Understanding Differentiation of Self Through an Analysis of Individuality and Togetherness.

DISSERTATION

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By

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Abstract

Bowen (1966) created Family Systems Theory as a way to expand the comprehension of human behavior by using individual and familial factors. One concept nested within this theory is Differentiation of Self (DoS). DoS is a universal and multifaceted concept that pertains to one’s ability to use thoughts as opposed to emotions (intrapersonal DoS), and the interplay between individuality and togetherness (interpersonal DoS; Kerr & Bowen, 1988). Current instruments that measure DoS, such as the Differentiation of Self Inventory (Skowron & Friedlander, 1998) place individuality and togetherness on the same continuum, which has limited the understanding of DoS.

Bowen (1966) hypothesized that one’s level of differentiation is directly correlated with one’s anxiety (Skowron & Friedlander, 1988), and could contribute to the presentation of symptoms, such as an alcohol use disorder (Bowen, 1974). However, the current understanding of Bowen’s (1966) concept of DoS is limited, in that individuality and togetherness are treated as if they are on the same continuum, where individuality is a more desirable than togetherness. The belief that DoS is on one continuum removed the ability to study the positive aspects of togetherness.

To further the research of DoS, an instrument, called the Differentiation of Self Quadrant Inventory (DSQI) was created that separated healthy and unhealthy
individuality and togetherness, creating four subscales. The DSQI was piloted and tested for reliability, convergent validity, predictive validity, and discriminant validity. From these analyses, an instrument was created that was significantly related with another measure of DoS, and successfully predicted alcohol use and consequences associated with alcohol use. These findings not only supported Bowen’s (1974) theory that low DoS is significantly related to alcohol use, but expanded the understanding of DoS by including healthy togetherness.
Dedication

This dissertation is dedicated to my mom and dad. Without their constant support and patience, I would not be where I am today.
Acknowledgments

I wish all I had to say in this section would be something absurd about all the people that were against me, but that would be a complete lie. I wish I could say something like, “Here’s to all my haters out there. Congratulations, you played yourselves,” or “Look at your hands, they are full of hinges.” I have honestly experienced nothing but support through the people I have had in my life and I cannot express how grateful I am to everyone in my life that has made this moment possible. Despite my own self-doubt, everyone believed I could finish this. When I think back to how I got the drive and the strength to accomplish this feat, I can honestly say that I had nothing but positive vibes from all my friends and loved ones. This section is to acknowledge my parents, family, friends, and educators, I appreciate you.

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To the other parts of my family, all of you hold a special place in my heart, and I thank you all. My sister, Monica, who is determined to keep the family together. My cousins, Ania and Ewa who watched me for hours long and endured all my overly expressive hugs. While not a genetic part of my family, to Asia, for helping me out on Friday nights. To my endless amount of Cioca’s, Hania, Helena, Ala, Basia, and Krysia, who were always tough and caring. My Wujek Edwin, who is actually my godfather, but always pushed education. To the other parts of the Holowacz clan, I wish we were closer. Lastly, to my Babcia or Babunia, you passed away so long ago, but you always showed me love and care.

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To my advisor, Suzanne, who I had already mentioned. Yes, I will say your name twice because this would not be possible without you. It took me about five years and some bumps along the way, but the dissertation was finally completed. You were there when I was being unauthentic as a therapist, and you were there when I was being too hard on myself in my dissertation. You really served as a guide, and I will forever be grateful for that.

I have thought about this acknowledgements section for a long time, and often fantasized about completing it. I can honestly say that I touched on almost everyone, but I am human, and forgetful. Which reminds me, special shout out to my pets current and past: Gucci Cat, Machine Gun Kitty, Sprinkles, Rocky, and Mickey. So please know that if your name is not here, it is not a slight, I do not think you are a hater, it is simply me being forgetful and human. Thank you all for being a part of this.
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Publications

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Fields of Study

Major Field: Human Development & Family Science
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Chapter 1: Introduction

The purpose of this study was to expand the understanding of Bowen’s (1966) Family Systems Theory (FST) with the creation of a new instrument that measures differentiation of self (DoS). The main premise driving FST is that human behavior, thought, and emotion cannot be understood through the context of an individual alone; rather, it must be understood and studied through the context of relationships, such as the family. One particular concept, DoS, had both, individual (intrapersonal) and relational (interpersonal) components. Intrapersonal DoS is the ability to use thoughts as opposed to emotions in order to respond to outside stimuli (such as an argument). Interpersonal DoS, is the amount of emotional autonomy an individual has within relationships. Emotional autonomy is one’s ability to have independent thoughts and emotions within the context of a relationship. The ability to remain an individual within a relationship is important because it represents the interplay between two life forces, individuality (having different thoughts and emotions than those around you) and togetherness (having similar thoughts and emotions to those around you). For the purposes of this study, thoughts and emotions will be used to expand the understanding of the individuality and togetherness life forces, respectively. Although there have been several attempts to assess inter- and intrapersonal
DoS with self-report measures, these measures have consistently overlooked the positive impact of the togetherness life force.

