Enhancing positive affect is a strategy for regulating positive affect and it makes sense that emerging adults tend to favour sharing their emotions with others to increase their positive emotions (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010). When emerging adults are faced with negative emotional events, they may engage in social modelling and perspective taking when they feel that something constructive can be done (e.g., getting a low grade on an exam;) whereas they may utilize soothing when they feel that nothing useful can be done to change the emotional events (e.g., romantic breakups; Carver, Scheier, & Weintraub, 1989). Although emerging adults may develop new relationships and experience changes in their existing social networks as they begin university, the current findings showed that emerging adults do pursue contact with others to help manage their own emotions, particularly in enhancing their positive affect (Williams et al., 2018). Together these study results revealed that emerging adults have a diverse set of intra-and interpersonal ER strategies in their repertoire, which aligns with the central assumption in Gross' process model of ER that people utilize multiple ER strategies in managing their emotions (Aldao & Nolen-Hoeksema, 2013; Aldao & Dixon-Gordon, 2014).

Associations Between Intrapersonal ER Strategies and Mental Health and Relationship Outcomes

The second objective of the study was to examine the associations between the different components of ER and psychosocial outcomes. Putatively adaptive intrapersonal ER strategies, such as positive reappraisal and acceptance are hypothesized to be related to lower internalizing symptoms, higher well-being, and higher relationship quality. The use of putatively maladaptive

intrapersonal ER strategies, such as catastrophizing, rumination, and self-blame, was hypothesized to be related to more internalizing symptoms, lower well-being, and lower relationship quality.

Positive reappraisal is considered an adaptive ER strategy and a prominent target in treatment for mood and anxiety disorders (Gross, 1998; Beck, Rush, Shaw, Emery, 1979). It is expected then, that a higher tendency to use positive reappraisal was significantly associated with fewer internalizing symptoms, higher well-being, and higher relationship quality in the current study. Positive reappraisal is associated with a reduction in negative affect (Goldin, McRae, Ramel, & Gross, 2008), fewer symptoms of psychopathology (Aldao et al., 2010), greater psychological well-being (Balzarotti et al., 2016; Gross & John, 2003; Nezelek & Kuppens, 2008) and closer relationships with others (Gross & John, 2003). The current results were also consistent with previous research showing that adaptive ER was significantly associated with greater social support and relationship satisfaction among a group of university students (Brewer et al., 2016). People who tended to use reappraisal were more likely to share their positive and negative emotions with others, which might facilitate relationship formation and development of strong social bonds (Gross & John, 2003). Indeed, friends of people who favoured reappraisal liked them more than they like people who reported lower tendency to use reappraisal (Gross & John, 2003).

Similar to positive reappraisal, acceptance is also considered an adaptive ER strategy and a target in psychopathology treatment models, such as acceptance-based treatment (Garnefski et al., 2001; Hofmann & Asmundson, 2008). It was unexpected that acceptance was significantly associated with lower well-being and not significantly associated with fewer internalizing symptoms. The negative association between acceptance and well-being found in the current

study were inconsistent with North, Pai, Hixon, & Holahan's (2011) study of undergraduate students, in which the use of acceptance was significantly associated with greater levels of happiness and positive emotions. In North and colleagues' study, acceptance was defined as willingness to experience all emotions without altering them and measured by the Acceptance Action Questionnaire (AAQ; Hayes et al., 2004). Although acceptance was defined in similar term in the CERQ, the CERQ acceptance subscale include items such as "I think I cannot change anything about it" and "I think that I must learn to live with it", which may reflect a degree of sense of hopelessness (Balzarotti et al., 2016; Martin & Dahlen, 2005). Furthermore, research on the relationship between acceptance and symptoms of psychopathology have been mixed (Aldao & Nolen-Hoeksema, 2010; Garnefski et al., 2001). For instance, Aldao and Nolen-Hoeksema (2010) found that acceptance was not significantly associated with depressive and anxiety symptoms across studies in their meta-analysis. Given that ER researchers are increasingly recognizing the role of contextual factors in influencing ER, it is possible that flexible implementation, rather than habitual use of acceptance is a better predictor of lower levels of psychopathology (Aldao, 2013; Aldao & Nolen-Hoeksema, 2012b). With regards to relationship quality, greater tendency to use acceptance was found to be associated with lower relationship quality in the current study. It is likely that being accepting of one's emotions may prevent people from sharing their emotions with others, a process that often facilitates relationships formation and closeness (Rime, 2009).

Among all three putatively maladaptive ER strategies, only rumination was significantly related to more internalizing symptoms and lower well-being, whereas self-blame and catastrophizing were not significantly related to any psychosocial outcomes. This is consistent with previous research in which greater use of rumination was linked to more internalizing

symptoms (Garnefski et al., 2001), lower levels of well-being (Balzarotti et al., 2016), and lower life satisfaction (Quoidbach et al., 2010). Moreover, rumination was linked to lower level of self-compassion (i.e., non-judgmental attitude toward oneself) and greater sense of helplessness, which might further exacerbate the impact of a negative event on one's well-being and lead to feeling overwhelmed with negative emotions (Leary, Tate, Adams, Allen, & Hancock., 2007; Neff, 2003).

Dispositional use of self-blame and catastrophizing might show non-significant and weak associations with internalizing symptoms because these relationships might be moderated by sample type. Aldao and colleagues (2010) found that the associations between some ER strategy use and psychopathology were stronger in clinical participants than in typical populations. Although self-blame and catastrophizing were not investigated in Aldao et al.'s study, self-blame and catastrophizing are two putatively maladaptive ER strategies that have been implicated in mental health disorders and may be more strongly associated with negative mental health outcomes among clinical samples (Garnefski et al., 2001). Another possibility is that the descriptive statistics in the current study showed that emerging adults reported the lowest tendency to use self-blame and catastrophizing to regulate their emotions. Self-blame and catastrophizing may not be the default strategy choice for emerging adults and the use and adaptiveness of these two ER strategies may depends on the emotional contexts where emerging adults utilize these strategies. Recent research has shown that features of emotional contexts, such as emotion intensity and emotion type predicted individuals' spontaneous use of ER strategies (Dixon-Gordon, Aldao, De Los Reyes, 2015a). For instance, the experience of anger elicits greater use of rumination and less suppression (Dixon-Gordon et al., 2015a). Future work on ER flexibility is crucial to understanding how emerging adults utilize different ER strategies

in different contexts and the impact of these strategy uses on short-term (e.g., changes in affect) and long-term adjustment (e.g., mental health outcomes; Bonanno et al., 2004). Consistent with previous research, the present study reaffirms the significant associations between positive reappraisal, rumination, and mental health and relationship outcomes among emerging adults.

Associations Between Interpersonal ER Strategies and Mental Health and Relationship Outcomes

In line with the associated hypothesis, greater use of enhancing positive affect (e.g., reaching out to others to enhance one's happiness) was significantly associated with greater well-being and better relationship quality. In previous research, people who were able to capitalize on a positive event by sharing the good news with others experienced greater positive affect (Langston, 1994) and life satisfaction (Gable, Reis, Impett, & Asher, 2004; Quoidbach et al., 2010), particularly when the person you shared the news with responded in an active and constructive manner (Gable et al., 2004). Similarly, disclosing a positive event to someone has positive implications on relationships. For instance, Gonzaga and colleague (2010) found that couples who participated in a positive-event discussion reported higher ratings of love following the interaction. Capitalizing may promote well-being and relationship quality by fostering positive interactions with others and increasing others' positive perceptions of oneself, and thus, further boosting one's self-esteem, happiness, and appraisal of life (Gable et al., 2004; Quoidbach et al., 2010). Among the four interpersonal ER strategies examined in the current study, enhancing positive affect was the only ER strategy focused on regulating positive affect whereas the other three interpersonal ER strategies (perspective taking, soothing, and social modelling) focused on regulating negative affect (Hofmann et al., 2016). These results, along with other recent evidence on positive ER strategies, underscore that the ability to increase one's

positive emotions is important for well-being and social relationships (Jose, Lim, & Bryant, 2012; Quoidbach et al., 2015).

On the other hand, greater tendency to use perspective taking was significantly associated with fewer internalizing symptoms and higher well-being in the current study. The current study results were in line with the associated hypothesis. It is possible that perspective taking involves the use of cognitive restructuring, such that by using others to remind oneself that others have it worst, people can challenge the negative thinking that underlies negative mood and adopt a positive way of thinking (Lepore, Fernandez-Berrocal, Ragan, & Ramos, 2004). This new perspective may reduce the negative impact of a stressful event and further contribute to fewer internalizing symptoms and better well-being (Lepore et al., 2004).

Finally, greater tendencies to use social modelling and soothing were significantly associated with higher relationship quality, but not with internalizing symptoms or well-being. The current study results are consistent with the social sharing of emotion literature (Lakey & Orehek, 2011; Rimé, 2009). By reaching out to others to learn about how others dealt with their emotions and to seek comfort and sympathy, emerging adults are required to describe the emotional event to another person (i.e., emotional sharing; Rimé, 2009). Emotional sharing serves as a powerful tool for eliciting empathy from others, facilitating social ties, and strengthening relationships (Lakey & Orehek, 2011; Rime, 2009).

Contrary to hypotheses, social modelling and soothing were not significantly associated with internalizing symptoms or well-being. These results were inconsistent with Aldao and Nolen-Hoeksema (2014), who found that a greater tendency to seek advice from others, a similar form of ER effort to social modelling, was significantly associated with fewer depressive symptoms. The impact of social modelling and soothing on mental health outcomes may depend

on people's regulatory goals and how others react to the sharing of emotions (Lepore et al., 2004; Marroquín & Nolen-Hoeksema, 2015; Zaki & Williams, 2013). For instance, Lepore et al. (2004) showed that participants who expressed their stress-related thoughts to a confederate who validated their disclosures showed only modest benefits of distress reduction. In contrast, sharing the feelings to a confederate who challenged the participants' thoughts with an alternate perspective elicited the greatest benefits in reducing people's distress (Lepore et al., 2004). It is likely that challenging one's negative emotional responses may facilitate adjustment through cognitive restructuring (Lepore et al., 2004), and this explanation provides further support to the significant associations between perspective taking and internalizing symptoms and well-being in the current study. Compared to perspective taking, talking with others for advice or comfort was not as effective in attenuating the impact of a negative emotional responses, which may account for the lack of significant associations between social modelling, soothing, and mental health outcomes in the current study.

The effects of social modelling and soothing on internalizing symptoms and well-being may also depend on the ER relationships from whom participants seek support. Research has shown that individuals utilized various social relationships to regulate their emotions and the relationships involved may shape the impact of the ER strategies on their adjustment (Cheung, Gardner, & Anderson, 2014). For instance, Coan and colleagues (2017) showed that social regulation of emotions (operationalized as hand-holding) by participants' spouses had greater effect in reducing the emotional impact of a negative stimuli than regulation by a stranger, which suggests that closeness with others influences the effectiveness of the interpersonal ER strategies in attenuating distress. These results suggest that different relationships may serve different ER functions. Further research is needed for a better understanding of the effectiveness of different

interpersonal ER strategies and the social relationships involved in supporting emerging adults' ER.

