

Consequences of Self-Esteem Concealment on Well-Being

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Abstract

Low self-esteem is devalued and viewed as a flaw in North American culture (e.g., Cameron, 2016; Cameron, MacGregor & Kwang, 2013; Zeigler-Hill & Myers, 2009), therefore people with lower self-esteem are motivated to conceal it from those around them (Cameron, 2016). The present study attempted to examine whether the act of concealing insecurities (i.e. lower self-esteem) had subsequent impact on well-being. One hundred and eighteen participants, recruited from introductory psychology classes, recorded a video of themselves answering questions to be emailed to a parent or parental figure of their choosing. They were randomly assigned to either conceal their insecurities from their family member (Concealment Condition), or just be themselves (Be Yourself Condition). Well-being was assessed as the presence of authenticity, positive affect, and life satisfaction, and the absence of negative affect and fatigue. Results demonstrated that self-esteem has a prominent impact on well-being, with a main effect of self-esteem on all five measures of well-being. Findings regarding the interaction between self-esteem and condition were inconclusive, due to issues with adherence to the manipulation instructions. Reported self-esteem concealment was significantly correlated with three measures of well-being: authenticity, negative affect, and life satisfaction. Additionally, reported self-esteem concealment partially mediated the relationship between self-esteem and authenticity. Future research investigating the causal order between the constructs of self-esteem, self-esteem concealment, and well-being is suggested.

Keywords: Self-esteem, concealment, well-being, insecurities, family relationships

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Consequences of Self-Esteem Concealment on Well-Being

High quality relationships have long been known to enhance health and well-being in a variety of dynamic and complex ways. Overall, individuals with satisfying close relationships are privileged to increased longevity and greater resistance to disease (Cohen & Janicki-Deverts, 2009), decreased mortality rates (Uchino, 2004; House, Landis, & Umberson, 1988), decreased stress (Ditzen, Hoppmann, & Klumb, 2008), reduced social anxiety (Gordon, Heimberg, Montesi, & Fauber, 2012), enhanced subjective well-being (Cohen, 2004), among a plethora of other physical and psychological health benefits. However, while undeniably beneficial, close relationships may create a troubling environment for certain people, such as individuals with lower self-esteem (LSE).

Individuals with LSE often experience conflicting inner motives, as they are attempting to fulfill both self-protection and self-enhancement goals concurrently (Baumeister, Tice & Hutton, 1989; Murray, Holmes & Collins, 2006). As self-protection is prioritized over self-enhancement and safety is prioritized over risk (Afifi & Steuber, 2010; Baumeister, et al., 1989; Murray, Derrick, Leder & Holmes, 2008), those with LSE are inclined to conceal their insecurities from those they are close with (Cameron, 2016; Hogarth, Magid, Paluszek, & Cameron, 2017). The act of concealing insecurities is likely to create the same detrimental consequences that have been established by prior research regarding the concealment of stigmas and secrets (e.g., Major & Gramzow, 1999; Smart & Wegner, 2000). However, this speculation has not been previously studied and thus, the consequences of concealing self-esteem are unknown. Therefore, the present study aimed to contribute insight regarding the relationship between self-esteem and well-being, as moderated by self-esteem concealment. As such, the present research addressed whether the concealment of self-esteem is detrimental for well-being,

specifically identifying whether it is differentially detrimental for those with lower compared to higher self-esteem.

Self-Esteem

The study of the “self” and subsequently self-esteem may be linked to the early sociological study of self-concept and self-perception (Goffman, 1959). Research regarding impression management and the reflective-self demonstrates how self-views influence how people portray themselves to others, and how others’ opinions of them shape how they feel about themselves in return. Disciplines such as sociology and psychology began to build upon the idea of self-concept, as an attempt to better understand the thoughts and motivations of people by examining the fundamental ways they think and feel about themselves (Mann, Hosman, Schaalma & De Vries, 2004; Stets & Burke, 2014). From a psychological perspective, the study of self-esteem now involves examining the extent to which an individual favorably evaluates one’s self (Baumeister, Smart & Boden, 1996). Self-esteem is a personal appraisal that influences self-perception, and subsequently how an individual interacts with their environment and others (e.g., Cameron, MacGregor & Kwang, 2013). As a pertinent component of psychological functioning, self-esteem plays an essential role in a variety of meaningful domains such as personal achievement (e.g., Brown, 2014), interpersonal relationships (e.g., Baldwin & Sinclair, 1996; Cameron, Holmes, & Vorauer, 2009; Downey, Freitas, Michaelis & Khouri, 1998), satisfaction (e.g., Diener & Diener, 1995), and mental health concerns (e.g., Sowislo, & Orth, 2013).

In North American society, self-esteem is frequently categorized dichotomously, whereby individuals are seen as possessing either high or low self-esteem. In actuality, however, self-esteem should be quantified with low and high self-esteem at ends of a continuum (e.g.,

Baumeister, et al., 1996; Donnellan, Trzesniewski, Robins, Moffitt & Caspi, 2005). Therefore, it is appropriate to refer to individuals as possessing either lower or higher self-esteem (HSE) depending where they fall on the continuum. As a trait, self-esteem represents a person's global evaluation of their personal worth, which tends to remain relatively stable across the lifespan (Leary, 1999; Trzesniewski, Donnellan, & Robins, 2013). Relative stability means that individuals with LSE typically persist to have LSE in the future, while individuals with HSE typically retain their HSE over the course of their lifespan.

A closer look at the construct of self-esteem shows that there are general characteristics indicative of individuals who are higher or lower on the self-esteem continuum. Individuals with HSE possess a global liking for themselves that stems from favorable self-evaluation. They tend to be more confident and secure about themselves than individuals with LSE, resulting in higher life satisfaction and less association with depression (Diener, 1984; Tennen & Affleck, 1993). Individuals with LSE, on the other hand, generally have a global dissatisfaction for themselves that leads them to be more self-critical, insecure, dissatisfied, and more prone to depression and other mental health symptoms (see Cameron et al., 2009; Reis, Clark & Holmes, 2004; Sowislo & Orth, 2013). As a result, individuals with LSE face increased barriers in many aspects of life. They struggle to feel confident in themselves, making it difficult for them to feel genuinely accepted by others.

These negative self-evaluations also lead individuals with LSE to face increased difficulties with interpersonal relationships. While those with HSE remain confident and secure in their relationships, those with LSE report feeling less satisfied (Robinson & Cameron, 2012), less accepted (Reis et al., 2004), and more insecure in romantic relationships (see Cameron et al., 2009). For those with LSE, these negative emotions initiate a constant struggle to form and

maintain close relationships. Although they desire successful relationships like those with HSE (McFarlin & Blascovich, 1981), individuals with LSE are more inclined to expect failure and rejection due to their lack of self-confidence (Cameron et al., 2009). Furthermore, they anticipate greater negative reactions to revealing their flaws to others they are close with than those with HSE (Magid, Hogarth, Paluszek & Cameron, 2017). The expectation of rejection often serves as a form of self-fulfilling prophecy, whereby those with LSE perceive their partners as unsupportive (Downey et al., 1998) and unintentionally elicit the rejection of which they are so deeply afraid of (Stinson, Cameron, Wood, Gaucher, & Holmes, 2009).

In addition to barriers in interpersonal relationships, recent studies illustrate that individuals with LSE are actually perceived more negatively by society at large than those with HSE (Cameron, Hole, & Cornelius, 2012; Cameron et al., 2013). The persistent, negative view of LSE in North American culture represents an implicit theory of self-esteem (Zeigler-Hill & Myers, 2011), whereby HSE is regarded as more desirable (Zeigler-Hill, Besser, Myers, Southard & Malkin, 2013) and LSE is devalued and viewed as a flaw (Cameron et al., 2013). Moreover, people frequently judge individuals with LSE based on their self-esteem alone (Cameron et al., 2016), as they assume individuals with LSE possess lower competency, decreased intelligence, and frequently rate them as less desirable as a romantic partner (e.g., Cameron et al., 2012; Zeigler-Hill & Myers, 2009; Zeigler-Hill & Besser, 2014). Evidently, the global negative view of LSE exists in multiple facets of daily life, and is shown to persist even in the face of disconfirming evidence (Cameron et al., 2016), demonstrating its robust nature in North American culture. Furthermore, the implicit theory is so prevailing that the views of LSE are similar to a stigma in North American society (Cameron et al., 2013).

As a result of the cultural devaluation of low self-esteem, individuals with LSE may feel inclined to hide or conceal their LSE from those around them, in order to avoid judgment or criticism by others. Prior research on stigmas discusses how individuals with a stigmatizing condition are frequently motivated to conceal their condition from those around them, in order to avoid negative evaluations from others (e.g., Pachankis, 2007). Although it is understood why individuals with LSE would want to conceal their self-esteem from others, the consequences of self-esteem concealment have not yet been studied.

Self-Esteem and Concealment

The process of self-concealment “involves the conscious concealment of personal information (thoughts, feelings, actions, or events) that is highly intimate and negative in valence” (Larson & Chastain, 1990, p. 440). The act of self-concealment involves a decision by an individual to either conceal or reveal information to others, activating both affective and cognitive components. Although it is easy to understand why someone would want to conceal information from another person, there are other relevant factors regarding the process of concealment that must be addressed and understood. It is important to understand the underlying cognitive processes driving concealment, as well as when concealment occurs, what type of information is concealed, and what the effects of said concealment will be on the individual.