Kerr & Bowen (1988) proposed that those who are unable to maintain their individuality within a relationship would fuse in relationships creating anxiety which would need to be alleviated. To alleviate this anxiety, the relational system would organize around symptoms which would allow the individuals in the relationship some level of individuality. Bowen (1974) argued that one symptom in particular, disordered alcohol use, was a clear example that the inability to express individuality can lead to the presentation of that particular symptom. Bowen provided an example of a family member who sacrificed themselves for the entire group, and was unable to express his/her own thoughts and emotions. To achieve emotional distance from his/her family, the person would drink, and it would allow them to feel more at ease with their relationship, and express their individuality. Unfortunately, the family would organize themselves around this symptom, and expect the symptom bearer to change. The anxiety that the symptom bearer only became more intense, because he/she wanted to keep their individuality through drinking, but also wanted to keep the family together. Unfortunately, this tension and anxiety is difficult to change or lift unless the patterns of behavior are uncovered and DoS is specifically focused on in therapy.

While Bowen (1974) hypothesized that disordered alcohol use was significantly related to DoS, there has only been one study which linked alcohol use to low levels of DoS (Thorberg & Lyvers, 2006). DoS was measured by the Differentiation of Self Inventory (DSI; Skowron & Friedlander, 1998). The DSI, and other instruments have
placed an emphasis on the positive impact of individuality while ignoring the positive impact of togetherness. This distinction is especially important when attempting to understand interpersonal symptoms, such as disordered alcohol use. It is hypothesized that a new instrument can be created that assesses positive and negative impacts of the needs for individuality and togetherness. It is also expected that healthy individuality and togetherness would be negatively related to alcohol use disorder while unhealthy individuality and togetherness would be positively related to alcohol use and consequences associated with alcohol use.

This chapter will present the theoretical foundation and importance of the study. It will provide an understanding of FST, Bowen’s (1968) systems theory, specifically addressing DoS, and how disordered alcohol use could be a symptom of low DoS. After this foundation has been established, the research hypotheses will be presented, and an overview of research design and methodology will be discussed.

Family Systems Theory

Bowen (1966) attempted to further the understanding of human behaviors through the creation of his version of family systems theory (FST). Bowen proposed that one cannot understand the behaviors of an individual within a vacuum. Instead, one must view the person’s behaviors within the context of the behaviors, thoughts, and emotions of his/her family. If the person’s behavior is placed within the context of the family, one can better understand the function, or purpose, certain behaviors play within the larger system. Furthermore, these behaviors are to be understood as dynamic to one another, as one family member’s behavior can influence another family member and vice versa,
creating a circularity of sorts. To further solidify FST, Bowen created the concept of DoS, which is both, individual and relational in nature. On an individual level, it is the ability to differentiate thoughts from emotions, and use thoughts to inform responses to stimuli. On an interpersonal level, it is one’s ability to be part of important relationships while also having some sense of autonomy.

**Intrapersonal Differentiation of Self.**

Intrapersonal DoS is the ability to not only separate thoughts from emotions, but also have the ability to utilize thoughts to provide a response. Bowen proposed that all people live in a sea of chronic anxiety. Those who are able to think and use problem-solving thought processes while in this anxiety have a high level of DoS. However, those who are unable to use thought, and continue existing in the anxiety have a low level of DoS. This anxiety becomes even greater with the presence of adverse stimuli, such as a familial argument. Those who are unable to use their thoughts in the presence of this stimuli are more likely to give into their emotions, and experience the anxiety as all consuming. As a reaction to this stimulus, Kerr & Bowen (1988) proposed that individuals with low DoS would express emotional reactivity and cutoff. Emotional reactivity is when one explodes as a reaction to a stimulus, such as yelling. Cutoff is when one removes themselves from the argument entirely, and does not acknowledge the stimulus. Kerr and Bowen argued that emotional reactivity and cutoff are components of low DoS, and the result of being unable to engage in thought and being stuck in emotions. However, they did not mention the risks associated with the inability to engage their emotions.
Interpersonal DoS

Interpersonal DoS is based upon the assumption that everyone experiences and exists within a sea of tension, a push and pull, to address their needs for individuality and togetherness. This tension, or anxiety, is universal. The need for togetherness refers to the urge to have similar thoughts and emotions as those with whom one is close, such as family members, partners, as well as friends. The need for individuality is the need to have thoughts and emotions that are independent of others. Since the need for togetherness is a need for similarity, Bowen’s concern was that one would give up their own individuality for the sake of togetherness. This sacrificing leads to the inability to express individuality and results in the presentation of behaviors, or symptoms, as a way to express that individuality.

Combining Individuality, Togetherness, Thoughts, and Emotions

Bowen’s (1966; Kerr & Bowen, 1988) theory and propositions have been misinterpreted to mean that individuality and togetherness, as well as thoughts and emotions are on one continuum. Specifically, both emotions and togetherness have been viewed as the negative, less desirable portion of the spectrum while individuality and thoughts are viewed as the more desirable portion of the continuum. However, Bowen suggested that emotional reactivity and cut-off seemingly opposite ends of the continuum of togetherness and individuality were actually both at the low end of differentiation. Thus, it is my contention that individuality and togetherness need to be viewed as two continua, with unhealthy and healthy levels of each. To expand this understanding of both individuality and togetherness I propose to examine the healthy and unhealthy
aspects of both, and to include an analysis of thoughts and emotions. To test the newly created instrument, convergent validity, predictive validity, and discriminate validity are addressed. To determine convergent validity, the instrument was used as an indicator of emotional reactivity and cut-off. To determine predictive validity, the instrument was used as a predictor of positive and negative consequences of alcohol use, as well as level of alcohol use. Lastly, discriminant validity was determined by testing the association between the instrument and social desirability. Research Hypotheses

This study aimed to pilot the Differentiation of Self Quadrant Inventory (DSQI) by testing its reliability, as well as convergent, predictive, and discriminant validity. These tests were evaluated by the following hypotheses.