Associations Between Emotion Dysregulation and Mental Health and Relationship Outcomes

As expected, emotion dysregulation emerged as the strongest predictor of more internalizing symptoms, lower well-being, and lower relationship quality in this study. ER deficits are implicated in a broad range of psychopathology, such as depression (McLaughlin et al., 2011), generalized anxiety disorder (Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006), post-traumatic stress disorder (Ehring & Quack, 2010), and borderline personality disorder (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006) and have been considered as a transdiagnostic factor in the development of both internalizing and externalizing disorders (Aldao, Gee, De Los Reyes, Seager, 2016). In a sample of undergraduate students, various aspects of emotion dysregulation, including poor understanding, negative reactivity, and heightened intensity of emotions and maladaptive management of emotions were significantly related to generalized anxiety disorder, major depression, and social anxiety (Mennin, Holaway, Fresco, Moore, & Heimberg, 2007). Our results were also in line with the research on emotion dysregulation and well-being. For instance, university students with limited access to effective ER strategies to regulate their positive affect reported significantly lower levels of happiness (Quoidback et al., 2010). Difficulties in engaging in goal directed behaviours and limited access to effective ER strategies to enhance mood when distressed were also found to be the strongest predictors of lower life satisfaction among young and older adults (Saxena et al., 2010). Emerging adults who are unable to regulate their emotions may experience greater intensity and durations of negative emotions, sense of hopelessness, and lower self-efficacy (Dixon-Gordon,

Gratz, Breetz, & Tull, 2013). Such feelings may then contribute to their lower level of subjective happiness and satisfaction with life (Saxena et al., 2010).

With regards to relationship quality, research has shown that the ability to effectively regulate one's emotions is crucial to interpersonal functioning (Eisenberg & Fabes, 1992). People with difficulties in ER may display inappropriate emotional responses and have difficulties managing distress when it arises in social interactions (Cicchetti, Ackerman, & Izard, 1995; Eisenberg & Fabes, 1992; Kim, Pears, Capaldi, & Owen, 2009). Emotion dysregulation may also undermine the quality of relationships through negative communication behaviours, such as fewer displays of positive emotions (Gratz & Roemer, 2004) and more hostility and withdrawal in social interactions (Schulz, Cowan, Pape, & Brennan, 2004). Peers or romantic partners of emerging adults with emotion dysregulation may find it difficult to respond to their counterparts' negative emotions and further reject them (Dixon et al., 2013; Joiner, 1999; Lopes et al., 2005). Future research is needed to investigate the specific ER deficits that are most detrimental to emerging adults' mental health, well-being, and social relationships.

Relative Associations Between ER strategies and Mental Health and Relationship Outcomes

In addition to examining the directions and significance of the associations between different ER components, internalizing symptoms, well-being, and relationship outcomes, the use of SEM allowed for the magnitudes of these significant associations to be compared. Some ER strategies were more strongly associated with internalizing symptoms, well-being, and relationship quality than others. Perspective taking, rumination, and positive reappraisal were the three ER strategies with the largest (albeit still small) effect size on internalizing symptoms. Given the limited research on interpersonal ER and psychopathology, it is unexpected that

perspective taking, an interpersonal ER strategy, appeared to have a greater effect on internalizing symptoms than other intrapersonal ER strategies. The results were consistent with previous research suggesting that overt ER strategies (e.g., seeking advice) predicted fewer depressive symptoms above and beyond covert strategies (e.g., worry and rumination; Aldao & Nolen-Hoeksema, 2013). For rumination and positive reappraisal, the findings were consistent with the results of a meta-analytic review showing that putatively maladaptive intrapersonal ER strategies (e.g., rumination) were more strongly related to psychopathology than putatively adaptive intrapersonal ER strategies (e.g., reappraisal; Aldao & Nolen-Hoeksema, 2010). With the recent recognition of the importance of situational context in influencing which ER strategies may be selected (e.g., Aldao & Nolen-Hoeksema, 2012a), it is also possible that the link between adaptive ER strategies and internalizing symptoms is context-dependent, such that some ER strategies are only adaptive when employed in certain situations (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008).

When examining the relationships between ER strategies and well-being, the effect size for positive reappraisal was medium and the effect sizes for perspective taking, enhancing positive affect, acceptance, and rumination were small. In line with Balzarotti et al. (2016), positive reappraisal appeared to be the strongest predictor of well-being. Positive reappraisal was associated with increased levels of positive affect, personal growth, sense of competence in managing one's environment, ability to maintain positive relationships with others, acceptance of one's good and bad qualities, and purpose in life, which are all significant contributors to positive psychological well-being (Balzarotti et al., 2016). Similar to internalizing symptoms, two interpersonal ER strategies, perspective taking and enhancing positive affect, had a larger effect on well-being than other intrapersonal ER strategies. These findings highlight that the

ability to draw on the support of others to enhance positive emotions and consider alternative perspectives are particularly important for well-being and further reinforce the role of interpersonal ER in emerging adults' adjustment.

With regards to relationship quality, the use of acceptance and positive reappraisal exerted a stronger effect on better relationship quality than other interpersonal ER strategies. Although the above findings indicated many benefits of reaching out to others for ER support, it is important for emerging adults to be able to utilize their own coping resources, such as being able to reappraise an negative event to manage their own emotional states to foster and maintain positive relationship quality with others (Hofmann et al., 2016). Although the effect is small, the use of three interpersonal ER strategies had stronger effects on relationship quality than the use of maladaptive intrapersonal ER strategies. Perhaps just by reaching out to others for ER support, whether for comfort or advice, or to increase ones' positive experience, emerging adults experience the benefit of interpersonal ER, such as increased closeness with others (Marroquín & Nolen-Hoeksema, 2015; Marroquín, Tennen, & Stanton, 2017). It is possible that the use of interpersonal ER strategies is more likely to elicit positive responses from others than the use of maladaptive ER strategies, and thus, fostering more positive social interactions and relationship closeness with others. Because emerging adults are in the process of developing more intimate relationships with their peers, they may also not engage in maladaptive ER (e.g., catastrophizing and self-blame) in these new social contexts, and thus, the impact of these maladaptive ER strategies on relationship quality is minimal in this study.

Limitations and Future Directions

While this study has made a unique contribution to the extant ER literature by exploring the links between both intra- and inter-personal ER processes and emerging adults' internalizing

symptoms, well-being, and relationship quality during a time of significant transition, several limitations of the current study warrant further discussion.

First, this study was cross-sectional in nature; therefore, causal conclusions about the relationships between ER and various psychosocial outcomes cannot be drawn. Future research with longitudinal designs would allow the examination of the long-term consequences of both intra- and inter-personal ER strategy use and ER difficulties (Berking & Wupperman, 2012). Longitudinal studies are also crucial to the understanding of emerging adults' ER development over time, particularly changes in their ER repertoire and flexibility in ER implementation as they gather life experiences and encounter new transitions and relationships (Zimmerman & Iwanski, 2014).

Second, several selection biases may impact the generalizability of the study results to the general population of emerging adults. Although emerging adults with ages ranged from 18 to 29 were recruited, a large portion of the sample was in late teens or early 20s. As people's ER become more effective with growing age, older emerging adults may endorse more adaptive ER strategies and have greater capacity to manage emotional events; thus, may report better mental health and interpersonal functioning than younger emerging adults (Carstensen et al., 2003; Zimmerman & Iwanski, 2014). In the current study, women were also overrepresented compared to men. There is evidence for gender difference in ER strategy use in which research has shown that women reported more frequently using both adaptive and maladaptive ER strategies than men (Nolen-Hoeksema & Aldao, 2011). Women may be more emotionally reactive or more aware of their emotions then men, which may contribute to their greater ER strategy use and greater ER abilities (Nolen-Hoeksema, 2012). Gender differences in ER may also reflect differences in socialization in which women are expected to display greater levels of emotions,

particularly happiness and internalizing negative emotions (e.g., sadness) than men (Brody &

Hall, 2008; Zimmerman & Iwanski, 2014). Men and women may use different ER strategies and

experience different levels of emotion dysregulation, which may further influence the

adaptiveness of their ER repertoire and psychosocial outcomes.

Additionally, the sample consisted of only university students and the results might not

be generalizable to emerging adults not enrolled in postsecondary education. Arnett's (2015)

findings suggest that college students are not representative of all emerging adults, given that

they are more likely to be Caucasian, female, and from families with higher socioeconomic

status. University students (versus non-university students) may encounter different stressful life

events that elicit different emotions than their peers who are not enrolled in college. Furthermore,

serious ER difficulties and poor mental health may prevent some emerging adults from entering

post-secondary education. As such, university students may require different strategies to

regulate emotions, with differential impacts on mental health and well-being compared to their

non-college peers. In addition, the study sample was recruited from a commuter school, where a

large proportion of participants were living at home. The university experiences of this sample of

students living at home are likely to be different from their peers who move out of home. For

instance, students who live away from home will have to learn to take responsibility of their day-

to-day lives, be on their own, and share living spaces with their peers (Arnett, 2016). Compared

to university students living at home, university students who have moved out may utilize

different ER strategies and reach out to different people for ER support as they experience

changes in their living arrangements and social contexts. Researchers can address these selection

biases by including a wider population of emerging adults and utilizing longitudinal designs to

examine age and gender differences in the development of ER and their associations with psychosocial outcomes across emerging adulthood.

Third, self-report measures were used to capture emerging adults' ER strategy use, possibly inviting social desirability bias. Emerging adults may be less likely to report ER strategies that are considered maladaptive, such as self-blame and catastrophizing. Other data collection methods (e.g., physiological measures, direct observations) could be used in conjunction with self-report ER measures to allow for a comprehensive investigation of emerging adults' ER.

Fourth, the current study only explored the links and relative associations between different ER components (i.e., ER strategies and emotion dysregulation) and mental health and relationship outcomes. The interactions between different components of ER and their associations with outcomes are also important to consider to better characterize ER patterns that have an impact on mental health and interpersonal functioning (Dixon-Gordon et al., 2015b). For instance, Hofmann and colleagues (2016) found that greater use of interpersonal ER was associated with higher level of emotion dysregulation, suggesting that people who have difficulties regulating their own emotions may rely on others for ER support. Given access to adaptive ER strategies is one component of emotion dysregulation, intra- and inter-personal ER strategies may contribute to overall emotion dysregulation, which is then linked to internalizing symptoms, well-being, and relationship quality. Greater emotional awareness and clarity, another component of emotion dysregulation may also promote greater use of adaptive ER strategies such as positive reappraisal and perspective taking and contribute to positive development (Dixon-Gordon et al., 2015b). Nonetheless, the current study serves as an initial step in incorporating different ER theoretical models in the study of emerging adults' ER and

psychosocial outcomes. An important next step is to examine how different intra- and inter-personal ER processes interact and the impact of these interactions on emerging adults' ER repertoire and overall development.