Individuals will typically decide to conceal or reveal information to others based on whether or not concealment is deemed “beneficial.” For individuals with LSE, however, the multifaceted nature of their LSE only further complicates the decision to conceal or reveal personal information. On the one hand, there are speculative advantages of being honest, such as effective communication (Noller & Ruzzene, 1991), relationship enhancement (Baumeister, et al., 1989), as well as feeling known, accepted, and secure in relationships (Reis et al., 2004). On

the other hand, there are potential advantages to concealing the information. Specifically, concealing LSE may prevent potential rejection or ridicule (see Cameron et al., 2013), as well as protect from further loss of self-esteem (Baumeister, et al., 1989; Murray et al., 2008). Therefore, while being open and honest may lead to relational enhancement and positive outcomes, concealment is considered a safer and more self-protective response. Due to the fact that individuals with LSE devalue themselves and tend to expect the worst responses from others, they tend to prioritize forms of self-protection over self-enhancement (Murray et al., 2006). Therefore, individuals with LSE will often conceal their self-esteem from others in order to hide their insecurities and avoid these potential negative outcomes. Recent research by Cameron (2016) and Hogarth et al. (2017) supports these conclusions, demonstrating that individuals with LSE report higher levels of self-esteem concealment in their close relationships than those with HSE.

Concealment and Family Relationships

The relationship between parents and their children is undeniably critical to a multitude of areas of positive development and well-being. Studies have shown that children's psychological well-being affects the well-being of their parents, and vice versa (Knoester, 2003). Not surprisingly, individuals with close, satisfying parental relationships report higher levels of self-esteem and well-being (Savin-Williams, 1989; Amato, 1994). However, while there are positive implications of close parental relationships, there are potential negative implications as well. Children may be motivated to keep secrets from their parents or conceal information from them for a few main reasons. They may be afraid of their reaction (Afifi & Steuber, 2010), may want to protect their family members from unnecessary hurt (Afifi, Olson, & Armstrong, 2005), or may feel that they would be strongly judged (Major, & Gramzow, 1999; LaSala, 2000). While

feelings of parental acceptance are associated with greater well-being, keeping a secret from parents has been associated with reduced well-being, such as depressed mood (Finkenauer, Engels, & Meeus, 2002). Due to the fact that concealing information from family members has been shown to be detrimental and positive family relationships are important for greater well-being, it is important to investigate topics that people may be motivated to hide from their family members. Due to the fact that people tend to keep secrets about things they are insecure about, it stands to reason that one thing they may want to hide from their family members are the doubts and insecurities they have about themselves. Indeed, people report that they do conceal low self-esteem from family members (Cameron, 2016; Hogarth et al., 2017).

Consequences of Concealment

Prior research regarding concealment has studied the concealment of secrets (e.g., Smart & Wegner, 2000), distressing information (Ward, Doherty & Moran, 2007), as well as various concealable stigmas, such as abortion (Major & Gramzow, 1999), eating disorders (Smart & Wegner, 1999; discussed by Pachankis, 2007), and sexual orientation (e.g., Frost, Parsons & Nanín, 2007). Concealable stigmas have been correlated with mental health (Mak, Poon, Pun & Cheung, 2007) as well as psychological distress (e.g., Quinn & Earnshaw, 2013), producing adverse consequences for the concealing individual (e.g., Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Larson & Chastain, 1990). These adverse consequences include outcomes such as decreased mental health, as well as increased anxiety and depression (Larson & Chastain, 1990; Sowislo & Orth, 2013).

In addition, while concealment has foreseeable negative consequences for an individual, it also may produce detrimental effects in interpersonal relationships. Secrets are negatively associated with both relationship closeness and satisfaction (e.g., Caughlin, Afifi, Carpenter-

Theune & Miller, 2005; Vangelisti & Caughlin, 1997), meaning that those who keep secrets feel decreased closeness to others as well as less satisfied with their relationships. Research on romantic relationships suggests that concealment creates distance between partners, and denies feelings of genuine acceptance and intimacy (Cole, 2001; Reis et al., 2004). Therefore, although concealing information may appear as an act of self-preservation, in certain ways concealment may actually sabotage both individual as well as interpersonal well-being. Research on family systems indicates that cycles of concealment develop, whereby instances of disclosure or concealment lead to response patterns over time (Afifi & Olson, 2005; Afifi & Steuber, 2010). As a result, one instance of concealment is likely to facilitate more concealment in the future, creating an exponentially detrimental cycle of concealment for all people involved. On the other hand, instances of personal disclosure can be uncomfortable for individuals with LSE, based on their awareness of the societal devaluation of LSE. However, there may be potential benefits to self-disclosure for individuals with heightened insecurities (as discussed by Stroebe, Schut, & Stroebe, 2006). Therefore, while disclosure may be uncomfortable, it has the potential to be beneficial being for individuals with LSE.

Notably, recent research by Hogarth et al. (2017) documented the concealment of self-esteem in three close relationship types: close friendships, familial relationships, and romantic relationships. Among these three relationship types, people reported similar levels of self-esteem concealment, with somewhat higher tendencies to conceal within familial relationships. Therefore, the present study built upon the prior research by further investigating the effects of self-esteem concealment in family relationships, which will be accomplished by examining the effects of self-esteem concealment on subjective well-being. Prior research regarding the harmful nature of concealment suggests that self-esteem concealment will have a negative relationship

with well-being (e.g., Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Larson & Chastain, 1990).

Subjective Well-Being

Subjective well-being (SWB) refers to “a person’s cognitive and affective evaluations of his or her life” (Diener, Lucas, & Oishi, 2002, p. 63), or how satisfied people are with their present state. Previous research has discussed a number of critical constructs central to the study of SWB. Most scholars agree that SWB should be characterized as a complex construct that is comprised of life satisfaction, positive affect, and the absence of negative affect (Andrews & Withey, 1976; Diener 1984; Diener, Emmons, Larsen, & Griffin, 1985). However, the study of SWB involves more than the simple examination of these three components. Prominent researchers in the study of SWB have indicated that other strong emotions (Diener et al., 1999) as well as feelings of authenticity (Wood et al., 2008) and the absence of fatigue (Wismeijer et al., 2009) are further critical components to the study of SWB.

Positive and Negative Affect. Bradburn (1969) was among the first scholars to state the importance of measuring positive and negative affect as components of SWB. Pleasant (positive) and unpleasant (negative) affect are momentary emotions and moods that are produced based on personal experiences (Diener, Scollon, & Lucas, 2009). Positive and negative affect have been characterized as independent constructs rather than as a single construct, due to the fact that they make unique contributions (Lucas, Diener, & Suh, 1996), demonstrate negative correlations with one another, and seem to correlate with separate constructs (Bradburn, 1969; Diener, Suh, Lucas, & Smith, 1999). Therefore, while positive affect is related to constructs such as satisfaction and social activity, negative affect is associated with constructs such as increased health complaints and stressful events (see Watson, Clark, & Tellegen, 1988). Research has also illustrated that

positive affect is associated with emotions such as enthusiasm, excitement, and inspiration, while negative affect is associated with feeling upset, afraid, or distressed (Watson et al., 1988). Quite simply, an excess of positive over negative affect has been shown to indicate positive SWB, as people who experience more positive than negative affect are typically characterized as happy and content (Bradburn, 1969; Diener et al., 1999).

Life Satisfaction. The construct of life satisfaction involves overall “global judgments about the quality of a person’s life” (Diener et al., 2009, p. 196). These cognitive judgements are not always appropriately weighted based on importance, but rather often reflect personal biases towards information that is prominent at the time, or relevant to areas of personal importance (Diener et al., 2009). Although life satisfaction is closely related to positive affect, it should ultimately be considered an independent construct that is distinguishable from positive and negative affect (Diener et al., 1999; Lucas et al., 1996). Life satisfaction provides a global judgement of satisfaction that is influenced by affect, social comparisons and expectations, in addition to cultural considerations (Diener et al., 2009). Evidently, it is important to separate the constructs of positive affect, negative affect, and life satisfaction, and to understand how they relate to the topics of self-esteem and self-esteem concealment.

Authenticity. In addition to the constructs of positive affect, negative affect, and life satisfaction, prior research has described the construct of authenticity as a critical, central component to the study of SWB (e.g., Horney, 1951; May, 1981; Yalom, 1980, Wood et al., 2008). Person-centered authenticity is a complex construct that has been defined as comprised of three distinct parts: “(a) a person’s primary experience, (b) their symbolized awareness, and (c) their outward behavior and communication” (Barrett-Lennard, 1998, p. 82). In other words, authenticity refers to self-determined cognitions and behaviors that generate feelings of self-

expression and being true to oneself (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Feelings of authenticity have been found to be correlated with both self-esteem and subjective well-being (Wood et al., 2008), as well as life satisfaction and negative affect (Goldman & Kernis, 2002). Although authenticity has been previously studied in regards to well-being, it has yet to be investigated regarding self-esteem concealment.

Fatigue. Beyond the three core constructs of SWB discussed above, there are other pertinent constructs to consider that may impact SWB. Prior research, such as Wismeijer et al. (2009), has used the presence of fatigue as an indicator of decreased SWB. The construct of fatigue involves aspects of physical and emotional depletion, that is frequently characterized as tiredness and exhaustion (Michielsen, Willemsen, Croon, De Vries, & Van Heck, 2004; Smets et al., 1998). Fatigue has been demonstrated as negatively correlated with well-being, with those who are increasingly fatigued reporting higher levels of depression, anxiety, and stress (Giallo, Wood, Jellett, & Porter, 2013). These findings demonstrate that there is a significant relationship between the constructs of well-being and fatigue. Furthermore, increased SWB has been associated with increased vitality (decreased fatigue), as well as increased feelings of comfort, which includes the absence of fatigue (Ormel, Lindeberg, Steverink, & Verbrugge, 1999; Ryan & Frederick, 1997). The study of fatigue is particularly relevant for the present study, as concealment is hypothesized to be especially exhausting (e.g., Slepian et al., 2012). The process of concealment requires large amounts of energy, as it takes effort for people to present themselves in a particular way (e.g., Vohs & Hetherton, 2000), resulting in depleted resources and exhausted mental control (Baxter & Wilmot, 1985; Smart & Wegner, 2000; Uysal, Lin & Knee, 2010).