It is hypothesized that a reliable instrument that measures DoS can be created that separates DoS into four factors: healthy individuality (HI), unhealthy individuality (UI), healthy togetherness (HT) and unhealthy togetherness (UT).

It is hypothesized that the relationship between the healthy subscales (HI and HT) will be positively related while the unhealthy subscales (UI and UT) will be negatively related.

It is hypothesized that the relationship between healthy and unhealthy subscales (HI and UI, HI and UT, HT and UT, and HT and UI) should be significant and negative.

It is hypothesized that UI of the Differentiation of Self Quadrant Inventory should correlate positively with cutoff while UT correlates positively with emotional reactivity, both are indicators of the lack of DoS, while HI and HT will correlate negatively with emotional reactivity.
It is hypothesized that a structural model can be tested where UI, UT, HI and HT are significantly associated with alcohol use, and consequences of alcohol use.

It is hypothesized that HI, UI, HT and UT will not be significantly related to social desirability.

Significance

There are several reasons that having a better assessment of differentiation of self is important. First, Bowen’s (1966) FST is used as a framework for intervention. The goal of that intervention is to increase DoS. Without a standardized and reliable measure of DoS we don’t know that this is occurring, except via clinician ratings. Second, Bowen’s theory is one of the most comprehensive intergenerational theories available that includes family level and individual level processes. This theory has a great potential for research, unfortunately without the ability to reliably measure DoS, conducting research on Bowen’s theory is stymied. Lastly, Bowen’s FST has been critiqued because of its difficulty in measurement. The presence of an additional valid and reliable instrument could further support Bowen’s theory. Thus, the purpose of this dissertation was to pilot an instrument that would reliably and validly assess DoS by correcting some the shortcomings of the other instruments available to assess differentiation.
Chapter 2: Background and Significance

The purpose of this chapter is to illustrate the importance of the concept of DoS and the necessity to accurately measure it. DoS is a concept based in FST (Bowen, 1966) and has both intra and interpersonal components. The intrapersonal component of DoS is one’s ability to utilize thoughts as opposed to emotions while the interpersonal component is one’s ability to be emotionally autonomous within relationships. This understanding of DoS creates a tension where thoughts and emotions as well as individuality and togetherness are opposing life forces on the same continuum. However, it is possible that there are healthy and unhealthy parts of all of these aspects. DoS, both intra and interpersonal, are hypothesized to be universal, impacting multiple facets of people’s lives (Kerr & Bowen, 1988). DoS has been associated with psychiatric symptoms such as depression (Lal & Bartle-Haring, 2011), anxiety (Skowron & Friedlander, 1998), alcohol/substance use (Thorberg & Lyvers, 2006), and schizophrenia (Peleg & Arnon, 2013) as well as interpersonal symptoms, such as relationship satisfaction (Skowron, 2000). Unfortunately, the available measures of DoS have been criticized, and the validity of Bowen’s Theory has been brought into question (Miller & Anderson, 2004). To remedy the weaknesses of these instruments, a new scale was
constructed and then tested for validity and reliability. This new instrument was then critiqued and interpretations are presented.

Family Systems Theory

Bowen (1966) created FST as a way to conceptualize the processes driving human behavior. Bowen proposed that to better understand human behavior, one must explore individual factors as well as those within the family system. Bowen presumed that there was a circularity in the behaviors of family members, where they influence each other, and continue to build on each other. He was specifically interested in maladaptive patterns of behavior (also referred to as, “symptoms”) such as schizophrenia, depression, and alcohol use disorder (AUD). Bowen pioneered this theory with schizophrenic symptoms, and noticed how the family would organize itself around the person diagnosed with schizophrenia, or the symptom bearer. He argued that the family behaviors would then perpetuate the symptoms of schizophrenia, it was almost as if the family members were interconnected in the symptoms, and fed off of each other. In the same fashion, Bowen (1974) hypothesized a similar process for individuals who developed symptoms of AUD. He presented a process where a poorly differentiated person, with difficulty using thoughts and who was emotionally dependent upon his/her family, would use alcohol as a way to reduce his/her chronic anxiety. The family members, who may also be poorly differentiated react poorly to the drinker, which caused the symptom bearer additional anxiety, and then would express more intense symptoms in order to experience some sense of autonomy.
Bowen believed that he found a pattern in which the more intertwined the family members were, the more likely these symptoms presented themselves. However, the more the family system allowed for individuality among its members, the less likely these symptoms would exist. To solidify this interplay between being intertwined (togetherness) and individuality, Bowen created the concept of DoS.

**Measuring Differentiation of Self**

DoS is a family systems concept that contains intricacies and subtle nuances and is therefore difficult to define. Since it is a concept within FST, it contains both, intra and interpersonal dimensions. The intrapersonal dimension of DoS is the ability to separate thoughts and emotions during decision making. The most common, rudimentary definition of interpersonal DoS is the ability to achieve emotional autonomy from one’s Family of Origin (FOO). Emotional autonomy, is the ability to choose to be affected by the behaviors, thoughts, and emotions of relational partners (eg. FOO). In the previous example of the presentation of schizophrenic symptoms, family members that react to one another do not have a high level of emotional autonomy. They react to the stimuli presented by other members in an effort to continue a specific family dynamic. Kerr & Bowen (1988) proposed that those who are unable to achieve emotional autonomy from others are poorly differentiated, or have a low DoS. Those who are able to achieve emotional autonomy are well differentiated, or have a high DoS. Bowen had not expressed much concern for those who have high DoS. He believed that individuals, and families who have a high DoS are more likely to adapt successfully to stressors and experience lower levels of chronic anxiety. Therefore, most of his teachings revolved
around low DoS, and what would happen in families and individuals with low DoS. However, the process in achieving emotional autonomy is one that deserves a deeper understanding. It includes an interplay between the life forces of togetherness and individuality.