Finally, only emerging adults' habitual ER strategy use was studied, and the contexts where ER strategies are typically implemented were not under investigation in the current study. Intra- and inter-personal ER are often studied as a general trait with the assumption that ER strategy use is consistent across contexts (Aldao, 2013). As emerging adults experience heightened emotions, they may employ different ER strategies to manage daily emotions, which may not be adequately captured by measures of people's general tendency to use a specific ER (Arnett 2014; Brans et al., 2013). Ecological momentary assessment (EMA) studies in which participants can repeatedly report their feelings and behaviours in a real-time context is valuable in capturing emerging adults' responses to naturally-occurring events and the impact of their daily ER on psychosocial outcomes (Bylsma & Rottenbery, 2011; Haines et al., 2016). The use of EMA designs would also allow for the examination of individuals' flexibility in implementing different ER strategies across situations (Aldao, Sheppes, & Gross, 2015; Bonanno & Burton, 2013). Additionally, researchers can utilize EMA designs to investigate the social relationships involved in emerging adults' daily interpersonal ER to identify how social relationships serve different ER functions (Cheung et al., 2014).

Study Implications

Given that emerging adulthood is a crucial period for socio-emotional development, promoting ER is one avenue that may have significant impacts on emerging adults' overall adjustment. The current findings have important intervention and prevention implications for clinicians, educators, and university institutions. Considering ER difficulties were the strongest

predictors of more internalizing symptoms, lower well-being, and lower relationship quality among emerging adults, it is important for clinicians to effectively identify and target emerging adults' specific ER difficulties in their interventions. One possible important target for emerging adults may be their ability to access different adaptive ER strategies, as some ER strategies were more strongly associated with positive and negative outcomes than the others.

Furthermore, interventions could focus on educating emerging adults about different ER strategies and the associations between these ER strategies and psychosocial outcomes to increase their capacity to select adaptive ER strategies across contexts. Specifically, clinicians could promote emerging adults' use of positive reappraisal and discourage their use of rumination to manage everyday emotions. It would also be beneficial for clinicians to educate emerging adults the advantages of seeking others for ER support. Resources can be provided to emerging adults to help them identify people in their social contexts who can effectively meet their unique ER needs and how they can respond to other people's ER needs (Cheung et al., 2014).

Additionally, university-based mental health intervention and prevention programs are increasingly recognized as key strategies to promoting healthy development among young people (Mental Health Commission of Canada, 2012; World Health Organization, 1998). Most interventions designed to strengthen young people's ER have been developed for children and adolescents and have shown promising results on their ER and psychosocial adjustment (Durlak et al., 2011; Horn, Pössel, & Hautzinger, 2011). Given that mental health issues among emerging adults are rising and research is showing that a portion of emerging adults are not living a meaningful life (Peter et al., 2011), universities and educators play a key role in providing psychoeducation and mental health services to promote positive development among emerging

adults (Conley et al., 2014). Findings from this study have the potential to inform the development of a university-based ER intervention for emerging adults to foster their adaptive ER (i.e., lower level of emotion dysregulation and greater use of adaptive intra-and inter-personal ER strategies) with the ultimate goal to promote their overall adjustment and interpersonal functioning (Quoidbach & Gross, 2015).

Conclusions

The objective of the current study was to investigate emerging adults' intra- and inter-personal ER strategy use and the links between their ER strategy use and difficulties and three mental health and relationship outcomes (i.e., internalizing symptoms, well-being, and relationship quality) during a time of significant adjustment for emerging adults. The study findings showed that emotion dysregulation was the strongest predictor of emerging adults' more internalizing symptoms, lower well-being, and lower relationship quality. Certain intrapersonal ER strategies (positive reappraisal and rumination) and interpersonal ER strategies (perspective taking and enhancing positive affect) were strongly linked to emerging adults' internalizing symptoms, well-being, and relationship quality. Given the paucity of research on emerging adults' ER, this study contributes as a first step in illustrating that emerging adults have a repertoire of both intra-and inter-personal ER strategies that they use to modify their emotional experiences. Despite the success and fundamental importance of examining intrapersonal process of ER, current findings provide preliminary support for the links between interpersonal ER and internalizing symptoms, well-being, and relationship quality, as well as underscored the importance of examining of both intra-and inter-personal processes for a comprehensive understanding of ER. Furthermore, the present findings indicate that ER is significantly associated with multiple positive and negative psychosocial outcomes, suggesting that ER play a

crucial role in determining emerging adults' positive development. Through understanding the links between different ER components and emerging adults' overall adjustment and functioning, the current findings inform research and clinical work by highlighting ER as an important avenue to optimize emerging adults' mental health and relationships.

References

Adlaf, E. M., Demers, A., & Gliksman, L. (2005). *Canadian Campus Survey 2004*. Retrieved

from http://www.camh.net/research/population_life_course.html

Aldao, A. (2013). The Future of Emotion Regulation Research: Capturing Context. *Perspectives*

on Psychological Science. 8(2): 155-72. https://doi.org/10.1177/1745691612459518

Aldao, A., & Dixon-Gordon, K. L. (2014). Broadening the Scope of Research on Emotion

Regulation Strategies and Psychopathology. *Cognitive Behaviour Therapy*, *43*(1), 22–33.

https://doi.org/10.1080/16506073.2013.816769org/10.1080/16506073.2013.816769

Aldao, A., & Nolen-Hoeksema, S. (2010). Specificity of cognitive emotion regulation strategies:

A transdiagnostic examination. *Behaviour Research and Therapy*, *48*(10), 974–983.

https://doi.org/10.1016/j.brat.2010.06.002

Aldao, A., & Nolen-Hoeksema, S. (2012a). The influence of context on the implementation of

adaptive emotion regulation strategies. *Behaviour Research and Therapy*.

https://doi.org/10.1016/j.brat.2012.04.004

Aldao, A., & Nolen-Hoeksema, S. (2012b). When are adaptive strategies most predictive of

psychopathology? *Journal of Abnormal Psychology*, *121*(1), 276–281.

https://doi.org/10.1037/a0023598

Aldao, A., & Nolen-Hoeksema, S. (2013). One versus many: Capturing the use of multiple

emotion regulation strategies in response to an emotion-eliciting stimulus. *Cognition &*

Emotion, *27*(4), 753–760. https://doi.org/10.1080/02699931.2012.739998

Aldao, A., Gee, D. G., De Los Reyes, A., & Seager, I. (2016). Emotion regulation as a

transdiagnostic factor in the development of internalizing and externalizing

psychopathology: Current and future directions. *Development and Psychopathology*, *28*(4pt1), 927–946. https://doi.org/10.1017/S0954579416000638

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Aldao, A., Sheppes, G., & Gross, J. J. (2015). Emotion Regulation Flexibility. *Cognitive Therapy and Research*, *39*(3), 263–278. https://doi.org/10.1007/s10608-014-9662-4

Anderson, J., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, *103*(3), 411-423. https://doi.org/10.1037/0033-2909.103.3.411

Arnett, J. (2000). Emerging Adulthood: A Theory of Development From the Late Teens Through the Twenties. *The American psychologist* (Vol. 55). https://doi.org/10.1037//0003-066X.55.5.469

Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development, 8*(2), 133-143.

Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties.* New York, NY: Oxford University Press.

Arnett, J. J. (2015). College Students as Emerging Adults: The Developmental Implications of the College Context. *Emerging Adulthood*. https://doi.org/10.1177/2167696815587422

Arnett, J. J., & Tanner, J. L. (Eds.). (2006). *Emerging adults in America: Coming of age in the 21st century*. Washington, DC, US: American Psychological Association. http://dx.doi.org/10.1037/11381-000

Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: Implications for mental health. *The Lancet Psychiatry, 1*(7), 569-576. https://doi: 10.1016/S2215-0366(14)00080-7

Balzarotti, S., Biassoni, F., Villani, D., Prunas, A., & Velotti, P. (2016). Individual Differences in Cognitive Emotion Regulation: Implications for Subjective and Psychological Well-Being. *Journal of Happiness Studies*. https://doi.org/10.1007/s10902-014-9587-3

Barthel, A. L., Hay, A., Doan, S. N., & Hofmann, S. G. (2018). Interpersonal Emotion Regulation: A Review of Social and Developmental Components. *Behaviour Change*, *35*(4), 203–216. https://doi.org/10.1017/bec.2018.19

Beck, A. T., Rush, A., Shaw, B., & Emery, G. (1979). *Cognitive Therapy of Depression.* New York: The Guilford Press.

Bentler, P.M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin, 107* (2), 238-46. http://doi.org/10.1037/0033-2909.107.2.238

Berking, M., & Wupperman, P. (2012). Emotion regulation and mental health. *Current Opinion in Psychiatry*, *25*(2), 128–134. https://doi.org/10.1097/YCO.0b013e3283503669

Berking, M., Wupperman, P., Reichardt, A., Pejic, T., Dippel, A., & Rg Znoj, H. (2008). Emotion-regulation skills as a treatment target in psychotherapy. *Behaviour Research and Therapy. 46*(11), 1230-1237. https://doi.org/10.1016/j.brat.2008.08.005

Bonanno, G. A., & Burton, C. L. (2013). Regulatory Flexibility: An Individual Differences Perspective on Coping and Emotion Regulation. *Perspectives on Psychological Science*, *8*(6), 591–612. https://doi.org/10.1177/1745691613504116

Bonanno, G. A., Papa, A., Lalande, K., Westphal, M., & Coifman, K. (2004). The importance of being flexible: The ability to both enhance and suppress emotional expression predicts

long-term adjustment. *Psychological Science*, *15*(7), 482–487.

https://doi.org/10.1111/j.0956-7976.2004.00705.x

Bowman, N. A. (2010). The Development of Psychological Well-Being Among First-Year

College Students. *Journal of College Student Development*, *51*(2), 180–200.

https://doi.org/10.1353/csd.0.0118

Brans, K., Koval, P., Ku, P. V., Yan, L., Lim, L., & Kuppens, P. (2013). The Regulation of

Negative and Positive Affect in Daily Life. *Emotion, 13*(5): 926-39.

https://doi.org/10.1037/a0032400

Brewer, S. K., Zahniser, E., & Conley, C. S. (2016). Longitudinal impacts of emotion regulation

on emerging adults: Variable- and person-centered approaches. *Journal of Applied*

Developmental Psychology, *47*, 1–12. https://doi.org/10.1016/j.appdev.2016.09.002

Brody, L. R., & Hall, J. A. (2008). Gender and emotion in context. *Handbook of emotions, 3*,

395-408.