The present study included measures of affect and life satisfaction, in order to adequately capture the central components of SWB. Additionally, it included measures of fatigue and authenticity, in order to evaluate other pertinent components of well-being that are hypothesized to be particularly relevant to self-esteem concealment. Therefore, the present study defined SWB in regards to five components: (1) positive affect, (2) negative affect, (3) life satisfaction, (4) authenticity, and (5) fatigue. Defining well-being in this way provided comprehensive coverage of the construct of well-being that more accurately attempted to depict the effects of concealment of self-esteem. Furthermore, measuring these five components of well-being simultaneously provided valuable, novel information regarding their interrelationships, as many studies of SWB investigate only a single construct of SWB individually (discussed by Kuppens, Realo, & Diener, 2008).

Subjective Well-Being and Concealment

The relationship between well-being and concealment has been getting attention from the research community in the past few decades. Prior research demonstrates that concealment in general is associated with reduced life satisfaction and SWB for both men and women (Wismeijer et al., 2009). Similarly, Friedlander, Naze, Fiske, Nadorff and Smith (2012) have demonstrated that concealment is related to increased depressive symptoms in older adults, as well as more frequent suicidal behaviors in younger adults. Research on romantic relationships depicts both short term and long term implications resulting from the process of concealment. Hiding information from one's partner is associated with lower relationship well-being the following day (Uysal, Lin, Knee & Bush, 2012), as well as long term effects, such as lower relational well-being and decreased relationship satisfaction over time (Finkenauer, Kerkhof,

Righetti, & Branje, 2009; Uysal et al., 2012). Overall, well-being is negatively associated with the process of concealment.

The consequences of concealment are particularly pertinent for individuals with LSE. As they are generally more insecure (Reis et al., 2004) and therefore have more insecurities to conceal from others they are close with, I anticipated that individuals with LSE would suffer the greatest consequences of self-esteem concealment. Recent research by Cameron (2016) demonstrates those with LSE tend to conceal more of their insecurities than those with HSE, corroborated by research by Uysal, Lin and Knee (2010) who found self-esteem to have a negative correlation with concealment of other self-aspects. These findings demonstrate that the lower an individual's self-esteem, the more they tend to conceal about themselves in general. As concealment is seen to erode well-being (e.g., Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Larson & Chastain, 1990), the increased concealment by those with LSE suggests they may suffer the greatest detriment to their well-being. Although the current literature illustrates self-concealment *in general* is detrimental to personal and relational well-being, the consequences of self-esteem concealment have yet to be investigated. Therefore, the present study hopes to contribute valuable information regarding the consequences of self-esteem concealment, specifically as related to subjective well-being. The present research also contributes novel information regarding the relationship between the concealment of self-esteem and the various constructs being used to measure subjective well-being, such as authenticity, positive and negative affect, and the absence of fatigue. Achieving a better understanding of the construct of SWB is of critical importance to improving quality of life and knowledge translation for both the general public as well as government agencies (Diener, Oishi, and Lucas, 2015).

Present Study Design

Based on the importance of subjective well-being and the detrimental effects of concealment on the self (e.g., Wismeijer et al., 2009), the current study was designed to examine the consequences of self-esteem concealment on well-being. This research builds upon the prior findings of Hogarth et al. (2017), which found that self-esteem concealment was markedly present in family relationships. The present study attempted to address whether the act of concealing or revealing insecurities to a parent or parental figure had an immediate impact on subjective well-being. The overall purpose of the present study was to investigate the relationship between self-esteem concealment and well-being, as moderated by self-esteem.

Participants were asked to answer questions on video to be emailed to a parent or parental figure. Each participant was randomly assigned to receive instructions to conceal their insecurities from their family member (Concealment Condition), or instructions to just be themselves (Be Yourself Condition). Well-being was then assessed on five dimensions to determine the effects of self-esteem concealment.

Research Questions and Hypotheses

In order to observe the effects of condition and self-esteem, well-being was analyzed separately on five dimensions: (1) the absence of fatigue, (2) authenticity, (3) positive affect, (4) the absence of negative affect, and (5) life satisfaction. I anticipated that all five measures of well-being would depict the same general findings shown in Figure 1, with negative affect and fatigue depicting the reverse relationship.

Overall, I hypothesized that self-esteem would be associated with well-being across all five measures, predicting a positive relationship with authenticity, positive affect, and life satisfaction, and a negative relationship with fatigue and negative affect (Hypothesis 1).

Furthermore, I predicted significant interactions would occur between condition and self-esteem (see Figure 1). Overall, I proposed that the concealment of insecurities would be damaging to well-being for both individuals with LSE and HSE. As individuals with LSE have heightened levels of insecurities (Reis et al., 2004), instructions to conceal their insecurities should necessitate greater efforts to conceal them from their family member. As concealment erodes well-being (e.g., Baxter & Wilmot, 1985; Smart & Wegner, 2000), higher levels of self-esteem concealment would presumably be increasingly detrimental. Therefore, I expected that individuals with LSE in the Concealment Condition would experience lower well-being compared to those with HSE in the Concealment Condition (Hypothesis 2a). Although personal disclosure can be uncomfortable for individuals with LSE, there are potential benefits to self-disclosure for individuals with heightened insecurities (as discussed by Stroebe, Schut, & Stroebe, 2006). Therefore, I predicted that individuals with LSE in the Be Yourself Condition would display higher levels of well-being compared to those with LSE in the Concealment Condition (Hypothesis 2b). For individuals with HSE, instructions to be themselves are quite comfortable, because they anticipate their honesty and openness to be met with acceptance (Reis et al., 2004). Therefore, I predicted that individuals with LSE in the Be Yourself Condition would display lower levels of well-being compared to those with HSE in the Be Yourself Condition (Hypothesis 2c). As concealment has been demonstrated to be detrimental to well-being (e.g., Baxter & Wilmot, 1985; Smart & Wegner, 2000), I predicted that individuals with HSE in the Concealment Condition would display decreased well-being compared to individuals with HSE in the Be Yourself Condition (Hypothesis 2d). Lastly, I did not believe there would be any gender differences between conditions, based on previous research by Cameron et al. (2016).

Ultimately, the two condition design attempted to illustrate whether the action of concealing insecurities resulted in immediate effects on well-being.

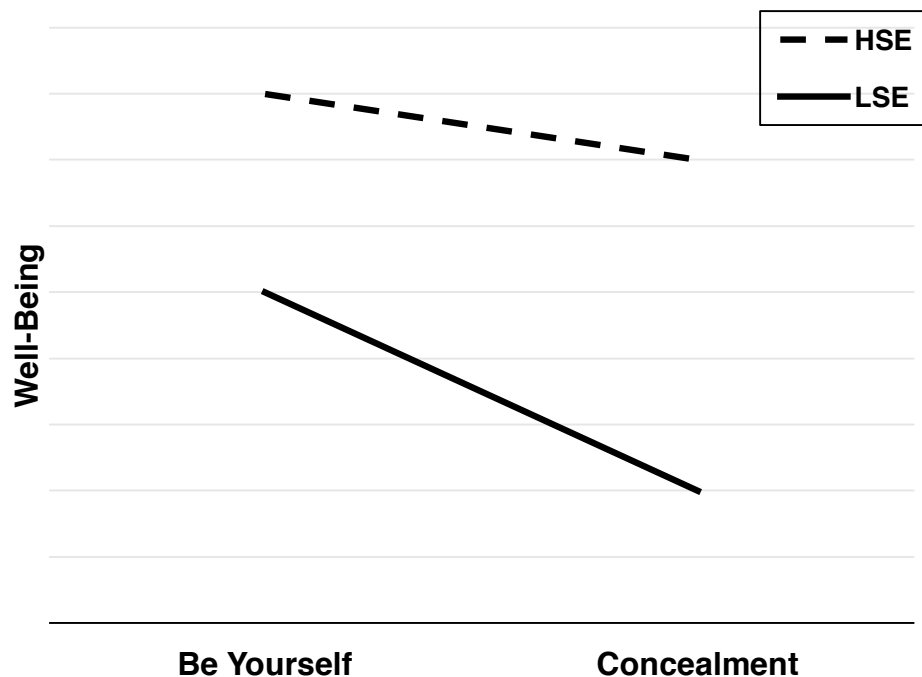


Figure 1. Predicted Self-Esteem by Condition Interaction on Well-Being.

Method

Power Analysis

G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) was used to conduct a power analysis in order to determine the size of the sample needed to obtain power of 0.80 with an alpha of 0.05. To obtain an effect size (r) of 0.16 using a linear multiple regression, the minimum sample size was determined to be 64 participants. I doubled this number because there are two conditions, resulting in an ideal sample size of 128 participants.

Participants

One hundred and forty-nine participants from introductory psychology courses at the University of Manitoba participated in a study on “Family Interactions.” They registered for an

individual lab session ahead of time using the University of Manitoba's online psychology sign-up system (SONA), and received two credits towards their research participation mark for their introductory psychology class. Some participants were excluded from the analyses due to not meeting the eligibility criteria or failing to complete the study as instructed. Specifically, there were four categories of exclusion criteria, including: (1) not being born in Canada or the United States ($N = 16$), (2) not speaking English as a primary language ($N = 12$), (3) not selecting a parent or parental figure to receive the video ($N = 7$), and (4) failing the probing questions or having an issue during the research session ($N = 6$)¹. Some participants overlapped in multiple areas of exclusion criteria, leading to a total of 31 participants being excluded from the analyses. Following the participant exclusions, there was a total of 118 participants who were included in data analyses, 51 who identified as "man" and 67 who identified as "woman." Participants ranged in age from 18 to 39 years old ($M = 19.93$ years, $SD = 3.48$), and were primarily single and of White/European descent. Fifty-two participants indicated they were in a romantic relationship at the time of the study, varying in length from 0.33 to 240 months ($M = 30.7$ months, $SD = 54.2$ months). Sample demographic and descriptive information is presented in Table 1.