Kerr & Bowen (1988) presented DoS as the counterbalancing of two life forces. These life forces, or innate needs, are individuality and togetherness. Bowen defined individuality, as propelling, “an organism to follow its own directives, to be an independent and distinct entity” (pg. 64), and togetherness as propelling “an organism to follow the directives of others, to be a dependent, connected and an indistinct entity” (pg. 65). Therefore, individuality is being comfortable with one’s own thoughts, emotions, and behaviors, without concern that others may be different. Togetherness is having either your own, thoughts, emotions, and behaviors match those of others or vice versa.

The argument that is presented in this study is that people can interact with these life forces in both, healthy and unhealthy ways. For the purposes of this study, the terms concepts of individuality and togetherness were separated into healthy and unhealthy components. Healthy individuality is the ability to tolerate differences in relationship while unhealthy individuality is the pursuit of neglecting the thoughts and emotions of others. Healthy togetherness is the pursuit of finding similarity in relationships while unhealthy is forcing similarity within relationships by sacrificing oneself or forcing others to change.

Bowen presented individuality and togetherness as two forces that duel with one another, both drawing from the same pool of energy, forcing people to make a choice.
Bowen was highly concerned with those who placed too much emphasis on the togetherness force, those who gave themselves up for the benefit of the relationship. Specifically, Bowen stated that those who are unable to be emotionally autonomous from others are said to be in fused relationships, and engage in emotional reactivity and cut-off.

Fusion occurs in relationships when their members devote most of their energy for the benefit of the relationship at the expense of understanding their own thoughts and emotions. For example, those in a fused relationship focus on the togetherness of everyone in the relationship that everyone must be on the same page, and have similar thoughts and similar emotions. Similarly, the focus of a fused relationship is not necessarily engaging in thought, but rather to find a way to sustain the relationship at any cost. In this manner, those in fused relationships have low DoS, in that they are unable to utilize their thought processes in the context of the relationship. Unfortunately, this desire is unobtainable, as most people have a sense of individuality that needs to emerge. When this individuality force is not encouraged, those in the relationship find ways to preserve it, through emotional reactivity or emotional cut-off.

Unfortunately, this understanding of DoS seems to be unidirectional, with togetherness force being the genesis of fusion, and then fusion itself being the cause of emotional reactivity and cut-off. This assumption has placed individuality and togetherness on the same continuum, which has limited the understanding of the interplay between them. This has restricted previous research in understanding DoS. Furthermore, since individuality and togetherness seem to be on the same continuum, and there is an
assumption that a lack of autonomy is associated with symptoms, then togetherness has been viewed as the “negative” or “less desirable” portion of the scale.

For example, DoS is viewed as the emotional independence from one’s family of origin. As a direct result of this definition, clinicians and researchers have assumed that to achieve individuality, people need to forego the life force of togetherness, that it would be impossible to meet both needs simultaneously. However, Kerr & Bowen wrote, “Individuality as defined by family systems theory, in contrast [to the sociobiologist’s position], refers to the capacity to be an individual while part of a group” (p. 63). This assumed that one has the ability to tolerate both life forces, simultaneously, and not necessarily have to pick between the two. In addition, it also implies that one who is differentiated is not completely emotionally detached from their family system, there can still be a healthy degree of connection, a healthy form of togetherness. Unfortunately, none of the measurements created thus far have been able to validly measure DoS.

Instruments that measure DoS, such as the Differentiation of Self Index (DSI; Skowron & Friedlander, 1988), Differentiation in the Family System Scale (DIFS; Anderson & Sabatelli, 1992), and the Behavioral and Emotional Reactivity Index (BERI; Bartle & Sabatelli, 1995) all internalized the assumption that individuality and togetherness are not only on the same continuum, but that the life force for individuality is desirable, while togetherness is not. Since it is possible to be an individual within the context of a group, it should be possible to evaluate one’s ability to be a productive member of a group, or to have healthy togetherness. Therefore, the dimension of healthy
togetherness is one that is often overlooked and undervalued. This was remedied in this project through the inclusion of a healthy togetherness subscale.

The following section will review the existing instruments that purport to measure differentiation of self. The instrument will be described, evidence for reliability and validity will be discussed and a critique of the instrument will be provided.

**Differentiation of Self Inventory**

Skowron and Friedlander (1998) worked together to create the DSI. This instrument originally consisted of a total of 96 items, which were created to address thinking, feeling, autonomy, and intimacy. From this library of 96 items, four factors were identified with eigenvalues greater than 3.0. Only those items that had high loadings (> .40) were considered for future analyses, leaving a total of 43 items from the original 96 items. Based upon the items that were present in each factor, the factors were named Emotional Reactivity, I-Position, Reactive Distancing, and Fusion with Parents. These factors were revisited, and the items were adjusted to more comprehensively reflect Bowen’s theory. As a result, the items associated with Reactive Distancing were adjusted into Emotional Cutoff while Fusion with Parents was retooled into Fusion with others, creating a survey of 78 items. Of these 78 items, 43 items were kept and used for future analyses.