Bylsma, L. M., & Rottenberg, J. (2011). Uncovering the Dynamics of Emotion Regulation and

Dysfunction in Daily Life with Ecological Momentary Assessment. In *Emotion*

Regulation and Well-Being (pp. 225–244). New York, NY: Springer New York.

https://doi.org/10.1007/978-1-4419-6953-8_14

Byrne, B. M. (2010). *Structural equation modeling with AMOS: basic concepts, applications,*

and programming (multivariate applications series). New York: United States: Taylor &

Francis Group.

Canadian University Survey Consortium. (2016). 2016 *First-year university student survey.*

Retrieved August 1, 2018, from http://cusc-ccreu.ca/?download=139.

Carstensen, L. L., Fung, H. H., & Charles, S. T. (2003). Socioemotional selectivity theory and the regulation of emotion in the second half of life. *Motivation and Emotion, 27*(2), 103-123. https://doi.org/10.1023/A:1024569803230

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of Personality and Social Psychology*, *56*(2), 267–283.

Cheung, E. O., Gardner, W. L., & Anderson, J. F. (2015). Emotionships: Examining People's Emotion-Regulation Relationships and Their Consequences for Well-Being. *Social Psychological and Personality Science*, *6*(4), 407–414. https://doi.org/10.1177/1948550614564223

Cicchetti, D., Ackerman, B. P., & Izard, C. E. (1995). Emotions and emotion regulation in developmental psychopathology. *Development and Psychopathology*, *7*(1), 1–10. https://doi.org/10.1017/S0954579400006301

Coan, J. A., Beckes, L., Gonzalez, M. Z., Maresh, E. L., Brown, C. L., & Hasselmo, K. (2017). Relationship status and perceived support in the social regulation of neural responses to threat. *Social Cognitive and Affective Neuroscience*, *12*(10), 1574–1583. https://doi.org/10.1093/scan/nsx091

Coan, J.A. (2010). Adult attachment and the brain. *Journal of Social and Personal Relationships. 27,* 210–217. https://doi.org/10.1177/0265407509360900

Cohen, S., Kamarck, T., & Mermelstein, R. (1994). Perceived stress scale. *Measuring stress: A guide for health and social scientists*, 235-283.

Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the Transition to College. *Emerging Adulthood*, *2*(3), 195–210. https://doi.org/10.1177/2167696814521808

de Girolamo, G., Dagani, J., Purcell, R., Cocchi, A., & McGorry, P. D. (2012). Age of onset of mental disorders and use of mental health services: needs, opportunities and obstacles. *Epidemiology and Psychiatric Sciences*, *21*(1), 47–57. https://doi.org/10.1017/S2045796011000746

Demir, M. (2010). Close relationships and happiness among emerging adults. *Journal of Happiness Studies, 11*(3), 293-313. https://doi.org/10.1007/s10902-009-9141-x

Demır, M., & Weitekamp, L. A. (2007). I am so happy 'cause today i found my friend: Friendship and personality as predictors of happiness. *Journal of Happiness Studies*, *8*(2), 181–211. https://doi.org/10.1007/s10902-006-9012-7

Diamantopoulos, A., & Siguaw, J. A. (2000). *Introducing LISREL: A guide for the uninitiated. Journal of the Electrochemical Society, 129*, 171. http://doi.org/10.4135/9781849209359

Dixon-Gordon, K. L., Aldao, A., & De Los Reyes, A. (2015a). Emotion regulation in context: Examining the spontaneous use of strategies across emotional intensity and type of emotion. *Personality and Individual Differences*, *86*, 271–276. https://doi.org/10.1016/j.paid.2015.06.011

Dixon-Gordon, K. L., Bernecker, S. L., & Christensen, K. (2015b). Recent innovations in the field of interpersonal emotion regulation. *Current Opinion in Psychology*, *3*, 36–42. https://doi.org/10.1016/j.copsyc.2015.02.001

Dixon-Gordon, K. L., Gratz, K. L., Breetz, A., & Tull, M. (2013). A laboratory-based examination of responses to social rejection in borderline personality disorder: the

mediating role of emotion dysregulation. *J Pers Disord. 27*(2): 157-71. http://doi.org/
10.1521/pedi.2013.27.2.157.

Dixon-Gordon, K. L., Haliczer, L. A., Conkey, L. C., & Whalen, D. J. (2018). Difficulties in
Interpersonal Emotion Regulation: Initial Development and Validation of a Self-Report
Measure. *Journal of Psychopathology and Behavioral Assessment*, 1–22.
http://doi.org/10.1007/s10862-018-9647-9

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The
impact of enhancing students' social and emotional learning: a meta-analysis of school-
based universal interventions. *Child Development*, *82*(1), 405–432.
https://doi.org/10.1111/j.1467-8624.2010.01564.x

Eaton, W. W., Smith, C., Ybarra, M., Muntaner, C., & Tien, A. (2004). Center for Epidemiologic
Studies Depression Scale: Review and revision (CESD and CESD-R). In M. E. Maruish
(Ed.), *The use of psychological testing for treatment planning and outcomes assessment:
Instruments for adults* (pp. 363-377). Mahwah, NJ, US: Lawrence Erlbaum Associates
Publishers.

Ehring, T., & Quack, D. (2010). Emotion Regulation Difficulties in Trauma Survivors: The Role
of Trauma Type and PTSD Symptom Severity. *Behavior Therapy*, *41*(4), 587–598.
https://doi.org/10.1016/j.beth.2010.04.004

Eisenberg, N., & Fabes, R. A. (1992). Emotion, regulation, and the development of social
competence. In M. S. Clark (Ed.), *Review of personality and social psychology, Vol. 14.
Emotion and social behavior* (pp. 119-150). Thousand Oaks, CA, US: Sage Publications,
Inc.

Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000). Dispositional emotionality and

regulation: their role in predicting quality of social functioning. *Journal of Personality and*

Social Psychology, *78*(1), 136–157. https://doi.org/10.1037//0022-3514.78.1.136

Eisenberg, N., Spinrad, T. L., & Eggum, N. D. (2010). Emotion-related self-regulation and its

relation to children's maladjustment. *Annual Review of Clinical Psychology*, *6*, 495-525.

Eklund, K., Dowdy, E., Jones, C., & Furlong, M. (2010). Applicability of the Dual-Factor Model

of Mental Health for College Students. *Journal of College Student Psychotherapy*, *25*(1),

79–92. https://doi.org/10.1080/87568225.2011.532677

Enders, C., & Bandalos, D. (2001). The Relative Performance of Full Information Maximum

Likelihood Estimation for Missing Data in Structural Equation Models. *Structural Equation*

Modeling: A Multidisciplinary Journal, *8*(3), 430–457.

https://doi.org/10.1207/S15328007SEM0803_5

English, T., & John, O. P. (2012). Understanding the Social Effects of Emotion Regulation: The

mediating role of authenticity for individual differences in suppression. *Emotion, 13*(2):

314-329. https://doi.org/10.1037/a0029847

English, T., Lee, I. A., John, O. P., & Gross, J. J. (2017). Emotion regulation strategy selection in

daily life: The role of social context and goals. *Motivation and Emotion*, *41*(2), 230–242.

http://doi.org/10.1007/s11031-016-9597-z

Fredrickson, B. L. (1998). What Good Are Positive Emotions? *Review of General Psychology:*

Journal of Division 1, of the American Psychological Association, *2*(3), 300–319.

https://doi.org/10.1037/1089-2680.2.3.300

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology. The broaden-and-build theory of positive emotions. *The American Psychologist*, *56*(3), 218–226. http://doi.org/10.1037/0003-066X.56.3.218

Furman, W. & Buhrmester, D. (1985). Children's perception of the personal relationships in their social networks. *Developmental Psychology, 21* (6), 1016-1024. http://doi.org/10.1037/0012-1649.21.6.1016

Furman, W., & Buhrmester, D. (2009). Methods and Measures: The Network of Relationships Inventory: Behavioral Systems Version. *International Journal of Behavioral Development*, *33*(5), 470–478. https://doi.org/10.1177/0165025409342634

Furman, W., & Collins, W. (2009). Adolescent romantic relationships and experiences. In K. H. Rubin, W. M. Bukowski & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 341-360). New York, NY: Guilford Press.

Gable, S. L., & Reis, H. T. (2010). Good news! Capitalizing on positive events in an interpersonal context. *Advances in Experimental Social Psychology*, *42*, 195-257. http://doi.org/10.1016/S0065-2601(10)42004-3

Gable, S. L., Reis, H. T., Impett, E. A., & Asher, E. R. (2004). What Do You Do When Things Go Right? The Intrapersonal and Interpersonal Benefits of Sharing Positive Events. *Journal of Personality and Social Psychology*, *87*(2), 228–245. https://doi.org/10.1037/0022-3514.87.2.228

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences, 30*(8), 1311-1327.http://doi.org/10.1016/S0191-8869(00)00113-6

Garnefski, N., & Kraaij, V. (2006). Relationships between cognitive emotion regulation

strategies and depressive symptoms: A comparative study of five specific samples.

Personality and Individual Differences, 40(8), 1659-1669.

https://doi.org/10.1016/j.paid.2005.12.009

Garnefski, N., & Kraaij, V. (2007a). The Cognitive Emotion Regulation Questionnaire:

Psychometric features and prospective relationships with depression and anxiety in adults.

European Journal of Psychological Assessment, *23*(3), 141–149.

https://doi.org/10.1027/1015-5759.23.3.141

Garnefski, N., Rieffe, C., Jellesma, F., Terwogt, M. M., & Kraaij, V. (2007b). Cognitive emotion

regulation strategies and emotional problems in 9–11-year-old children. *European Child &*

Adolescent Psychiatry, *16*(1), 1–9. https://doi.org/10.1007/s00787-006-0562-3

Garnefski, N., Teerds, J., Kraaij, V., Legerstee, J., & van den Kommer, T. (2004). Cognitive

emotion regulation strategies and depressive symptoms: differences between males and

females. *Personality and Individual Differences*, *36*(2), 267–276.

https://doi.org/10.1016/S0191-8869(03)00083-7

Goldin, P. R., McRae, K., Ramel, W., & Gross, J. J. (2008). The Neural Bases of Emotion

Regulation: Reappraisal and Suppression of Negative Emotion. *Biological Psychiatry*,

63(6), 577–586. https://doi.org/10.1016/j.biopsych.2007.05.031

Gonzaga, G. C., Keltner, D., Londahl, E. A., & Smith, M. D. (2001). Love and the commitment

problem in romantic relations and friendship. *Journal of Personality and Social Psychology*,

81(2), 247–262. http://doi.org/10.1037/0022-3514.81.2.247

Gratz, K. L., & Roemer, L. (2004). Multidimensional Assessment of Emotion Regulation and

Dysregulation: Development, Factor Structure, and Initial Validation of the Difficulties in

Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41–54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Gratz, K. L., Rosenthal, M. Z., Tull, M. T., Lejuez, C. W., & Gunderson, J. G. (2006). An experimental investigation of emotion dysregulation in borderline personality disorder. *Journal of Abnormal Psychology*, *115*(4), 850–855. https://doi.org/10.1037/0021-843X.115.4.850

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271–299.