¹Study session issues included suspicion regarding the legitimacy of sending the video ($N = 1$) and failure to provide a legitimate parental email address ($N = 5$).

Table 1

Demographic Information of Participants

Characteristic	<i>N</i>	%
Ethnicity		
White/European	80	67.8%
Indigenous	10	8.5%
Black/African American	8	6.8%
South Asian	7	6%
Chinese	3	2.5%
Filipino	3	2.5%
Other	3	2.5%
Arab/West Asian	1	0.8%
Japanese	1	0.8%
Latin American	1	0.8%
South East Asian	1	0.8%
Family Income		
More than \$160,000	27	22.9%
\$70,000 - \$99,999	20	17%
\$40,000 - \$69,999	18	15.3%
\$100,000 - \$129,999	18	15.3%
\$130,000 - \$159,999	16	13.6%
0 - \$24,999	11	9.3%
\$25,000 - \$39,999	8	6.8%
Relationship Status		
Single	66	55.9%
Exclusively Dating	36	30.5%
Casual Dating	32	27.1%
Living Together	7	5.9%
Married	4	3.4%
Separated	4	3.4%
Long Distance	3	2.5%
Dating Multiple People	1	0.8%
Engaged	1	0.8%
Divorced	0	0%
Widowed	0	0%

Note. Demographic categories are listed in order of frequency. *N* = 118.

Procedure

Participants were provided with a consent form that described the nature of the study and what they were asked to complete (Appendix B). If they consented to participate, the research assistant proceeded with the study. Participants were first asked to complete a preliminary “Personal Information” survey comprised of three parts. First, they reported their self-esteem by completing the Rosenberg Self-Esteem Scale (RSE; Appendix C; Rosenberg, 1965) using a 9-point response system, whereby 1 = *very strongly disagree* and 9 = *very strongly agree*. As in previous research (e.g., Cameron, Stinson, Gaetz & Balchen, 2010), the 9-point response system in place of the original 4-point response system allowed for a greater range of responses. Next, participants completed the Ten Item Personality Inventory (TIPI; Appendix D; Gosling, Rentfrow, & Swann, 2003), which was used as a filler to distract from the focus on self-esteem. Lastly, they completed a demographic questionnaire that provided information regarding their age, gender, country of origin, ethnicity, language, family income, and romantic relationship status (Appendix E).

Following the preliminary survey, participants provided a parent or parental figure’s email address to the research assistant via paper and pencil (Appendix F). Although the participant was told that their video would be emailed to their family member, no video was actually sent and the contact information was returned to the participant during the study debriefing.

After receiving the contact information, the research assistant provided the participant with a question sheet, containing the conditional instructions for the video and the list of questions that they needed to answer (Appendix G and H). Each participant was randomly assigned to receive distinct instructions for one of two conditions: instructions to conceal their

insecurities from their family member (Concealment Condition; $N = 62$), or instructions to just be themselves (Be Yourself Condition; $N = 56$). The video questions were selected to revolve around personal characteristics, with components relevant to self-esteem and insecurities (modified from Aron, Melinat, Aron, Vallone & Bator, 1997). Participants were given up to five minutes to review the video questions, and then recorded their video.

Following the video task, participants completed surveys measuring five components of well-being. Fatigue was measured by the Fatigue Assessment Scale (FAS; Appendix I), authenticity was measured by the Authenticity Scale (Appendix K), life satisfaction was measured by the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q; Appendix J), and positive and negative affect were measured by the Positive and Negative Affect Scale (PANAS) as well as items by Diener et al. (1999; Appendix J). These measures were followed by a five item manipulation check, in order to determine if the participants followed the concealment instructions (Appendix L), followed by a four item integrity check questionnaire that assessed the integrity of their responses (Appendix M). I examined participants' responses to item three of the integrity check, in order to assess the reliability of their responses. Issues with answering this question incorrectly are discussed further in the results section.

Upon completion of all study components, the researcher asked the participant probing questions to ensure that they did not catch on to the true purpose of the study (Appendix N). Following the probing questions, the contact information for each participant's family member was then returned to them, and each participant was debriefed regarding the true purpose of the study (Appendix O).

Materials and Measures

As previously discussed, the present study assessed SWB using five constructs: (a) the absence of fatigue, (b) positive affect, (c) the absence of negative affect, (d) life satisfaction, and (e) authenticity. These were measured using the Fatigue Assessment Scale, the Authenticity Scale, the Q-LES-Q, as well as the PANAS and additional affect items (based on Diener et al., 1999). Each measure utilized a 7-point response system, whereby 1 = *strongly disagree* and 7 = *strongly agree*. The original 5-point response systems of the Fatigue Assessment Scale and the PANAS were modified to the 7-point response system in order to allow for a greater range in responses. The present study also measured reported self-esteem concealment (RSEC) using the three questions from the manipulation check, which was used to determine if participants were actually following the instructions to conceal their insecurities.

Fatigue. The Fatigue Assessment Scale was used to determine the presence of exhaustion and depletion, indicative of the absence of well-being. The scale used for the present study was modified from the original FAS by Michielsen, De Vries and Van Heck (2003) in order to be more suitable for the present study. Items that were not relevant to the short term presence of fatigue following concealment, such as “I have problems starting things” or “I don’t do much during the day” were dropped from the scale. Therefore, six of the 10 items from the FAS were included in the study questionnaire. Wording of two items was slightly altered to ensure all items measured fatigued in the present moment. Participants were asked to rate the extent to which they agree with six statements about fatigue right now. The FAS used in the current study had high internal consistency ($\alpha = 0.80$), demonstrating good reliability.

Positive and Negative Affect. The Positive and Negative Affect Scale was used to assess participants’ mood by examining the presence of positive and negative affect. Six additional

items were also used to assess positive and negative affect, in order to provide comprehensive coverage of the constructs. These items were acquired from the components of SWB listed by Diener et al. (1999) that were discussed as both critical and central to the study of SWB. These items were added to the questionnaire as they represent positive and negative emotional components of SWB that were missing from the PANAS. The positive emotions that were added include joy, contentment, and happiness, while the negative emotions that were added include sadness, depression, and envy. The other emotions listed by Diener et al. were already included in the questionnaire or were not relevant to the present study because they focused on other constructs, such as physical health. Participants were given a total score for both positive affect and negative affect, which were analyzed separately. The positive affect items used in the current study had high internal consistency ($\alpha = 0.90$), as did the negative affect items ($\alpha = 0.88$).

Life Satisfaction. The Quality of Life Enjoyment and Satisfaction Questionnaire was modified from Endicott, Nee, Harrison, and Blumenthal (1993) in order to measure life satisfaction in the current study. Out of the 14 items under the “feelings” category of the Q-LES-Q, eight were chosen for the present study. The other six items that were not included as they were not momentary and therefore involved topics outside of the scope of the current study, such as “I felt able to travel about to get things done when needed.” The Q-LES-Q used in the present study had high internal consistency ($\alpha = .88$), demonstrating good reliability.

Authenticity. The Authenticity Scale was used to measure SWB by examining participants’ feelings of genuineness and authenticity. For the present study, only three items were selected from the original 12-item scale by Wood et al. (2008), replicating the process done by Slepian et al. (2017) that used three items as a short form of the authenticity scale for romantic relationships. While Slepian et al. looked at romantic partners, the present study

interchanged the term romantic partner for family member. Furthermore, the present study changed out the item “I feel that I am not fully upholding our relationship standards and values” for the more appropriate item “I feel that I need to do what my family member expects me to do.” The item added was included in the original scale by Wood et al. (2008). The authenticity scale used in the current study had good internal consistency ($\alpha = 0.67$), also demonstrating acceptable reliability.

Reported Self-Esteem Concealment. Reported self-esteem concealment was utilized to measure participants’ concealment of insecurities during the present study. RSEC was calculated using three items from the manipulation check, which were drawn from the concealment scale created by Cameron (2016). The RSEC items had good internal consistency ($\alpha = 0.65$), and one item was reverse coded.

Results

Preliminary Analyses

Before beginning the main analyses, I did some preliminary analyses in order to examine the descriptive information and relationships between the main variables. The preliminary analyses provided additional, pertinent information on factors such as parent closeness, as well as condition compliance and reported self-esteem concealment.

Selected Parental Figure. To provide a portrait of who participants’ selected as the audience for their video, I first examined the reported descriptive information about the selected parent or parental figure. The majority of participants ($N = 98$) reported recording the video to send to their mother, while only 19 participants reported recording the video to send to their father. One person reported recording the video for a parental figure.

Participants indicated rather high levels of closeness to their chosen family member. Of the five response options, participants' responses ranged only within the three options representing the highest degree of closeness, with 62 people selecting "extremely close", 46 people selecting "quite close", and only 10 people selecting "somewhat close" ($M = 4.44$, $SD = 0.65$). These findings suggested that participants reported high feelings of closeness with their chosen parent or parental figure.

Integrity Check. To assess participants' adherence to and understanding of the manipulation instructions, I examined their responses to one of the integrity check items that asked about condition compliance. The item examined was the most critical of the four integrity check questions, as it ensured that they had understood and followed the manipulation instructions. As described in the above methods section, I had initially intended to exclude people who answered the condition compliance integrity question incorrectly. However, upon reviewing the data it was determined that this was not a viable option due to the fact that significantly more participants failed the integrity item in the Concealment Condition ($N = 34$) compared to the Be Yourself Condition ($N = 4$), $\chi^2 = (3, N = 118) = 45.01, p < 0.001$. Participant responses to the condition compliance item are displayed in Table 2. Due to the fact that the majority of participants who failed the integrity check were in one condition, excluding such a large number of participants from only one group would have resulted in uneven cell sizes and reduced power for comparisons. As a result, participants who failed the condition compliance item were retained for the analyses. Further speculation as to why so many participants failed the condition compliance item in one condition is elaborated in the discussion.