Skowron & Friedlander (1998) found that the DSI scale, in its entirety had good reliability (α = .88) and consisted of four subscales: Emotional Reactivity (α = .84), I position (α = .83), Emotional Cut-off (α = .82) and Fusion with Others (α = .74). Emotional Reactivity had items that asked the participant how likely they are to be
emotional, or explosive with others (eg. “People have remarked that I'm overly emotional”). The I-position subscale reflected one’s ability to be an individual and understand themselves (eg: “No matter what happens in my life, I know that I'll never lose my sense of who I am”). Emotional Cut-off contained items that expressed an inability to handle differences (eg: “My spouse or partner could not tolerate it if I were to express to him or her my true feelings about some things”). The Fusion with others subscale included items that pertain to one’s inclination to sacrifice self for the benefit of the relationship (eg: “I'm likely to smooth over or settle conflicts between two people whom I care about”).

The DSI has been shown to have construct validity by being significantly related to relationship satisfaction (Skowron, 2000; Lal & Bartle-Haring, 2011), anxiety (Skowron & Friedlander, 1998; Bartle-Haring, Glade, & Vira, 2005), alcohol use (Thorberg & Lyvers, 2006), and therapeutic outcomes (Knerr & Bartle-Haring, 2010). Despite these strengths, there are some weaknesses within the measure that may need to be improved upon.

One weakness of the DSI (Skowron & Friedlander, 1998) is that it did not address healthy togetherness. The subscales that were used in the DSI mimicked the current understanding of individuality and togetherness by placing them on the same continuum. For example, items such as, “I'm likely to smooth over or settle conflicts between two people whom I care about” implies that they want to have similar thoughts, or a lack of conflict as inherently a poor trait. However, it is possible that this action, done when
appropriate, is not necessarily indicative of fusion. In addition, there did not seem to be any subscales that reflected one’s ability to display togetherness in a healthy fashion.

Secondly, the items on the DSI (Skowron & Friedlander, 1998) have inconsistencies. The DSI has items that refer to one’s relationship with one’s spouse, as well as relationships in general. For example, “I am able to say no to others even when I feel pressured by them” and “When I’m with my spouse or partner, I often feel smothered.” The combination of these different relationships can provide an unclear understanding of the participant’s DoS. This is because DoS is more accurately reflected in relationships within intimate relationships, or one’s FOO, and not necessarily relationships in general (Kerr & Bowen, 1988). Therefore, these relationships should have been measured separately from one another, or all items should have been directed towards one’s FOO.

*Differentiation in the Family System Scale*

Anderson & Sabatelli (1992) worked together to create the Differentiation in the Family System Scale (DIFS). The DIFS is an 11 item, 5-point Likert-type scale (1-Never to 5-Always) that asks the participant to determine the frequency of a particular behavior between two members of a family system. The main focus of this scale was to measure DoS as it pertained to each relationship within the family system. Therefore, each of the 11 items were constructed so that they could be asked about one person’s perspective of multiple relationships. For example, Item 2 read, “My ____ responds to ____ feelings as if they have no value” (Anderson & Sabatelli, 1992). Each blank can be replaced with different people, such as, “father,” “mother”, or “I”. By structuring the items in this
fashion, the researchers were able to measure the level of differentiation within each relationship. In addition to being focused on multiple relationships, the items focused on behaviors that were meant to be indicative of differentiation of self. The instrument showed construct validity through being related to schizophrenic symptoms (Peleg & Arnon, 2013) and depression (Sabatelli & Anderson, 1991).

The DIFS (Anderson & Sabatelli, 1992) does not completely account for healthy togetherness in its items. Instead, there seems to be a focus on unhealthy togetherness. For example, “tells my mother what she should be thinking.” This item represents unhealthy togetherness because it focuses on the proclivity to have similar thoughts, but this family member is also forcing the thoughts of other members, which places emphasis on unhealthy togetherness. The remaining items seem to focus primarily on healthy individuality without addressing healthy togetherness.

Behavioral and Emotional Reactivity Index

The BERI (Bartle-Haring & Sabatelli, 1995) measured emotional reactivity, a component of DoS. This instrument presents the participant with ten unique scenarios that relates to one of his/her parents embarrassing him/her. One example of a scenario is, “Sometimes caregivers can make us feel upset or uncomfortable (e.g., angry, embarrassed, ashamed, etc.) by intruding in our personal affairs, like asking personal questions about the people we are dating and/or giving us suggestions about what friends we should or should not have.” Then the respondent rates “how likely” they are to engage in one of four responses including, lose it, withdraw, shut out, or counterattack. Participants are provided with a 4-point Likert scale, where higher levels indicated lower
levels of emotional reactivity. For example, the scale ranges from “Very much like me” (1) to “Not at all like me” (4). During the piloting of the BERI, it was shown to have a significant and positive correlation with the Differentiation in the Family Systems Scale (DIFS; Anderson & Sabatelli, 1992). The items on the BERI were shown to have excellent reliability when the scenarios focused on mothers (Cronbach α = .93) and fathers (Cronbach α = .93).

While the BERI provides a good measure for symptoms of fusion, such as emotional reactivity and cut-off, it does not necessarily capture DoS as a whole. Instead, its main focus is the presence or absence of behaviors in response to different scenarios. While this adequately measures these particular behaviors, the lack of such behaviors does not automatically indicate that the participant can tolerate the needs for individuality and togetherness simultaneously. For example, some participants may not have experienced that particular scenario, and may not be able to imagine how they would respond. Therefore, it may be that this person appears to have a low level of emotional reactivity, but it could also mean that they do not have a very vivid imagination.