Gross, J. J. (2013). Emotion regulation: taking stock and moving forward. *Emotion (Washington, D.C.)*, *13*(3), 359–365. https://doi.org/10.1037/a0032135

Gross, J. J. (2015). Emotion Regulation: Current Status and Future Prospects. *Psychological Inquiry*, *26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781

Gross, J. J., & John, O. P. (2003). Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being. *Journal of Personality and Social Psychology*, *85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J.J. Gross (Ed.) *Handbook of emotion regulation* (pp. 3-24). New York, NY: Guilford Press.

Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion Regulation in Everyday Life. In *Emotion regulation in couples and families: Pathways to dysfunction and health.* (pp. 13–35). Washington: American Psychological Association. https://doi.org/10.1037/11468-001

Haines, S. J., Gleeson, J., Kuppens, P., Hollenstein, T., Ciarrochi, J., Labuschagne, I., … Koval, P. (2016). The Wisdom to Know the Difference: Strategy-Situation Fit in Emotion

Regulation in Daily Life Is Associated With Well-Being. *Psychological Science*.

https://doi.org/10.1177/0956797616669086

Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., ... &

Stewart, S. H. (2004). Measuring experiential avoidance: A preliminary test of a working

model. *The psychological record, 54*(4), 553-578. https://doi-org/10.1007/BF03395492

Hofmann, S. G. (2014). Interpersonal emotion regulation model of mood and anxiety

disorders. *Cognitive Therapy and Research*, *38*(5), 483-492.

Hofmann, S. G., & Asmundson, G. J. G. (2008). Acceptance and mindfulness-based therapy:

New wave or old hat? *Clinical Psychology Review*, *28*(1), 1–16.

https://doi.org/10.1016/j.cpr.2007.09.003

Hofmann, S. G., & Doan, S. N. (2018). *The social foundations of emotion: developmental,

cultural, and clinical dimensions*. American Psychological Association.

Hofmann, S. G., Carpenter, J. K., & Curtiss, J. (2016). Interpersonal Emotion Regulation

Questionnaire (IERQ): Scale Development and Psychometric Characteristics. *Cognitive

Therapy and Research*, *40*(3), 341–356. https://doi.org/10.1007/s10608-016-9756-2

Hooper, D., Couglan, J., & Mullen, M. R. (2008). Structural equation modelling: guidelines for

determining model fit, *Electronic Journal on Business Research Methods, 6*(1), 53-60.

Horn, A. B., Pössel, P., & Hautzinger, M. (2011). Promoting Adaptive Emotion Regulation and

Coping in Adolescence. *Journal of Health Psychology*, *16*(2), 258–273.

https://doi.org/10.1177/1359105310372814

Hoyle, R. H. (Ed.). (2012). *Handbook of structural equation modeling*. Guilford press.

http://doi.org/10.1.1.25.781

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Joiner, T. E. (1999). A test of interpersonal theory of depression in youth psychiatric inpatients. *Journal of Abnormal Child Psychology*, *27*(1), 77–85. https://doi.org./10.1023/A:1022666424731

Jose, P. E., Lim, B. T., & Bryant, F. B. (2012). Does savoring increase happiness? A daily diary study. *The Journal of Positive Psychology*, *7*(3), 176–187. https://doi.org/10.1080/17439760.2012.67134

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 207-222. http://doi.org/10.2307/3090197

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73*, 539-548. http://doi.org/10.1037/0022-006X.73.3.539

Keyes, C. L. M., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The Relationship of Level of Positive Mental Health With Current Mental Disorders in Predicting Suicidal Behavior and Academic Impairment in College Students. *Journal of American College Health*, *60*(2), 126–133. https://doi.org/10.1080/07448481.2011.608393

Kim, H. K., Pears, K. C., Capaldi, D. M., & Owen, L. D. (2009). Emotion dysregulation in the intergenerational transmission of romantic relationship conflict. *Journal of Family Psychology : JFP : Journal of the Division of Family Psychology of the American*

Psychological Association (Division 43), *23*(4), 585–595.

https://doi.org/10.1037/a0015935

King, K. A., Vidourek, R. A., Merianos, A. L., & Singh, M. (2014). A study of stress, social

support, and perceived happiness among college students. *The Journal of Happiness and*

Well-Being. 2(2), 132-144.

Kline, R. (2011). Principles and practice of structural equation modeling, (2nd ed.). New York:

The Guilford Press.

Lakey, B., & Orehek, E. (2011). Relational Regulation Theory: A New Approach to Explain the

Link Between Perceived Social Support and Mental Health. *Psychological Review*, *118*(3),

482–495. https://doi.org/10.1037/a0023477

Lane, J. (2015). *Counseling Emerging Adults in Transition: Practical Applications of Attachment*

and Social Support Research. *The Professional Counselor* (Vol. 5).

https://doi.org/10.15241/jal.5.1.15

Lane, J., Leibert, T., & Goka-Dubose, E. (2017). *The Impact of Life Transition on Emerging*

Adult Attachment, Social Support, and Well-Being: A Multiple-Group Comparison. *Journal*

of Counseling & Development (Vol. 95). https://doi.org/10.1002/jcad.12153

Langston, C. A. (1994). Capitalizing on and coping with daily-life events: Expressive responses

to positive events. *Journal of Personality and Social Psychology*, *67*(6), 1112–1125.

https://doi.org/10.1037/0022-3514.67.6.1112

Lei, P-W., & Wu, Q. (2012). Estimation in structural equation modeling. In R. H. Hoyle (Ed.),

Handbook of structural equation modeling (pp. 164–179). New York, NY: Guilford Press

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion

and reactions to unpleasant self-relevant events: The implications of treating oneself

kindly. *Journal of Personality and Social Psychology, 92*(5), 887-904.

http://dx.doi.org/10.1037/0022-3514.92.5.887

Lepore, S. J., Fernandez-Berrocal, P., Ragan, J., & Ramos, N. (2004). It's not that bad: Social

challenges to emotional disclosure enhance adjustment to stress. *Anxiety, Stress and*

Coping, *17*(4), 341–361. https://doi.org/10.1080/10615800412331318625

Little, R. J. A. (1988). A Test of Missing Completely at Random for Multivariate Data with

Missing Values. *Journal of the American Statistical Association*, *83*(404), 1198–1202.

https://doi.org/10.1080/01621459.1988.10478722

Lopes, P. N., Nezlek, J. B., Extremera, N., Hertel, J., Fernández-Berrocal, P., Schütz, A., &

Salovey, P. (2011). Emotion Regulation and the Quality of Social Interaction: Does the

Ability to Evaluate Emotional Situations and Identify Effective Responses Matter? *The*

Authors Journal of Personality, *79*(2). https://doi.org/10.1111/j.1467-6494.2010.00689.x

Lopes, P. N., Salovey, P., & Straus, R. (2003). Emotional intelligence, personality, and the

perceived quality of social relationships. *Personality and Individual Differences*, *35*(3),

641–658. https://doi.org/10.1016/S0191-8869(02)00242-8

Lopes, P. N., Salovey, P., Côté, S., & Beers, M. (2005). Emotion Regulation Abilities and the

Quality of Social Interaction. *Emotion*, *5*(1), 113–118. https://doi.org/10.1037/1528-

3542.5.1.113

Lopez, D. F. G., Chervinko, S., Strom, T., Kinney, J., & Bradley, M. (2005). What does it mean

to be an adult?: A Qualitative study of college students' perceptions and coping

processes. *Journal of College and Character*, *6*(4), 1-31.

Luginbuehl, T., & Schoebi, D. (2019). Emotion dynamics and responsiveness in intimate

relationships. *Emotion*. https://doi.org/10.1037/emo0000540

Lyubomirsky, S., King, L., & Diener, E. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success?. *Psychological Bulletin, 131*(6): 803-855. https://doi.org/10.1037/0033-2909.131.6.803

Lyubomirsky, S., & Lepper, H. S. (1999). *A measure of subjective happiness: Preliminary reliability and construct validation. Social Indicators Research, 46*(2), 137-155.

MacCallum, R.C., Browne, M.W., and Sugawara, H., M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychological Methods, 1* (2), 130-49. http://doi.org/10.1037/1082-989X.1.2.130

Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. Biometrika, 57(3), 519-530.

Marteau, T. M., & Bekker, H. (1992). The development of a six-item short-form of the state scale of the Spielberger State-Trait Anxiety Inventory (STAI). *British Journal of Clinical Psychology*, *31*(3), 301–306. https://doi.org/10.1111/j.2044-8260.1992.tb00997.x

Martin, R. C., & Dahlen, E. R. (2005). Cognitive emotion regulation in the prediction of depression, anxiety, stress, and anger. *Personality and individual differences, 39*(7), 1249-1260. https://doi.org/10.1016/j.paid.2005.06.004

Marroquín, B., & Nolen-Hoeksema, S. (2015). Emotion regulation and depressive symptoms: Close relationships as social context and influence. *Journal of Personality and Social Psychology*, *109*(5), 836–855. https://doi.org/10.1037/pspi0000034

Marroquín, B., Tennen, H., & Stanton, A. L. (2017). Coping, Emotion Regulation, and Well-Being: Intrapersonal and Interpersonal Processes. In M. D. Robinson & M. Eid (Eds.), *The Happy Mind: Cognitive Contributions to Well-Being* (pp. 253–274). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-58763-9_14

McLaughlin, K. A., Hatzenbuehler, M. L., Mennin, D. S., & Nolen-Hoeksema, S. (2011).

Emotion dysregulation and adolescent psychopathology: A prospective study. *Behaviour Research and Therapy*, *49*(9), 544–554. https://doi.org/10.1016/j.brat.2011.06.003

Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2005). Preliminary evidence for an emotion dysregulation model of generalized anxiety disorder. *Behaviour Research and Therapy*, *43*(10), 1281–1310. https://doi.org/10.1016/j.brat.2004.08.008

Mennin, D. S., Holaway, R. M., Fresco, D. M., Moore, M. T., & Heimberg, R. G. (2007). Delineating Components of Emotion and its Dysregulation in Anxiety and Mood Psychopathology. *Behavior Therapy*, *38*(3), 284–302. https://doi.org/10.1016/j.beth.2006.09.001

Mental Health Commission of Canada (May, 2012). Changing directions, changing lives: The mental health strategy for Canada. Retrieved from https://www.mentalhealthcommission.ca/sites/default/files/MHStrategy_Strategy_ENG.pdf.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.