Table 2

Condition Compliance Responses by Condition

Condition	Concealment Condition	Be Yourself Condition
Hide My Insecurities	28	0
Just Be Myself	15	52
Neither A Nor B	19	4
Total Failed	34	4

Note. $N = 62$ for Concealment Condition; $N = 56$ for the Be Yourself Condition.

Reported Self-Esteem Concealment. To assess participants' level of self-esteem concealment and to test whether those in the Concealment Condition concealed more than those in the Be Yourself Condition, I examined the responses to the concealment of insecurity items. Overall, participants reported similar, low levels of self-esteem concealment on the 7-point Likert scale across conditions, $M = 2.33$ ($SD = 0.99$) in the Be Yourself Condition and $M = 2.77$ ($SD = 1.05$) in the Concealment Condition, $t(116) = -2.31$, $p = 0.171$, $d = 0.43$. Thus, the manipulation appears to have failed to produce the desired level of self-esteem concealment, making it difficult to analyze the effects of self-esteem concealment on well-being.

Interrelations Among Continuous Variables. To assess the relationship between variables, I calculated the zero-order correlations between variables. Results and descriptive information are depicted in Table 3. Self-esteem was significantly, moderately correlated with almost all variables, the lowest being RSEC. All five measures of well-being were significantly correlated with one another, with the exception of positive affect and authenticity. As expected, the five facets of well-being were significantly correlated with one another, which speaks to their

suitability as components of a larger construct. Notably, RSEC was significantly correlated with Authenticity, Negative Affect, and Life Satisfaction.

Table 3

Descriptive Information of Variables

Variable	<i>M</i>	<i>SD</i>	Scale range	1	2	3	4	5	6
<i>Predictors</i>									
1. Self-Esteem	6.56	1.11	1 – 9	—	—	—	—	—	—
2. Reported Concealment	2.56	1.04	1 – 7	-.20*	—	—	—	—	—
<i>Dependent Variables</i>									
3. Fatigue	3.73	1.19	1 – 7	-.44**	.12	—	—	—	—
4. Authenticity	4.71	1.44	1 – 7	.40**	-.37**	-.33**	—	—	—
5. Positive Affect	4.53	0.90	1 – 7	.44**	-.15	-.46**	.16	—	—
6. Negative Affect	2.70	0.96	1 – 7	-.53**	.24**	.60**	-.36**	-.40**	—
7. Life Satisfaction	5.08	1.00	1 – 7	.65**	-.23*	-.49**	.39**	.59**	-.59**

Note. * $p < .05$. ** $p < .01$.

Main Analyses

Following the preliminary analyses, I proceeded with my main analyses in order to examine the effects of self-esteem and the manipulation on the dependent variables.

Self-Esteem by Condition. In order to test my hypotheses 1 through 2d, I ran a series of hierarchical multiple regressions, for each of the five components of well-being, including: (1) fatigue, (2) authenticity, (3) positive affect, (4) negative affect, and (5) life satisfaction. In each hierarchical multiple regression, categorical condition was dummy coded (0 = *be yourself*, 1 = *conceal insecurities*) and continuous self-esteem was mean centered. All hierarchical regressions

were conducted in two steps, with the main effects of condition and self-esteem entered in the first step, and the interaction between condition and self-esteem entered in the second step.

Is higher self-esteem associated with greater well-being (Hypothesis 1)? Yes, results showed statistical support for Hypothesis 1 that self-esteem significantly predicted well-being for each of the five dependent variables (see Table 4). Thus, the higher a participants' self-esteem, the lower their fatigue and negative affect, and the higher their authenticity, positive affect, and life satisfaction.

Table 4

Main Effects of Self-Esteem on Well-Being

Dependent Variable	β	t	df
Fatigue	-.44	-5.27	115
Authenticity	.40	4.65	115
Positive Affect	.44	5.20	114
Negative Affect	-.53	-6.75	114
Life Satisfaction	.65	9.13	113

Note. Predictors for the main effects were Self-Esteem and Condition. For all t-tests, $p < .001$.

Did participants' well-being differ by condition? No, results illustrated that there was no significant main effect between condition and well-being, which was not surprising as there were no predictions that there would be a main effect of condition on well-being.

Does self-esteem concealment moderate the association between self-esteem and well-being (Hypotheses 2a through 2d)? Regrettably, there was no support for hypotheses 2a through 2d, as there were no significant interactions between self-esteem and condition for any of the components of well-being. The lack of influence of the Concealment Condition variable is likely

due to the difficulties with participant condition compliance. The high levels of condition compliance failure indicated that participants did not follow the manipulation instructions given to them. Conjectures as to why this may have occurred will be discussed below. Additionally, rates of compliance failure were significantly higher in the Concealment Condition, suggesting that the instructions to conceal were related to why the manipulation was not successful.

Self-Esteem by Reported Self-Esteem Concealment. Due to the high number of participants who were told to conceal their insecurities but answered the integrity check question incorrectly, I speculated that reported concealment may be a better representation of self-esteem concealment than condition. In order to test the effects of RSEC on well-being, I then conducted the same five hierarchical multiple regressions for each of the components of well-being, substituting participants' RSEC (continuous and mean centered) for categorical condition. The results for self-esteem's main effect on all five components of well-being (shown in Table 3) were unchanged when controlling for self-esteem concealment.

Is higher RSEC associated with reduced well-being? Results showed a main effect of RSEC for one component of well-being, authenticity ($\beta = -.31$, $t(115) = -3.73$, $p < .001$). Thus, controlling for the main effect of self-esteem, participants higher in RSEC scored lower in authenticity.

Does RSEC moderate the association between self-esteem and well-being? Results were similar to the analyses with condition, such that no significant interactions were observed. Therefore, hypotheses regarding the interaction between self-esteem and RSEC were not supported.

Exploratory Mediation Analyses

With both the failed condition variable and reported self-esteem concealment not moderating the influence of self-esteem on well-being, I next attempted to understand the data by investigating whether self-esteem concealment mediated the relationship between self-esteem and well-being. Using Hayes' (2018) PROCESS macro for SPSS, I tested whether RSEC mediated the effect between self-esteem and the five components of well-being². Results indicated that RSEC was a significant mediator for one measure of well-being, authenticity. Self-esteem was a significant predictor of RSEC, $b = -.18$ ($SE = .09$), $t(116) = -2.15$, $p = .034$ (path a , Figure 2), and RSEC was a significant predictor of authenticity, controlling for self-esteem, $b = -.42$ ($SE = .11$), $t(116) = -3.72$, $p < .001$ (path b , Figure 2). Self-esteem was also a significant predictor of authenticity, controlling for RSEC, $b = .44$ ($SE = .11$), $t(116) = 4.09$, $p < .001$ (path c' , Figure 2). Importantly, the confidence interval for the indirect effect, $b = .08$, did not include zero (lower CI .002 to upper CI .179), therefore the results supported mediation. Thus, lower self-esteem resulted in greater RSEC which in turn led to lower feelings of authenticity. A graph of the mediation model is displayed in Figure 2.

²Authenticity was measured before reported self-esteem concealment in the sequence of questionnaires.

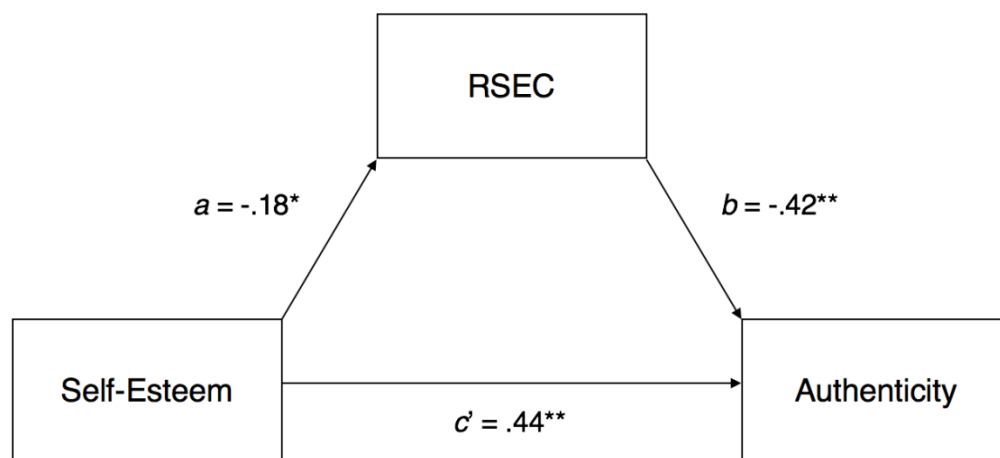


Figure 2. Mediation of the Link between Self-Esteem and Authenticity through Reported Self-Esteem Concealment (RSEC). * $p < .05$. ** $p < .001$.

Additional Exploratory Analyses

Following the main analyses, I then conducted some exploratory analyses in order to fully examine the effects of all variables on the dependent variables. First, I examined potential covariates that may be influencing the results. Next, I analyzed the relationship between video length and RSEC, in order to understand if participants' video length was impacting the results.

Covariates. To fully explore all possible influences on the variables, I then conducted the same five hierarchical multiple regressions for both condition and RSEC using parent closeness, age, gender, and household income as covariates. For both analyses using categorical condition and RSEC, the addition of the covariates did not alter the main effects of self-esteem on well-being, or the lack of effects for condition and the interactions.