Secondly, the BERI does not measure DoS directly. Instead, the BERI measures the likelihood of certain behaviors in different scenarios. The lack of these behaviors, such as emotional reactivity and cut-off, is used as a proxy for measuring DoS. It is therefore possible that the BERI is more accurately measuring low DoS, or unhealthy forms of individuality and togetherness. Unfortunately, a lack of these behaviors may not indicate the presence of healthy individuality and togetherness.
Validity Testing

Given these shortcomings, a new measure of DoS, named the Differentiation of Self Quadrant Inventory (DSQI), was developed and piloted for this dissertation. To determine if the instrument measures the appropriate construct, multiple forms of validity were assessed, including convergent, predictive, and discriminant validity. These particular forms of validity were presented in DeVellis (2012) and were used to determine if the construct was being measured.

The purpose of determining convergent validity is to see if the newly created scale is significantly related to previously established instruments that measure the same construct (DeVellis, 2012). For example, the DSQI contained both, intra and interpersonal components of DoS. Kerr and Bowen (1988) argue that emotional reactivity and cut-off are manifestations of low DoS. If the DSQI measures DoS, then there should be a correlation between the different subscales of the DSQI and different forms of emotional reactivity. The Behavioral and Emotional Reactivity Index (BERI) is an instrument that measures emotional reactivity. It would be expected that HI and HT are negatively related to forms of emotional reactivity and cut-off, but that UI and UT are positively related to emotional reactivity and cut-off.

The purpose of predictive validity is to determine if the newly created scale is related to a different construct (DeVellis, 2012). For example, Bowen (1974) hypothesized that low DoS could be predictive of disordered alcohol use because it provides the symptom bearer with a way of emotionally distancing him/herself from family members or other relationships. Therefore, it would be expected that the DSQI
could predict disordered alcohol use. However, Bowen (1974) was not very clear with his definition of this condition. Therefore, the author deemed it necessary to look at previously developed scales as a proxy for disordered alcohol use. Since Bowen was mostly concerned about the interpersonal impact of alcohol use, it seemed fitting to use positive and negative consequences associated with alcohol use as proxies for disordered alcohol use. The positive consequences could mirror some of the emotionally distancing aspects of alcohol that Bowen proposed. For example, alcohol use may alleviate the person’s overwhelming concern for togetherness and allow them to experience individuality. This could be represented as he/she reporting that alcohol allows others to like him/her. The negative consequences could be used as a proxy for disordered alcohol use, where those with a low DoS would be more likely to continue drinking, despite having negative side effects. Lastly, the quantity of alcohol one drank would also be higher in someone with disordered alcohol use. It was expected that these would be negatively related to the healthy subscales while positively related to the unhealthy subscales.

The purpose of discriminant validity was to ensure that the scale did not measure other constructs that are closely related (DeVelis, 2012). Since the DSI was found to be related to social desirability (Skowron & Friedlander, 1998), social desirability’s relationship to the DSQI could be used to determine discriminant validity. Social desirability is one’s inclination to provide the researcher’s with certain answers in order to appear more socially desirable (Strahan & Gerbasi, 1972). Therefore, showing support
that the DSQI is not related to social desirability provides support that it is a different construct.

Hypotheses

1) To address the shortcomings of other instruments and provide evidence of validity for the DSQI, the hypotheses for this study were the following: It is hypothesized that a reliable instrument that measures DoS can be created that separates DoS into four factors: healthy individuality (HI), unhealthy individuality (UI) healthy togetherness (HT) and unhealthy togetherness (UT).

   a. It is hypothesized that the relationship between the healthy subscales (HI and HT) will be positively related while the unhealthy subscales (UI and UT) will be negatively related.

   b. It is hypothesized that the relationship between healthy and unhealthy subscales (HI and UI, HI and UT, HT and UT, and HT and UI) should be significant and negative.

2) It is hypothesized that UI of the Differentiation of Self Quadrant Inventory should correlate positively with cutoff while UT correlates positively with emotional reactivity, both are indicators of the lack of DoS, while HI and HT will correlate negatively with emotional reactivity.

3) It is hypothesized that a structural model can be tested where UI, UT, HI and HT are significantly associated with alcohol use, and consequences of alcohol use.

4) It is hypothesized that HI, UI, HT and UT will not be significantly related to social desirability.
Chapter 3: Methods

Sample

Seventy (38.7%) participants were male and 111 (61.3%) were female for a total of 181 individuals with an average age of 22.01 (SD = 5.78). Institutional Research and Planning (2015) at the Ohio State University (OSU) reported that their enrollment consisted of 50.75% males and 49.25% females. Therefore, the females were oversampled in the current study. The ethnic distribution of participants was 76.2% White or Caucasian (n = 138), 3.3% Black or African America n (n = 6), 12.2% Asian (n = 22), 1.1% Latino (n = 2), 5.5% Multiple Race (n = 10), and 1.5% identified as other (n = 3). Institutional Research and Planning (2015) at OSU reported that their enrollment consisted of 81.82% of Caucasian students, 5.35% African American, 6.02% Asian American, 3.79% Hispanic, 2.82% multiple race, and .20% who identified as other. The study’s sample therefore contained a greater amount of non-Caucasian races/ethnicities. The study’s sample contained a greater percentage of Asian, multiple race, and those who identified as, “other” with a lower percentage of African Americans and Hispanics. Participants were asked to select how many full years of undergraduate education they had completed and selected less than one year (22.7%), one year (14.3%), two years (13.3%), three years (17.7%), four years (23.2%), and more than four years (8.8%).