Min, J.-A., Yu, J. J., Lee, C.-U., & Chae, J.-H. (2013). Cognitive emotion regulation strategies contributing to resilience in patients with depression and/or anxiety disorders. *Comprehensive Psychiatry*, *54*(8), 1190–1197. https://doi.org/10.1016/j.comppsych.2013.05.008

Muthen, L. K., & Muthen, B. O. (1998/2012). Mplus user's guide (7th ed.). Los Angeles, CA: Muthen & Muthen.

Naragon-Gainey, K., McMahon, T. P., & Chacko, T. P. (2017). The structure of common

emotion regulation strategies: A meta-analytic examination. *Psychological Bulletin, 143*(4),

384. http://doi.org/10.1037/bul0000093.

Neff, K. (2003). Self-Compassion: An Alternative Conceptualization of a Healthy Attitude

Toward Oneself. *Self and Identity*, *2*(2), 85–101. https://doi.org/10.1080/15298860309032

Nezlek, J. B., & Kuppens, P. (2008). Regulating Positive and Negative Emotions in Daily Life.

Journal of Personality, *76*(3), 561–580. https://doi.org/10.1111/j.1467-6494.2008.00496.x

Nils, F., & Rimé, B. (2012). Beyond the myth of venting: Social sharing modes determine the

benefits of emotional disclosure. *European Journal of Social Psychology*, *42*(6), 672-681.

Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: The role of gender.

Annual Review of Clinical Psychology, 8, 161-187. http://doi.org/10.1146/annurev-clinpsy-

032511-143109.

Nolen-Hoeksema, S., & Aldao, A. (2011). Gender and age differences in emotion regulation

strategies and their relationship to depressive symptoms. *Personality and Individual

Differences, 51*(6), 704-708. http://doi.org /10.1016/j.paid.2011.06.012

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking Rumination.

Perspectives on Psychological Science, *3*(5), 400–424. https://doi.org/10.1111/j.1745-

6924.2008.00088.x

North, R. J., Pai, A. V., Hixon, J. G., & Holahan, C. J. (2011). Finding happiness in negative

emotions: An experimental test of a novel expressive writing paradigm. *The Journal of

Positive Psychology*, *6*(3), 192–203. https://doi.org/10.1080/17439760.2011.570365

O'Bryan, E. M., McLeish, A. C., Kraemer, K. M., & Fleming, J. B. (2015). Emotion regulation

difficulties and posttraumatic stress disorder symptom cluster severity among trauma-

exposed college students. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(2), 131–137. https://doi.org/10.1037/a0037764

O'Connor, M., Sanson, A., Hawkins, M. T., Letcher, P., Toumbourou, J. W., Smart, D., ... & Olsson, C. A. (2011). Predictors of positive development in emerging adulthood. *Journal of Youth and Adolescence*, *40*(7), 860-874. http://doi.org/10.1007/s10964-010-9593-7

Ontario University and College Health Association. (2017, April). *Supporting the Mental Health of Emerging Adults in Ontario's Post-Secondary System*. Retrieved November 6, 2017, from http://oucha.ca/pdf/mental_health/Oucha-Paper-April-2017.pdf

Organisation for Economic Co-operation (2017, September 12). *Education at a Glance: OECD Indicators*. Retrieved from http://www.keepeek.com/Digital-Asset-Management/oecd/education/education-at-a-glance-2017_eag-2017-en#.WihVD7T8198

Park, C. L., Edmondson, D., & Lee, J. (2012). Development of Self-regulation Abilities as Predictors of Psychological Adjustment Across the First Year of College. *Journal of Adult Development*, *19*(1), 40–49. https://doi.org/10.1007/s10804-011-9133-z

Peter, T., Roberts, L. W., & Dengate, J. (2011). Flourishing in life: An empirical test of the dual continua model of mental health and mental illness among Canadian university students. *International Journal of Mental Health Promotion, 13*, 13-22. https://doi.org/10.1080/14623730.2011.9715646

Quoidbach, J., J Gross, J., & Mikolajczak, M. (2015). *Positive Interventions: An Emotion Regulation Perspective. Psychological Bulletin, 141*(3), 655-693. https://doi.org/10.1037/a0038648

Quoidbach, J., Berry, E. V., Hansenne, M., & Mikolajczak, M. (2010). Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening

strategies. *Personality and Individual Differences*, *49*(5), 368–373.

    https://doi.org/10.1016/j.paid.2010.03.048

Radloff, L. S. (1977). The CES-D Scale. *Applied Psychological Measurement*, *1*(3), 385–401.

    https://doi.org/10.1177/014662167700100306

Rawana, J. S., Flett, G. L., McPhie, M. L., Nguyen, H. T., & Norwood, S. J. (2014).

    Developmental Trends in Emotion Regulation: A Systematic Review with Implications for

    Community Mental Health. *Canadian Journal of Community Mental Health*, *33*(1), 31–44.

    https://doi.org/10.7870/cjcmh-2014-004

Ridner, S. L. (2005). Predicting Smoking Status in a College-Age Population. *Public Health*

    Nursing, *22*(6), 494–505. https://doi.org/10.1111/j.0737-1209.2005.220605.x

Rimé, B. (2009). Emotion elicits the social sharing of emotion: Theory and Empirical Review.

    Emotion Review, *1*(1), 60–85. https://doi.org/10.1177/1754073908097189

Reis, H. T., Smith, S. M., Carmichael, C. L., Caprariello, P. A., Tsai, F.-F., Rodrigues, A., &

    Maniaci, M. R. (2010). Are You Happy for Me? How Sharing Positive Events With

    Others Provides Personal and Interpersonal Benefits. *Journal of Personality and Social*

    Psychology, 99(2), 311. https://doi.org/10.1037/a0018344

Roberti, J. W., Harrington, L. N., & Storch, E. A. (2006). Further Psychometric Support for the

    10-Item Version of the Perceived Stress Scale. *Journal of College Counseling*, *9*(2), 135–

    147. https://doi.org/10.1002/j.2161-1882.2006.tb00100.x

Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and Emerging

    Developmental Tasks in the Transition to Adulthood. *Child Development*, *75*(1), 123–

    133. https://doi.org/10.1111/j.1467-8624.2004.00658.x

Salters-Pedneault, K., Roemer, L., Tull, M. T., Rucker, L., & Mennin, D. S. (2006). Evidence of broad deficits in emotion regulation associated with chronic worry and generalized anxiety disorder. *Cognitive Therapy and Research*, *30*(4), 469–480. https://doi.org/10.1007/s10608-006-9055-4

Sameroff, A. (2010). A unified theory of development: a dialectic integration of nature and nurture. *Child Development, 81,* 6–22. https://doi.org/10.1111/j.1467-8624.2009.01378.x

Savalei, V., & Bentler, P. M. (2010). A two-stage approach to missing data: Theory and application to auxiliary variables. *Structural Equation Modeling: A Multidisciplinary Journal*, *17*(4), 714–714. https://doi.org/10.1080/10705511.2010.525124

Saxena, P., Dubey, A., & Pandey, R. (2011). Role of emotion regulation difficulties in predicting mental health and well-being. *SIS Journal of Projective Psychology & Mental Health*, *18*, 147–155.

Schafer, J. L. (1997). Analysis of incomplete multivariate data. London: Chapman & Hall

Schiffrin, H. H., & Nelson, S. K. (2010). Stressed and Happy? Investigating the Relationship Between Happiness and Perceived Stress. Journal of Happiness Studies, 11(1), 33–39. https://doi.org/10.1007/s10902-008-9104-7

Schulz, M. S., Cowan, P. A., Pape C, C., & Brennan, R. T. (2004). Coming Home Upset: Gender, Marital Satisfaction, and the Daily Spillover of Workday Experience Into Couple Interactions. *Journal of Family Psychology*, *18*(1), 250–263. https://doi.org/10.1037/0893-3200.18.1.250

Schulenberg, J. E., Sameroff, A. J., & Cicchetti, D. (2004). The transition to adulthood as a critical juncture in the course of psychopathology and mental health. *Development and Psychopathology*, *16*(4), 799-806.

Shallcross, A. J., Troy, A. S., Boland, M., & Mauss, I. B. (2010). Let it be: Accepting negative emotional experiences predicts decreased negative affect and depressive symptoms. *Behaviour Research and Therapy*, *48*(9), 921–929. https://doi.org/10.1016/j.brat.2010.05.025

Shoda, Y., Mischel, W., & Peake, P. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology, 26*(6), 978–986.

Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' Emotion Regulation in Daily Life: Links to Depressive Symptoms and Problem Behavior. *Child Development*, *74*(6), 1869–1880. https://doi.org/10.1046/j.1467-8624.2003.00643.x

Sloan, E., Hall, K., Moulding, R., Bryce, S., Mildred, H., & Staiger, P. K. (2017). Emotion regulation as a transdiagnostic treatment construct across anxiety, depression, substance, eating and borderline personality disorders: A systematic review. *Clinical Psychology Review*, *57*, 141–163. https://doi.org/10.1016/j.cpr.2017.09.002

Srivastava, S., Tamir, M., McGonigal, K. M., John, O. P., & Gross, J. J. (2009). The social costs of emotional suppression: A prospective study of the transition to college. *Journal of Personality and Social Psychology*, *96*(4), 883–897. http://doi.org/10.1037/a0014755

Steiger, J.H. (1990). Structural model evaluation and modification. *Multivariate Behavioral Research, 25*, 214-12.

Steiger, J.H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences, 42* (5), 893-98.

Suhr, D. (2006). The basics of structural equation modeling. In Western Users of SAS Software

    (pp. 1–19). Irvine, CA. Retrieved from

    http://jansenlex.readyhosting.com/wuss/2006/tutorials/TUT-Suhr.pdf

Thompson, R. A. (1994). Emotion Regulation: A Theme in Search of Definition. *Monographs of*

    the Society for Research in Child Development, *59*(2/3), 25.

    https://doi.org/10.2307/1166137

Topham, P., & Moller, N. (2011). New students' psychological well-being and its relation to first

    year academic performance in a UK university. *Counselling and Psychotherapy Research*,

    11(3), 196–203. https://doi.org/10.1080/14733145.2010.519043

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor

    analysis. *Psychometrika*, *38*(1), 1–10. http://doi.org/10.1007/BF02291170

Tull, M., & Aldao, A. (2015). New directions in the science of emotion regulation. *Current*

    Opinion in Psychology, *3*(March), 4–10. https://doi.org/10.1016/j.copsyc.2015.03.009

Turk, C. L., Heimberg, R. G., Luterek, J. A., Mennin, D. S., & Fresco, D. M. (2005). Emotion

    Dysregulation in Generalized Anxiety Disorder: A Comparison with Social Anxiety

    Disorder. *Cognitive Therapy and Research*, *29*(1), 89–106. https://doi.org/10.1007/s10608-

    005-1651-1

Ullman, J. B., & Bentler, P. M. (2012). Structural Equation Modeling. In *Handbook of*

    Psychology, Second Edition. Hoboken, NJ, USA: John Wiley & Sons, Inc.

    https://doi.org/10.1002/9781118133880.hop202023

Van Dam, N. T., & Earleywine, M. (2011). Validation of the Center for Epidemiologic Studies

    Depression Scale—Revised (CESD-R): Pragmatic depression assessment in the general

population. *Psychiatry Research*, *186*(1), 128–132.

https://doi.org/10.1016/j.psychres.2010.08.018

Weiss, D., Freund, A. M., & Wiese, B. S. (2012). Mastering developmental transitions in young and middle adulthood: The interplay of openness to experience and traditional gender ideology on women's self-efficacy and subjective well-being. *Developmental Psychology*, *48*(6), 1774–1784. https://doi.org/10.1037/a0028893

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56-75). Thousand Oaks, CA, US: Sage Publications, Inc.