Video Length. Participants' videos were coded for length as an indicator of how much they were disclosing in the video, as well as how much effort they put into the task. The average length of the video was 163.68 seconds ($SD = 90.05$), with a minimum of 42 seconds and a

maximum of 432 seconds. Pearson correlations between video length and the other variables were then examined. There was one significant correlation between video length and life satisfaction, with Pearson's $r(116) = .29, p = .001$.

As a Covariate. Video length (measured in seconds) was then entered as a covariate in the five hierarchical multiple regressions using condition, and the five hierarchical multiple regressions using RSEC. The findings between both sets of regressions were similar, with video length significantly predicting life satisfaction ($\beta = -.29, t(114) = -3.28, p = .001$, including condition, and $\beta = -.16, t(112) = -2.27, p = .025$, when including RSEC). Thus, when controlling for both video length and self-esteem, self-esteem concealment had a negative relationship with life satisfaction. However, the same significant findings were not observed for the other four well-being measures.

As a Dependent Variable. In order to further examine the potential impact of video length on the observed results, I then entered video length as a dependent variable for condition and self-esteem, followed by a separate analysis with RSEC and self-esteem. Results for condition were non-significant, while results for RSEC revealed a main effect of RSEC on video length ($\beta = -.18, t(115) = -1.94, p = .055$). Thus, the more participants concealed their insecurities, the shorter their video, suggesting that video length served as a measure of participant disclosure.

Discussion

The present study attempted to examine the variables of self-esteem, self-esteem concealment, and well-being in order to better understand their associations with one another. Additionally, variables are examined in isolation in order to better understand their unique contributions to the constructs. Although the majority of the experimental hypotheses remain

untested, valuable information regarding the impact of self-esteem on well-being, as well as the role of RSEC are discussed.

Self-Esteem and Well-Being

The results of the present study demonstrate that self-esteem has a prominent association with well-being. Overall, there was an enduring main effect of self-esteem for all five measures of well-being. Higher self-esteem individuals reported higher levels of well-being, while lower self-esteem individuals reported lower levels of well-being, supporting previous research on general well-being (Paradise and Kernis, 2002) and life satisfaction (Simsek, 2013). More specifically, the higher a participants' self-esteem, the lower their fatigue and negative affect, and the higher their feelings of authenticity, positive affect, and life satisfaction. Overall, the results revealed a strong, consistent relationship between self-esteem and multiple components of well-being.

Self-Esteem Concealment and Well-Being

The results of the current study also illustrated the relationship between RSEC and well-being, supporting previous findings that general self-concealment is correlated with decreased psychological well-being (e.g., Friedlander, Naze, Fiske, Nadorff, & Smith, 2012; Wismeijer, Van Assen, Sijtsma, & Vingerhoets, 2009). In the present study, RSEC was significantly correlated with three measures of well-being: authenticity, negative affect, and life satisfaction. Thus, the more participants concealed their insecurities from their chosen family member, the higher their feelings of negative affect and the lower their feelings of authenticity and life satisfaction. However, when controlling for self-esteem, only the association between RSEC and authenticity remained, such that higher reports of self-esteem concealment predicted lower feelings of authenticity. These findings support prior research by Goldman and Kernis (2002)

that authenticity is imperative to well-being, with higher scores of authenticity related to higher self-esteem and life satisfaction, and lower negative affect. Exploratory investigation into the relationship between self-esteem, RSEC, and authenticity demonstrated that RSEC acted as a significant mediator for the relationship between self-esteem and authenticity. In other words, lower self-esteem resulted in greater self-reported concealment of self-esteem which in turn led to lower feelings of authenticity. Thus, RSEC helps to explain why self-esteem is related to well-being in regards to feelings of authenticity. Finally, participants who reported greater self-esteem concealment recorded shorter videos, which suggests that overall less disclosure was associated with greater self-esteem concealment.

The Interaction between Self-Esteem, Self-Esteem Concealment, and Well-Being

Regrettably, likely due to the issues described with the experimental manipulation, no conclusions can be drawn regarding the manipulation of self-esteem concealment on well-being for those with lower compared to higher self-esteem. There were no significant interactions present between self-esteem and condition for any of the measures of well-being, which was likely due to the fact that the experimental manipulation of condition did not work as intended, as demonstrated by the failed integrity check. Prior research by Slepian, Masicampo, and Galinsky (2016) that asked participants to recall secrets encountered similar difficulties with having participants successfully recall secrets corresponding to condition. They proposed that the primary issue is that participants do not always recall secrets that correspond with their experimental instructions, therefore rendering the potential effects of the experimental manipulation ineffective or increasingly difficult to observe. Due to the low levels of RSEC reported in the present study, it is likely that participants faced similar difficulties with following the conditional instructions.

The absence of significant interactions was also regrettably true between self-esteem and RSEC on well-being. It is unclear whether the self-reported measure of RSEC in the present study can be trusted, given that RSEC was low and only one condition was asked to conceal insecurities from their family member. Thus, the present experiment failed to truly test the majority of the predictions regarding the interactions between concealment of self-esteem and well-being. While the absence of interaction effects could be due to a lack of relationships between the variables, it is quite probable that they may also be due to the issues described with participants following the conditional instructions. Therefore, further research is needed to identify whether or not an interaction between self-esteem, self-esteem concealment, and well-being truly exists.

Failed Integrity Check. After reflecting on the study procedure, there seem to be four potential explanations for why the experimental manipulation did not work as intended. First, it is possible that having the concealment instructions written on the video question page might have enabled participants to skip over the manipulation instructions. Having the instructions on the page was chosen in order to minimize researcher biases, however it is possible the chosen method may have been too subtle and thus introduced additional error. Therefore, it is recommended to try a similar study design with the experimental instructions read to the participants by a research assistant. Secondly, it is also feasible that participants may not have been putting their full effort into the task, or may have avoided putting in the extra effort required in order to follow the manipulation instructions. As typical with convenience samples, participants recruited from introductory psychology pools may put in the least amount of effort in order to obtain class credit (see Landers & Behrend, 2015). Therefore, it is recommended to try a similar experimental design with a different sample, in order to eliminate issues with

convenience sampling. Third, it is possible that participants may have disliked the concealment instructions because they found them inappropriate or distasteful. For a group of young adult participants who were willing to come into the lab for a video study involving a family member, being asked to conceal information might have seemed particularly inappropriate given their high levels of closeness to their family member. Therefore, utilizing other potential audience groups for the video (such as a friend or a stranger) may help to make the experimental instructions more applicable.

Perhaps the most likely explanation, however, is that participants might have ignored the manipulation instructions due to the fact that they were difficult to follow. Concealment is more difficult than being yourself, as it requires energy and effort (e.g., Vohs & Hetherton, 2000, Slepian, Camp, & Masicampo, 2015) and is depleting and taxing on cognitive resources (e.g., Smart & Wegner, 2000). This would explain why the majority of the participants who failed the integrity check items were in the Concealment Condition. Furthermore, Slepian et al. (2016) had similar difficulties with participants recalling secrets based on conditional instructions, suggesting that it may be difficult for participants to recall relevant secrets on demand. Consequently, this explanation for why the experimental manipulation failed should be considered the most likely. Due to the higher rates of integrity check item failure in the Concealment Condition, the present study demonstrates that asking participants to conceal their insecurities from their family members is a difficult instruction to follow. Therefore, further research using other methods of experimental manipulation in order to better isolate the effects of self-esteem concealment on well-being are recommended. The present research has three suggestions for potential improvement. First, participants may be asked directly to discuss how they feel about themselves on video, in an attempt to increase participant compliance. Second,

participants may be asked to first think about their personal insecurities, and then asked to hide them. This may increase the pertinence of the video questions. Lastly, Slepian et al. (2016) suggest asking participants to reflect and think about their secrets, rather than directly manipulating the recall of them. These improvements should increase the ability of future research to accurately detect the true relationship between self-esteem, self-esteem concealment, and well-being.

Strengths

The present study has a number of conceptual strengths worth noting. First, the study was the first study of its kind to examine the effects of self-esteem concealment on well-being. Although the manipulation was ineffective and the effects of self-esteem concealment could not truly be tested, the present study was the first to investigate both the process and the relationship between self-esteem, self-esteem concealment, and well-being. Second, the current study was the first to my knowledge to test the five components of fatigue, authenticity, negative affect, positive affect, and life satisfaction simultaneously. Characterizing well-being with five distinct components appeared to provide a good overall measure of the construct. Results generally supported hypotheses that the same patterns would be shown for all measures of well-being, with lower self-esteem related to decreased authenticity, positive affect, life satisfaction, and increased negative affect and fatigue.

The present study also had a number of methodological strengths. First, in terms of experimental design, the present study used random assignment and also attempted to directly manipulate self-esteem concealment, rather than using self-report in which causal relationships could not have been determined. Experimental manipulation provided the opportunity to assess the direct relationship between self-esteem concealment and well-being. Second, there were also

five measures of well-being, which provided a comprehensive and well-rounded measure of the construct in multiple dimensions. Information regarding the interrelations between these measures of well-being was also unique and valuable. Additionally, the scales used to measure each component of well-being were shown to possess good validity, as each measure ranged from good to excellent internal consistency. Third, the present study built on prior research by Hogarth et al. (2017) that identified somewhat higher tendencies for self-esteem concealment within familial relationships, compared to friendships and romantic partners. Therefore, focusing on parent-child relationships provided the best opportunity to detect an effect of self-esteem concealment on well-being. Furthermore, focusing on familial relationships rather than close relationships overall meant that the current study was able to provide more accurate, direct conclusions about familial relationships. Overall, participants reported high levels of closeness with their family member, which may have motivated them to conceal from their family members had the study design been more relevant. Fourth, researchers did not talk to participants about their assigned condition, so there were no expectancy effects in the research sessions. Fifth, the present study had a relatively equal split of men and women, which provided the opportunity for exploratory comparisons between the responses of men and women. There were no significant findings in these exploratory analyses.