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Students were asked if they had ever participated in substance abuse treatment (2.2%), Alcoholics anonymous or SMART (2.7%), Al-anon or Alateen (1.6%), or any form of mental health counseling (28.6%).

Procedure

Institutional Review Board for Behavioral Sciences approved this research prior to recruitment at OSU. The University Registrar provided a list of 900 randomly selected undergraduate students with email addresses and these students were provided a link to the survey that was constructed in Qualtrics (2015). The students were informed that they would receive a $5 Amazon.com gift card as compensation for the survey. A series of solicitation e-mails were sent to groups of these students on a monthly basis for a total of five months, beginning in September 2015 and ending in January 2016. On average, participants took 26 minutes to complete the survey, which ranged from 6.26 hours to 6.85 minutes. It is the author’s assumption that participants may have left the survey open in their web browser for long periods of time, which is how some students took multiple hours to finish the survey. Upon completion of the survey, participants entered their email address so that compensation could be sent. The email address provided by the participant was not attached to the data that was provided in the survey.

A total of 202 participants (22.44% response rate) began the questionnaire. Of these 202 participants, nine (4.45%) were removed because they did not complete any items on the survey. An additional eight (3.96%) were removed because they only completed the demographic questionnaire and did not complete any of the instruments. A
total of 185 participants took the survey past the initial demographic form with a total of 17 (8.42%) being removed due to incomplete data. Of those 185, four participants (2.16%) were removed because they reported being from a single parent household because it could confound the scores on the BERI. A total of 181 participants were used to analyze the DSQI.

Measures

A total of nine questionnaires were used in this study. The first questionnaire inquired about demographics, such as age, sex, and history of mental health treatment. The Differentiation of Self Quadrant Inventory (DISQ), was piloted in this study and measured individuality and togetherness. The BERI (Bartle-Haring & Sabatellii, 1995), was used as a validity check of the DSQI. The Children of Alcoholics Screening Test-6 (CAST-6; Hodgins, Maticka-Tyndale, & El-Guebaly, 1993), was used to determine the presence of an alcoholic parent. The Generalized Anxiety Disorder 7-item (GAD-7; Spitzer, Kroenke, Williams, & Lowe, 2006) scale assessed current levels of anxiety. The Alcohol Use Disorder Identification Test-10 (AUDIT-10; Saunders, Aasland, Babor, de la Fuente, & Grant 1993) determined the current level of alcohol use. The Brief Young Adult Alcohol Consequences Questionnaire (BYAACQ; Kahler, Strong, & Read, 2005) assessed the negative consequences associated with alcohol use. The Positive Drinking Consequences Questionnaire (PDCQ; Corbin, Morean, & Benedict, 2008) measured the positive consequences associated with alcohol use. Lastly, the Marlowe-Crowne Social Desirability Scale Form X1 (SDS; Strahan & Gerbasi, 1972) determined if the DSQI is heavily influenced by social desirability. All measures can be found in Appendix C.
Differentiation of Self Quadrant Inventory

The first instrument, the DSQI was created and piloted in this project and was designed to measure levels of healthy individuality (HI) unhealthy individuality (UI), healthy togetherness (HT) and unhealthy togetherness (UT). It had a 4-point Likert scale with responses ranging from, “Not at all like me” (1) to “Very much like me” (4). All items in the DSQI can be found in Appendix C, means and standard deviations of each item can be found in Table 2. To minimize confounds, and provide the participant with a focal point during the questionnaire, the term (“important other”) was created. Important other was defined as, “people that can potentially play an influential role in your life, such as your parents, family, significant others, as well as friends.”

To establish face validity, all items were created by using concepts found within the original source material for DoS (Bowen, 1966; Kerr & Bowen, 1988). All items were created by the author and then later reviewed by the author’s advisor, and fellow graduate students in the Couple and Family Therapy program at OSU.

Healthy Individuality. Kerr & Bowen (1988) reported that individuality is one’s ability to be connected within the context of the relationship. This implies that one has the ability to have their own thoughts, emotions, and still appreciate the differences that others can possess. Therefore, when this subscale was devised, there were two focal points when making the items for HI. The items were created to reflect one’s ability to be an independent person, while still being connected. For example, “I appreciate opinions different than my own” and, “I am an independent person.” In addition, the intrapersonal
component of DoS, used to expand HI, was meant to measure one’s ability to be connected to one’s thoughts (e.g. “I am able to communicate my thoughts”).

*Unhealthy Individuality.* Kerr & Bowen (1988) did not specifically address an unhealthy individuality. Rather, they described a term called cut-off. Cut-off is one’s reaction to a stimulus, where he/she actively separates him/herself from an aversive stimulus, such as an argument. In addition, the construct of unhealthy individuality was conceptualized to contain a pursuit of individuality through actively ignoring those who are close to you. Therefore, this subscale included items that assessed the concept of cut-off (e.g., “During arguments, I often leave the room), actively ignoring others, (e.g., “I do not let the thoughts of important others impact me), and actively ignoring their own emotions, (e.g., “I can control my own emotions).

*Healthy Togetherness.* The togetherness life force is one that urges people to find commonality within a group (Kerr & Bowen, 1988). A healthy aspect of this construct was conceptualized to include an appreciation of similarity, without sacrificing oneself. In addition, being in touch with one’s emotions was also added into this subscale. Items such as, “I understand the emotions of others” and “I enjoy being emotionally close to others” were used to reflect the urge to be connected in a positive way.