Weston, R., & Gore, P. A. (2006). A Brief Guide to Structural Equation Modeling. *The Counseling Psychologist*, *34*(5), 719–751. https://doi.org/10.1177/0011000006286345

Williams, W. C., Morelli, S. A., Ong, D. C., & Zaki, J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspi0000132

Winzer, R., Lindblad, F., Sorjonen, K., & Lindberg, L. (2014). Positive versus negative mental health in emerging adulthood: a national cross-sectional survey. *BMC Public Health*, *14*(1), 1238. https://doi.org/10.1186/1471-2458-14-1238

World Health Organization, Division of Mental Health (1994). Mental health programmes in schools. WHO/MNH/93.3 Rev.1.

Yuan, K.-H., Chan, W., & Bentler, P. M. (2000). Robust transformation with applications to structural equation modelling. *British Journal of Mathematical and Statistical Psychology*, *53*(1), 31–50. https://doi.org/10.1348/000711000159169

Zainol, Z. (2016). Structural equation modeling (SEM): A step by step approach (PART 1). https://doi.org/10.13140/RG.2.1.1238.6809

Zaki, J., & Williams, W. C. (2013). Interpersonal emotion regulation. *Emotion, 13*(5), 803. http://doi.org/10.1037/a0033839

Zech, E., Rimé, B., & Pennebaker, J. W. (2007). The effects of emotional disclosure during bereavement. *The Scope of Social Psychology: Theory and Applications: Essays in Honour of Wolfgang Stroebe*, 277.

Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development*. https://doi.org/10.1177/0165025413515405

Appendix A

PSYC 1010 Consent Form

Study Name: How Managing Emotions Affects University Student Well-being

Researchers: Dr. Jennine S. Rawana, 131 BSB   rawana@yorku.ca
Rivka Levin   133D BSB   rivka@yorku.ca
Samantha Chan   133D BSB   sachan@yorku.ca

Purpose of the Research: The purpose of this study is to better understand how we manage our emotions and how this relates to other aspects of the lives of university students.

What You Will Be Asked to Do in the Research: This study consists of an online survey asking you about a broad range of behaviours and emotions encountered in university. For example, the survey will ask questions about your emotions, how you manage your emotions and, any feelings of low mood. Some demographic information is also collected. It will take approximately 30 minutes to complete the survey. You will be eligible to receive 0.5 PSYC 1010 course credit

Risks and Discomforts: There are no serious anticipated risks involved with completing the survey. Some people may become uncomfortable or distressed while completing some questions related to feelings of sadness or other questions. If you do become distressed, please contact the Counselling & Development Centre at York University (Phone: 416-736-5297; Location: N110 Bennett Centre for Student Services). At the end of the survey, you will also be given a list of other local counselling resources.

Benefits of the Research and Benefits to You: You may or may not benefit directly from this research. Benefits of participating in the study are an added percentage to your PSYC 1010 grade, gaining experience in psychology research, and helping us better understand what contributes to the well-being of university students.

Voluntary Participation and Withdrawal: Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer particular questions will not influence the nature of the ongoing relationship you may have the researchers, York University, or any group associated with this research either now, or in the future. If you stop participating, you will still be eligible to receive the promised pay/compensation for agreeing to be in the project. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality: All responses to these questions will be kept anonymous and confidential by the researchers. Data will be stored online on a secured website and will be transferred to Dr. Jennine Rawana's secure research server. Data files will be password protected. Data will be stored electronically for seven years, at which point the data will be destroyed. Data files without identifying information may be kept indefinitely at York University. **Confidentiality will be provided to the fullest extent possible by law.** Your name will not be linked with your answers and only research staff will have access to the data.

Questions About the Research? If you have questions about the research in general or about your role in the study, please feel free to contact REACh Lab (reach@yorku.ca) or Dr. Jennine Rawana either by

telephone at 416-736-2100 ext. 20771 or by e-mail (rawana@yorku.ca). This research has received ethics review and approval by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Please select below that you "agree" or "disagree" to participate in this study. By selecting "agree" and continuing to complete this survey online, you are providing your consent to participate in this study and indicating you have read this Consent Form. Thank you.

Response Options:
I agree **O** or disagree **O** to participate in the Survey component of the study.

Appendix B

Debriefing Information for Research Participants

We would like to thank you for completing our **survey** study on feelings and behaviours experienced while attending university. The questions that you have answered pertaining to feelings and coping will help us identify some common problems and strengths experienced in undergraduates. Some of the questions in this survey may have made you feel uncomfortable or distressed. If you are or anyone you know is feeling depressed or psychologically distressed, there is help available. Below is contact information for some helpful services if you are feeling psychologically depressed or distressed.

Before we end this study, we would like to ask you not to talk about this study with anyone. There are many other people who have not participated in this study yet. If they hear from you or others about what the study is about, it may influence their responses. Our results may not be accurate. We hope that you will cooperate with us in this regard. Questions related to this study can be sent to reach@yorku.ca.

If you would like to learn more about emotion regulation, please read the following articles:

Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion regulation in everyday life. In D. K. Snyder, J. Simpson & J. N. Hughes (Eds.), Emotion regulation in couples and families: Pathways to dysfunction and health (pp. 13-35). Washington, DC: American Psychological Association. http://media.rickhanson.net/Papers/EmotRegDaily Life.pdf

Rawana, J. S., Flett, G. L., McPhie, M. L., Nguyen, H. T., & Norwood, S. J. (2014). Developmental trends in emotion regulation: A systematic review with implications for community mental health. *Canadian Journal of Community Mental Health, 33*, 31-44. http://ezproxy.library.yorku.ca/login?url=http://search.proquest.com/docview/1606064480?accountid=15182

Thank you.

Other Counselling Services in the GTA:

1. Toronto Psychological Services 416-531-0727 www.toronto-ps.com
2. Distress Centre of Toronto 416-408-4357 (HELP)
3. Help Line for All Youth HEYY 416-423-4399 (HEYY)
4. **Good 2 Talk (for post-secondary students)** 1-866-925-5454 http://www.good2talk.ca/
5. York University – Personal Counselling Services (PCS). Located in Counselling & Disability Services (CDS) in N110 Bennett Centre for Student Services, and can also be reached by phone at 416-736-5297 or http://pcs.info.yorku.ca/in-case-of-crisis/
6. The Freedom from Fear Foundation in Toronto is an organization established to help people with anxiety disorders. They have a network of support groups set up throughout Ontario 416-761-6006
7. Drug & Alcohol Registry of Treatment (DART)/Treatment info-line 1-800-565-8603

8. The National Eating Disorder Information Centre has a national register of private therapists, medical programs, and information 416-340-4156

9. Mood Disorders Association of Ontario 416-486-8046 OR call TOLL-FREE at 1-888-486-8236

10. A.C.C.E.S. (Accessible Community Counselling and Employment Services) Toronto: 416-921-1800 Scarborough: 416-431-5326 Mississauga: 905-361-2522

11. Family Services Association of Toronto 416-595-9230

12. For a list of more health, social, community, and/or government community resources/services, you can access it via www.211toronto.ca or you can dial 2-1-1 in Toronto 24 hours a day. This phone number is free, confidential, and the trained staff is multilingual.

Appendix C

Demographics

What is your birth date? (e.g., January 1, 2006 = 01/06/2006) ____/_____/_____

Please indicate your sex (Check one) ☐ Male   ☐ Female   ☐ Intersex ☐ I prefer not to answer

Please indicate your identified gender (Check one) ☐ Male   ☐ Female   ☐ Other. Please specify:_____ ☐ I prefer not to answer

What year of undergraduate studies are you in?
☐ 1st year
☐ 2nd year
☐ 3rd year
☐ 4th year
☐ Other. Please specify: _____

Where do you live?
☐ Parents/guardians home
☐ Residence
☐ Off campus
☐ Other. Please specify: _

Please indicate your ethnicity (Check one)
☐ White/Caucasian
☐ Black
☐ Asian (e.g., China, Japan, etc)
☐ Indigenous
☐ Middle Eastern
☐ South-Asian (e.g., India, Pakistan, etc)
☐ West Indies (e.g., Trinidad and Tobago, Guyana, etc)
☐ Hispanic
☐ Other: _____
☐ I prefer not to answer

Were you born in Canada? (check one)   ☐ YES   ☐ NO

    If "NO":   A) How long have you lived in Canada? __ (years)

      B) What country were you born in? __

Which of the following best describes your current relationship status?
☐   Not dating
☐   Dating several people

☐   Dating one person exclusively
☐   Engaged
☐   Married
☐   Married but separated
☐   Divorced
☐   Widowed

How long have you been dating/in a relationship? _____ (please specify in weeks)

Appendix D

The Cognitive Emotion Regulation Questionnaire

Everyone gets confronted with **negative or unpleasant experiences** and everyone responds to them in his or her own way. By the following questions, you are asked to indicate what you generally think, when you experience negative or unpleasant events. Please read the sentences below and indicate how often you have the following thoughts by circling the most suitable answer.

	Almost Never	Sometimes	Regularly	Often	Almost Always
I think that I have to accept that this has happened	O	O	O	O	O
I often think about how I feel about what I have experienced	O	O	O	O	O
I think I can learn something from the situation	O	O	O	O	O
I often think that what I have experienced is much worse than what others have experienced	O	O	O	O	O
I think that I have to accept the situation	O	O	O	O	O
I am preoccupied with what I think and feel about what I have experienced	O	O	O	O	O
I think that I can become a stronger person as a result of what has happened	O	O	O	O	O
I keep thinking about how terrible it is what I have experienced	O	O	O	O	O
I think that I cannot change anything about it	O	O	O	O	O

I want to understand why I feel the way I do about what I have experienced	O	O	O	O	O
I think that the situation also has its positive sides	O	O	O	O	O
I often think that what I have experienced is the worst that can happen to a person	O	O	O	O	O
I think that I must learn to live with it	O	O	O	O	O
I dwell upon the feelings the situation has evoked in me	O	O	O	O	O
I look for the positive sides to the matter	O	O	O	O	O
I continually think how horrible the situation has been	O	O	O	O	O

Appendix E

Interpersonal Emotion Regulation Questionnaire (IERQ)

Below is a list of statements that describe how people use others to regulate their emotions. Please read each statement and then circle the number next to it to indicate how much this is true for you by using a scale from 1 (not true for me at all) to 5 (extremely true for me). Please do this for each statement. There are no right or wrong answers.