Limitations

On the other hand, there were also a number of noteworthy weaknesses to the present study, mainly in regards to design limitations. The first notable weakness was that the experimental manipulation did not work as intended, which was demonstrated by the large number of participants in the Concealment Condition who failed the condition compliance check and who failed to report greater levels of concealment compared to the Be Yourself Condition.

Therefore, drawing conclusions between the causal influence of concealment of self-esteem on well-being was not possible. This was the largest limitation of the present study. Second, another possible design limitation included the video questions that were chosen. They were designed to be open ended so that they would not limit participants' responding, such as sharing an embarrassing moment or a personal wish. However, it is possible that they were not specific enough to elicit emotion or the motivation to conceal. It appeared as though the questions were effective in eliciting emotion and concealment for some participants but not for others, as demonstrated by the variety in video length and disclosure of participants. Third, it is also possible that the video study context overall did not elicit concealment, as suggested by the fact that levels of RSEC were low in both conditions. Fourth, some of the variables also displayed restricted range that could have limited the ability to accurately detect an effect. Both RSEC and reported parent closeness were relatively skewed in their distribution. Fifth, the experimental sample was also largely homogenous, with the majority of participants being single, White/European young adults in the upper/middle class. Research by Blanchard (2012) discusses how the population of Western, Educated, Industrialized, Rich, and Democratic (WEIRD) is dominating psychological research and is not characteristic of the entire population. Therefore, research is needed to represent a broader range of age, ethnicity, and family income groups.

Implications and Future Directions

The present study has important implications for future research. The findings that self-esteem significantly predicted well-being for all five components illustrates the widespread influence that self-esteem has on multiple areas of life. Therefore, the current study demonstrated the enduring impact of self-esteem on fatigue, negative affect, positive affect, authenticity, and

life satisfaction. These findings provide further evidence regarding the importance of positive self-appraisal for a healthy, satisfying life.

Some relationships did emerge from the present study regarding RSEC, as it was correlated with authenticity, negative affect, and life satisfaction. Therefore, future research could further investigate the nature of these relationships in order to better understand their strength and direction. In terms of the experimental manipulation, the most prominent relationship between RSEC and well-being (when controlling for self-esteem) was found for authenticity. Furthermore, RSEC was found to mediate the relationship between self-esteem and authenticity. Although it is valuable to understand how self-esteem concealment partially explains the relationship between self-esteem and well-being, many questions remain unanswered. It is critical for future research to examine the causal order of these relationships, in order to gain a better understanding of the underlying process involved in self-esteem concealment and the effects of it on the self. Therefore, future research should continue to investigate the potential mediating role of self-esteem concealment on measures of well-being.

The direct theory regarding the effects of the concealment of self-esteem on well-being still remains untested, due to the fact that the experimental manipulation was largely ineffective. Therefore, future research should try another manipulation of concealment by altering the experimental conditions in order to elicit higher concealment, which may involve using different video questions, different concealment instructions, a different participant population, or looking at a different type of close relationship altogether. Prior research by Hogarth et al. (2017) illustrated that individuals with LSE report higher levels of concealment in their close relationships than those with HSE. Therefore, future studies may consider focusing solely on individuals with LSE, in order to better examine the process of concealment. Furthermore,

research by Simsek (2013) suggests that self-esteem seems more critical for well-being for individuals with insecure attachment styles. Therefore, future research could also look at attachment styles in order to better explore the potential relationship between self-esteem concealment and well-being.

Conclusions

The present study served as a preliminary investigation of the relationship between self-esteem, self-esteem concealment, and well-being. Findings on the interaction between self-esteem and self-esteem concealment were not supported, likely due to issues with adherence to the manipulation instructions. Therefore, results regarding the impact of self-esteem concealment on well-being are inconclusive. The relationship between self-esteem and well-being, however, was significant for all measures of well-being, which demonstrated the prominent connection between well-being and self-esteem. Measures of RSEC were correlated with decreased authenticity, greater negative affect, and decreased life satisfaction, demonstrating a connection between some measures of self-esteem concealment and well-being. Furthermore, self-esteem was associated with reduced authenticity, which was partially mediated by RSEC. Therefore, future research should continue to investigate the relationship between self-esteem concealment and well-being, advisably altering some of the components of the present study. Future research should also attempt to establish a causal order between the concepts of self-esteem, concealment, and well-being, in order to help illustrate the underlying model affecting those with lower self-esteem. Achieving a better, comprehensive understanding of the impact of self-esteem concealment is of critical importance to improving quality of life for individuals falling anywhere on the self-esteem continuum.

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Appendix A

UNIVERSITY
OF MANITOBA**Online Recruitment Statement****Study Name:** Family Interactions Study**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,
Jessica.Cameron@umanitoba.ca; phone: 1 (204) 474-7490**Student Investigator:** Jessa Hogarth, M.A. Clinical Psychology Student;
umhogarj@myumanitoba.ca**Sponsor:** Psychology Graduate Fellowship and Research Manitoba**Brief Abstract:** A study examining interactions between family members

Detailed Description: This study is being conducted as part of Jessa Hogarth's Clinical Psychology Master's degree requirements, under the supervision of Dr. Jessica Cameron. If you participate in this study, you will be asked to answer five questions on video that will be emailed to a parent or parental figure of your choice. The video questions are designed to be simple and straightforward and recording them should take approximately five minutes. You will also complete a number of questionnaires regarding your thoughts, feelings, personality characteristics, and demographic information.

There is no significant risk to participating in this study. However, it is not uncommon for people to experience some discomfort with the video task or with answering personal questions.

Eligibility Requirements: You must be fluent in English and must have been born in Canada or the United States in order to participate in this study.

Exclusion Criteria:

- Individuals who are not fluent in English.
- Individuals who were not born in Canada or the United States

Duration: This study will take approximately 50 minutes.

Compensation: You will receive 2 credits towards your research participation mark for participating in the study

Appendix B

UNIVERSITY
OF MANITOBA**Information and Consent Form****Study Name:** Family Interactions Study**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,
Jessica.Cameron@umanitoba.ca**Student Researcher:** Jessa Hogarth, M.A. Clinical Psychology Student;
umhogarj@myumanitoba.ca**Sponsor:** Psychology Graduate Fellowship and Research Manitoba

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or more information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

What does participating involve?

This research is being conducted as part of Jessa Hogarth's Clinical Psychology Master's degree requirements, under the supervision of Dr. Jessica Cameron. This study is being conducted to study interactions between family members, and the feelings that go along with those interactions. You will be asked to complete some preliminary questions about your feelings and other personal characteristics. You will then create a brief video (5 minutes in length) answering five posed questions, to send to a parent or parental figure of your choice. You will then complete questionnaires regarding your feelings following the experience, as well as some demographic information. If you choose to take part in this study, participating will require **approximately 50 minutes**. You will receive 2 credits towards your research participation mark for your participation.

What are the benefits?

By participating, you are making a valuable contribution to research on family interactions. You may experience and learn more about how psychological research is conducted. You may also enjoy reflecting on your beliefs, attitudes and behaviours.

Is there any potential for harm?

There is no significant harm anticipated from participating in this study. However, it is not uncommon for people to experience some discomfort with the video recording task or with answering personal questions. If you are uncomfortable answering any question, you are free to skip it and move on to the next one.

How will your information be protected?

The confidentiality of your answers will be protected, and only authorized research assistants will have access to your responses. All of the data collected will be analyzed by Dr. Cameron, Ms. Hogarth, and their trained research assistants. You will be given a unique number and all data inputted will be associated with this number instead of your name. Your responses on the questionnaires will remain completely anonymous and your video will remain confidential; your name will never be associated with any of your responses or your video. The anonymous data you provide will be retained indefinitely in a secure electronic format and video data will be destroyed in seven years.

What if you want to stop participating?

If you start the study and for any reason want to stop, you are free to do so at any point without any negative consequences or loss of credits. You may also refuse to answer any questions that you do not wish to answer. If you do choose to withdraw from this study, we will destroy any data that you have provided and it will not be included in the analysis. If you do choose to withdraw from this study, you will not forfeit your research credits.

When will you receive the results?

You will not receive individual feedback on your results. If you would like further information about the results of the study, you can provide your email address below to receive an aggregate summary of the results in March, 2018.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project, you may contact Dr. Jessica Cameron or the Human Ethics Coordinator at (204)474-7122 or humanethics@umanitoba.ca. A copy of this consent form has been given to you for your records and reference.

Name _____ Signature _____

Email (only if you want to be emailed an aggregate summary of the results):

Researcher's Signature _____ Date _____

Appendix C

Personal Information Questionnaire

The first series of questions will ask you some personal information about yourself. Please be open and honest in your responding, there are no right or wrong answers.

Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965)

Instructions: Think about each statement that follows and rate the degree to which you agree or disagree with it on the following scale.

Very Strongly Disagree	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree	Very Strongly Agree
1	2	3	4	5	6	7	8	9

1. On the whole, I am satisfied with myself. _____
2. At times I think I am no good at all. _____
3. I feel that I have a number of good qualities. _____
4. I am able to do things as well as most other people. _____
5. I feel I do not have much to be proud of. _____
6. I certainly feel useless at times. _____
7. I feel that I'm a person of worth. _____
8. I wish I could have more respect for myself. _____
9. All in all, I am inclined to think that I am a failure. _____
10. I take a positive attitude toward myself. _____

Appendix D

Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003)

Instructions: Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement as you feel right now. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree Strongly	Disagree Moderately	Disagree a Little	Neither Agree nor Disagree	Agree a Little	Agree Moderately	Agree Strongly
1	2	3	4	5	6	7

I see myself as:

1. _____ Extraverted, enthusiastic.
2. _____ Critical, quarrelsome.
3. _____ Dependable, self-disciplined.
4. _____ Anxious, easily upset.
5. _____ Open to new experiences, complex.
6. _____ Reserved, quiet.
7. _____ Sympathetic, warm.
8. _____ Disorganized, careless.
9. _____ Calm, emotionally stable.
10. _____ Conventional, uncreative.