1------------------------2----------------------3--------------------4-----------------------5
not true for me at all   a little bit   moderately   quite a bit   extremely true
for me

1. It makes me feel better to learn how others dealt with their emotions.	1—2—3—4—5
2. It helps me deal with my depressed mood when others point out that things aren't as bad as they seem.	1—2—3—4—5
3. I like being around others when I'm excited to share my joy.	1—2—3—4—5
4. I look for other people to offer me compassion when I'm upset.	1—2—3—4—5
5. Hearing another person's thoughts on how to handle things helps me when I am worried.	1—2—3—4—5
6. Being in the presence of certain other people feels good when I'm elated.	1—2—3—4—5
7. Having people remind me that others are worse off helps me when I'm upset.	1—2—3—4—5
8. I like being in the presence of others when I feel positive because it magnifies the good feeling.	1—2—3—4—5
9. Feeling upset often causes me to seek out others who will express sympathy.	1—2—3—4—5
10. When I am upset, others make me feel better by making me realize that things could be a lot worse.	1—2—3—4—5
11. Seeing how others would handle the same situation helps me when I am frustrated.	1—2—3—4—5
12. I look to others for comfort when I feel upset.	1—2—3—4—5
13. Because happiness is contagious, I seek out other people when I'm happy.	1—2—3—4—5
14. When I am annoyed, others can soothe me by telling me not to worry.	1—2—3—4—5
15. When I'm sad, it helps me to hear how others have dealt with similar feelings.	1—2—3—4—5
16. I look to other people when I feel depressed just to know that I am loved.	1—2—3—4—5
17. Having people telling me not to worry can calm me down when I am anxious.	1—2—3—4—5
18. When I feel elated, I seek out other people to make them happy.	1—2—3—4—5
19. When I feel sad, I seek out others for consolation.	1—2—3—4—5
20. If I'm upset, I like knowing what other people would do if they were in my situation.	1—2—3—4—5

Appendix F

Difficulties in Emotion Regulation Scale (DERS)

Please indicate how often the following statements apply to you by recording the appropriate number from the scale below on the line beside each item.

1------------------------------2------------------------------3------------------------------4--------------------------------5

almost never   sometimes   about half the time   most of the time   almost always
   (0-10%)   (11-35%)   (36-65%)   (66-90%)   (91-100%)

_____ 1) I am clear about my feelings.
_____ 2) I pay attention to how I feel.
_____ 3) I experience my emotions as overwhelming and out of control.
_____ 4) I have no idea how I am feeling.
_____ 5) I have difficulty making sense out of my feelings.
_____ 6) I am attentive to my feelings.
_____ 7) I know exactly how I am feeling.
_____ 8) I care about what I am feeling.
_____ 9) I am confused about how I feel.
_____ 10) When I'm upset, I acknowledge my emotions.
_____ 11) When I'm upset, I become angry with myself for feeling that way.
_____ 12) When I'm upset, I become embarrassed for feeling that way.
_____ 13) When I'm upset, I have difficulty getting work done.
_____ 14) When I'm upset, I become out of control.
_____ 15) When I'm upset, I believe that I will remain that way for a long time.
_____ 16) When I'm upset, I believe that I will end up feeling very depressed.
_____ 17) When I'm upset, I believe that my feelings are valid and important.
_____ 18) When I'm upset, I have difficulty focusing on other things.
_____ 19) When I'm upset, I feel out of control.
_____ 20) When I'm upset, I can still get things done.
_____ 21) When I'm upset, I feel ashamed at myself for feeling that way.
_____ 22) When I'm upset, I know that I can find a way to eventually feel better.
_____ 23) When I'm upset, I feel like I am weak.
_____ 24) When I'm upset, I feel like I can remain in control of my behaviours.
_____ 25) When I'm upset, I feel guilty for feeling that way.
_____ 26) When I'm upset, I have difficulty concentrating.
_____ 27) When I'm upset, I have difficulty controlling my behaviours.
_____ 28) When I'm upset, I believe there is nothing I can do to make myself feel better.
_____ 29) When I'm upset, I become irritated at myself for feeling that way.
_____ 30) When I'm upset, I start to feel very bad about myself.
_____ 31) When I'm upset, I believe that wallowing in it is all I can do.

_____ 32) When I'm upset, I lose control over my behaviour.
_____ 33) When I'm upset, I have difficulty thinking about anything else.
_____ 34) When I'm upset I take time to figure out what I'm really feeling.
_____ 35) When I'm upset, it takes me a long time to feel better.
_____ 36) When I'm upset, my emotions feel overwhelming.

Appendix G

Center for Epidemiologic Studies Depression Scale, Revised (CESD-R)

Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way **during the past week**.

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most of or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	1	2	3	4
2. I did not feel like eating; my appetite was poor.	1	2	3	4
3. I felt like I could not shake off the blues even with help from my family or friends.	1	2	3	4
4. I felt I was just as good as other people.	1	2	3	4
5. I had trouble keeping my mind on what I was doing.	1	2	3	4
6. I felt depressed.	1	2	3	4
7. I felt that everything I did was an effort.	1	2	3	4
8. I felt hopeful about the future.	1	2	3	4
9. I thought my life had been a failure.	1	2	3	4
10. I felt fearful.	1	2	3	4
11. My sleep was restless.	1	2	3	4
12. I was happy.	1	2	3	4
13. I talked less than usual.	1	2	3	4
14. I felt lonely.	1	2	3	4
15. People were unfriendly.	1	2	3	4
16. I enjoyed life.	1	2	3	4
17. I had crying spells.	1	2	3	4
18. I felt sad.	1	2	3	4
19. I felt that people disliked me.	1	2	3	4
20. I could not get "going".	1	2	3	4

Appendix H

Spielberger State-Trait Anxiety Inventory Six-Item Short Form (STAI-Y-6)

A number of statements which people have used to describe themselves are below. Read each statement and select the response that indicates **how you feel right now, at this moment**. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	Not At All	Somewhat	Moderately	Very much
1. I feel calm	1	2	3	4
2. I am tense	1	2	3	4
3. I feel upset	1	2	3	4
4. I am relaxed	1	2	3	4
5. I feel content	1	2	3	4
6. I am worried	1	2	3	4

Appendix I

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

In the last month…

	Never	Almost Never	Sometimes	Fairly Often	Very often
1. how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. how often have you felt nervous and stressed?	0	1	2	3	4
4. how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. how often have you felt that things were going your way?	0	1	2	3	4
6. how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. how often have you been able to control irritations in your life?	0	1	2	3	4
8. how often have you felt that you were on top of things?	0	1	2	3	4
9. how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
10. how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix J

Subjective Happiness Scale (SHS)

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1	2	3	4	5	6	7

Not a very
happy person

A very
happy person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7

Less happy

More happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

1	2	3	4	5	6	7

Not at all

A great deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

1	2	3	4	5	6	7

Not at all

A great deal

Appendix K

Mental Health Continuum Short Form (MHC-SF)

Please answer the following questions are about how you have been feeling **during the past month**. Indicate how often you have experienced or felt the following:

During the past month, how often do you feel…	Never	Once or twice	About once a week	About 2 or 3 times a week	Almost every day	Every day
1. happy						
2. interested in life						
3. satisfied with life						
4. that you had something important to contribute to society						
5. that you belonged to a community (like a social group, or your neighbourhood)						
6. that our society is a good place, or is becoming a better place, for all people						
7. that people are basically good						
8. that the way our society works makes sense to you						
9. that you liked most parts of your personality						
10. good at managing the responsibilities of your daily life						
11. that you had warm and trusting relationships with others						
12. that you had experiences that challenged you to grow and become a better person						
13. confident to think or express your own ideas and opinions						
14. that your life has a sense of direction or meaning to it						

Appendix L

The Network of Relationship Inventory – Relationship Qualities Version

Instructions: The questions below ask about your relationships with the four types of people listed on the right. On each blank line, write one number from 1 to 5.

1 = Never or hardly at all
2 = Seldom or not too much
3 = Sometimes or somewhat
4 = often or very much
5 = *ALWAYS* or *EXTREMELY* much

	Parent	Sibling	Best Friend	Romantic Partner
Initials or name:				
1. How often do you spend fun time with these people?				
2. How often do you tell these people things that you don't want others to know?				
3. How often do these people push you to do things that you don't want to do?				
4. How happy are you with your relationship with these people?				
5. How often do you and these people disagree and quarrel with each other?				
6. How often do you turn to these people for support with personal problems?				
7. How often do these people point out your faults or put you down?				
8. How often do these people praise you for the kind of person you are?				
9. How often do these people get their way when you two do not agree about what to do?				
10. How often do these people *not* include you in activities?				
11. How often do you and these people go places and do things together?				
12. How often do you tell these people everything that you are going through?				
13. How often do these people try to get you to do things that you don't like?				

14.How much do you like the way things are
   between you and these people?   _____ _____ _____ _____

1 = Never or hardly at all
2 = Seldom or not too much
3 = Sometimes or somewhat
4 = often or very much
5 = *ALWAYS* or *EXTREMELY* much

	Parent	Sibling	Best Friend	Romantic Partner
15. How often do you and these people get mad at or get in fights with each other?	_____	_____	_____	_____
16. How often do you depend on these people for help, advice, or sympathy?	_____	_____	_____	_____
17. How often do these people criticize you?	_____	_____	_____	_____
18. How often do these people seem really proud of you?	_____	_____	_____	_____
19. How often do these people end up being the one who makes the decisions for both of you?	_____	_____	_____	_____
20. How often does it seem like these people ignores you?	_____	_____	_____	_____
21. How often do you play around and have fun with these people?	_____	_____	_____	_____
22. How often do you share secrets and private feelings with these people?	_____	_____	_____	_____
23. How often do these people pressure you to do the things that he or she wants?	_____	_____	_____	_____
24. How satisfied are you with your relationship with these people?	_____	_____	_____	_____
25. How often do you and these people argue with each other?	_____	_____	_____	_____
26. When you are feeling down or upset, how often do you depend on these people to cheer things up?	_____	_____	_____	_____
27. How often do these people say mean or harsh things to you?	_____	_____	_____	_____
28. How much do these people like or approve of the things you do?	_____	_____	_____	_____
29. How often do these people get you to do things their way?	_____	_____	_____	_____

30. How often do it seem like these people ***do not*** give you the amount of attention that you want?

_____ _____ _____ _____