Appendix E

Demographic Questionnaire

1. What is your age (in years)? _____

2. What is your gender?

_____ Man

_____ Woman

_____ I identify as . . . (specify: _____)

3. In which country were you born?

_____ Canada

_____ Other (where _____ and how long you've been in Canada _____)

4. Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below. If more than one category applies, please select the one with which you most strongly identify.

_____ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)

_____ Black/African American

_____ Chinese

_____ Filipino

_____ Indigenous (e.g., Métis, First Nations, Inuit)

_____ Japanese

_____ Korean

_____ Latin American (e.g., Hispanic)

_____ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)

_____ South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)

_____ White/European (e.g., English, French, Scottish, Irish)

_____ Other (please specify) _____

5. What is your primary language? _____

6. To the best of your knowledge, what is your approximate **household** income? If you live with your parents include both your own and your parent/guardians' income.

- 0 - \$24,999
- \$25,000 - \$39,999
- \$40,000 - \$69,999
- \$70,000 - \$99,999
- \$100,000 - \$129,999
- \$130,000 - \$159,999
- More than \$160,000

7. Are you currently romantically involved with someone? YES or NO

8. If so, how long have you been involved in your current relationship? ____ years ____ months

9. What is the current status of your relationship? (check as many as currently apply)

Married _____

Engaged _____

Exclusive dating _____

Dating multiple people _____

Separated _____

Casual dating _____

Living together _____

Long distance _____

Divorced _____

Widowed _____

Appendix F

Family Member Identification

Instructions: You have been asked to select a parent or parental figure to send a video of yourself to by email.

This person is my

- a) Mother
- b) Father
- c) Other (please specify: _____)

Overall, I would say I am

- a) Extremely close with this person
- b) Quite close with this person
- c) Somewhat close with this person
- d) Not very close with this person
- e) Not at all close with this person

[Note: This section will be completed on paper and returned to the participant at the end of the study]

Family Member Contact Information

Full Name: _____

Email Address: _____

Disclaimer: We will use this contact information solely to email the video for this study. This contact information will be kept confidential.

Appendix G

Video Questions: Concealment Condition (Modified from Aron, Melinat, Aron, Vallone & Bator, 1997)

Instructions: You are about to record a video for a parent or parental figure to watch.

We ask that you try to hide any insecurities you may have about yourself while answering the video questions for your parent (or parental figure). Make sure to convey a strong and self-confident image while recording your answers.

We are asking all participants to communicate in this way to make sure everyone has the same experience. Please ensure that you follow all instructions and answer all questions in the order they are listed.

1. Tell your family member something you like about them.
2. If you could wake up tomorrow having gained one quality or ability, what would it be? Why?
3. If you could wish for one thing, what would it be? Why?
4. Share an embarrassing moment you experienced in the past.
5. Share a personal problem you are having in your life

Appendix H

Video Questions: Be Yourself Condition (Modified from Aron, Melinat, Aron, Vallone & Bator, 1997)

Instructions: You are about to record a video for a parent or parental figure to watch.

We ask that you try to act as you would typically act while talking to your parent (or parental figure). Make sure to be natural and “just be yourself” while recording your answers.

We are asking all participants to communicate in this way to make sure everyone has the same experience. Please ensure that you follow all instructions and answer all questions in the order they are listed.

1. Tell your family member something you like about them.
2. If you could wake up tomorrow having gained one quality or ability, what would it be? Why?
3. If you could wish for one thing, what would it be? Why?
4. Share an embarrassing moment you experienced in the past.
5. Share a personal problem you are having in your life.

Appendix I

Fatigue Assessment Scale (FAS; Modified from Michielsen, De Vries, & Van Heck, 2003)

Instructions: Please rate the degree to which you agree with the following statements right now, using the scale below. Please be open and honest in your responses, there are no right and wrong answers.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Right now...

1. Mentally, I feel exhausted _____
2. I feel no desire to do anything _____
3. I am bothered by fatigue _____
4. Physically, I feel exhausted _____
5. I am having trouble thinking clearly _____
6. I can concentrate well _____

Appendix J

Affect and Life Satisfaction Assessment (Based on Watson, Clark, & Tellegen, 1988; Diener, Suh, Lucas, & Smith, 1999; and Endicott, Nee, Harrison, & Blumenthal, 1993)

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word using the scale below.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Right now, I feel...

- | | |
|---|----------------------------------|
| _____ 1. Interested | _____ 11. Irritable |
| _____ 2. Distressed | _____ 12. Alert |
| _____ 3. Excited | _____ 13. Ashamed |
| _____ 4. Upset | _____ 14. Inspired |
| _____ 5. Strong | _____ 15. Nervous |
| _____ 6. Guilty | _____ 16. Determined |
| _____ 7. Scared | _____ 17. Attentive |
| _____ 8. Hostile | _____ 18. Jittery |
| _____ 9. Enthusiastic | _____ 19. Active |
| _____ 10. Proud | _____ 20. Afraid |
| _____ 21. Sad | _____ 22. Joyful |
| _____ 23. Content | _____ 24. Depressed |
| _____ 25. Happy | _____ 26. Envious |
| _____ 27. Clearheaded | _____ 28. Satisfied with my life |
| _____ 29. Relaxed | _____ 30. Good about my life |
| _____ 31. Able to take care of myself | _____ 32. Able to communicate |
| _____ 33. Able to deal with life's problems | _____ 34. Able to make decisions |

Note. Items 1-20 = PANAS, items 21-26 = based on Diener et al. (1999), items 27-34 = Q-LES-Q.

Appendix K

Authenticity Scale (Modified from Wood, Linley, Maltby, Baliousis, & Joseph, 2008 and Slepian, Chun, & Mason, 2017)

Instructions: Please rate the degree to which you agree with the following statements right now, using the scale below. Please be open and honest in your responses, there are no right and wrong answers.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Right now...

1. I feel that I am not being fully authentic with my family member
2. I feel that I am holding back some of the 'real me' from my family member
3. I feel that I need to do what my family member expects me to do

Appendix L

Reflecting on Your Video

Instructions: Please rate the degree to which you agree with the following statements right now, using the scale below. Please be open and honest in your responses, there are no right and wrong answers.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

During the video...

1. I was open about who I am. _____
2. I tried to hide how I feel about myself. _____
3. I tried to conceal my insecurities and self-doubts. _____
4. When you recorded your video, was there anything you deliberately left out or tried to hide?
YES or NO
5. If YES, briefly mention what you tried NOT to convey on your video? (in other words, what did you leave out of your video recorded answers)

Appendix M

Integrity Check

1. Today I was asked to make a video for a family member that was approximately
 - a) 3 minutes in length
 - b) 5 minutes in length
 - c) 15 minutes in length

2. The order of events for the experiment today was
 - a) Video, Questionnaires, Interview
 - b) Questionnaires, Video, Questionnaires
 - c) Questionnaires, Video, Interview

3. I was asked to do the following when making the video for my family member:
 - a) Hide my insecurities
 - b) Just be myself
 - c) Neither a nor b

4. I took this experiment seriously and my data is trustworthy for your analyses
 - a) Yes
 - b) No

Appendix O

UNIVERSITY
OF MANITOBA**Feedback and Debriefing Form****Study Name:** Family Interactions Study**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,
Jessica.Cameron@umanitoba.ca**Student Researcher:** Jessa Hogarth, M.A. Clinical Psychology Student;
umhogarj@myumanitoba.ca**Sponsor:** Psychology Graduate Fellowship

Thank you for participating in the *Family Interactions Study*! As previously described, we are interested in how family members communicate with one another. Specifically, we are most interested in how people conceal or reveal their insecurities to their family members during these interactions, and how this affects their overall well-being. We know from previous research that concealing other information can be exhausting and undermine general well-being. So, just like in research on other topics, we believe that people who conceal their insecurities may experience a decrease in well-being. For our study, this decrease would be only temporary, but in a real life setting people who are continually concealing could experience more lasting consequences.

Because the topic of concealment involves keeping something a secret, it is actually very difficult to study directly. That is why we decided to randomly assign people to one of two conditions. In one condition, participants were asked to conceal their insecurities; in another, to just be themselves.

Overall, we are trying to learn more about the effects of concealing so that we can better understand how to help people who are experiencing reduced well-being. We are not truly interested in how family members might react to the video recordings – just in how making the video might influence how someone feels in the moment. So although we asked you for the contact information for your family member, we will not actually email the video. In fact, we returned the contact information to you. We were only interested to see how your behavior would be affected if you **thought** we were sending the video to them.

If you have any comments or questions about the study, you may contact Jessa Hogarth at umhogarj@myumanitoba.ca or Dr. Jessica Cameron at Jessica.Cameron@umanitoba.ca.

If you feel you would like to discuss any strong feelings or emotions that may have come up for you today, please contact the University of Manitoba Student Counselling Centre either by phone or in person at 474 University Centre, 204-474-8592. Alternatively, you could contact the Clinic Community Health Centre at 204-784-4090.

Online resources:

Self-esteem Games <http://selfesteemgames.mcgill.ca>

Improving Self-esteem http://www.cci.health.wa.gov.au/docs/SE_Module%209_July%2005.pdf

Building Self-Confidence <http://selfdeterminedlife.com/build-self-confidence/>

If you would like further information about research related to the present study, please refer to:

Larson, D.G., & Chastain, R.L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology*, 9(4), 439-455.

Cameron, J. J., Stinson, D. A., Hoplock, L., Hole, C., & Schellenberg, J. (2016). The robust self-esteem proxy: Impressions of self-esteem inform judgments of personality and social value. *Self and Identity*, 15(5), 561-578.

Thank you for your participation!