*Unhealthy Togetherness.* The subscale of UT was meant to reflect the negative portions of togetherness, such as sacrificing oneself for the benefit of a relationship. It also seemed that another concept that would be connected with unhealthy togetherness would be emotional reactivity, and difficulty in using thoughts during emotional experiences (Kerr & Bowen 1988). Items such as, “I feel good about myself only if
important others like me” and “I am willing to change my opinions to suit others” were used to measure one’s tendency to negatively impact themselves for the sake of a relationship. Other items, such as, “During arguments with important others, I become overwhelmed by my emotions” were meant to measure emotional reactivity.

*Healthy Individuality.* Items regarding healthy individuality pertained to one’s ability to identify his/her own opinion, such as, “I appreciate opinions different than my own” Unhealthy individuality items focused one’s need to be completely separate from those around them, such as, “I do not let the emotions of important others impact me.” The items regarding healthy togetherness focused on one’s ability to be close to others, such as, “I enjoy being emotionally close to others.” Lastly, unhealthy togetherness focused on one’s need to sacrifice him/herself for others, such as, “I am willing to change my opinions to suit others.”

*Behavioral and Emotional Reactivity Index*

The BERI (Bartle-Haring & Sabatelli, 1995) was used to validate the DSQI. The BERI measures emotional reactivity, a component of DoS. This instrument presented the participant with ten unique scenarios that relate to one of his/her parents embarrassing him/her. One example of a scenario is, “Sometimes caregivers can make us feel upset or uncomfortable (e.g., angry, embarrassed, ashamed, etc.) by intruding in our personal affairs, like asking personal questions about the people we are dating and/or giving us suggestions about what friends we should or should not have.” Then the respondent rates “how likely” they are to engage in one of four responses including, lose it, withdraw, shut out, or counterattack. Participants are provided with a 4-point Likert scale, where higher
levels indicated lower levels of emotional reactivity. For example, the scale ranges from “Very much like me” (1) to “Not at all like me” (4). The items on the BERI were shown to have excellent reliability when the scenarios focused on mothers (Cronbach’s $\alpha = .93$) and fathers (Cronbach’s $\alpha = .93$).

Current Sample. The scores on the BERI were found to be have excellent reliability ($M = 236.34$, $SD = 43.54$; Cronbach’s $\alpha = .961$). The means, standard deviations, and cronbach’s alpha for each subscale can be found in Table 7. The scores that reflected one’s relationship with their father had excellent reliability for both counterattack ($M = 29.65$, $SD = 8.21$; Cronbach’s $\alpha = .91$), lose it ($M = 34.09$, $SD = 7.36$; Cronbach’s $\alpha = .91$), and withdraw ($M = 27.39$, $SD = 8.54$; Cronbach’s $\alpha = .90$) subscales and good reliability for shutout ($M = 25.70$, $SD = 8.00$; Cronbach’s $\alpha = .81$) subscales. The scores that reflected one’s relationship with his/her mother had excellent reliability for the lose it ($M = 34.45$, $SD = 7.07$; Cronbach’s $\alpha = .91$) subscale and good reliability for withdraw ($M = 27.89$, $SD = 8.23$; Cronbach’s $\alpha = .88$), counterattack ($M = 30.72$, $SD = 7.45$; Cronbach’s $\alpha = .88$), and shutout ($M = 26.50$, $SD = 7.88$; Cronbach’s $\alpha = .87$) subscales.

Children of Alcoholic Screening Test-6

The CAST-6 (Hodgins, Maticka-Tyndale, & El-Guebaly, 1993) is a 6-item scale that presents the participants with binary questions referring to their childhood experiences with their parents and possible alcoholism. It is a shortened version of the Children of Alcoholics Screening Test (Jones, 1983). In the CAST-6, a score of three or higher indicates that one may be a child of an alcoholic. In a sample of undergraduates,
the items on the CAST-6 were found to have good reliability (Cronbach’s $\alpha = .86$). Using this recommended cut-off score, the CAST-6 was shown to have 97% agreement with the full length CAST (Hodgins, Maticka, El-Guebaly, & West, 1995).

*Current Sample.* The CAST-6 was found to have a high reliability (Cronbach’s $\alpha = .91$). A score of three or more indicated that this participant was potentially a child of an alcoholic. Thirty-three participants (20.37%) reported a score of three or more, suggesting that they may be a child of an alcoholic. One hundred and twenty nine participants (79.63%) reported a score of two or less, indicating that they may not be the child of an alcoholic.

*Generalized Anxiety Disorder 7-item Scale*

The GAD-7 (Spitzer, Kroenka, Williams, & Lowe, 2006) is a 7-item, 4-point Likert scale questionnaire that assessed the presence and severity of Generalized Anxiety Disorder (GAD). The survey asked participants how often they have had symptoms of anxiety within the past two weeks, such as being anxious or having difficulty relaxing. Scores can range from 0 (not to all) to 3 (Nearly every day) and are totaled. Any participant who received a GAD-7 score of 10 or more suggested a possible diagnosis of GAD. The GAD-7 was shown to have excellent reliability (Cronbach’s $\alpha = .92$). It was also shown to have convergent validity with the Beck Anxiety Inventory because they were significantly and positively correlated with one another ($r = .07$).

*Current Sample.* In the current sample, the GAD-7 had excellent reliability (Cronbach’s $\alpha = .925$). A total of 161 participants completed the GAD-7, of which 27.3% had a score of 10 or greater (n = 52), suggesting a possible diagnosis of GAD. The
majority of participants (58.9%, n = 109) reported a score of nine or less. On average, participants reported 6.43 symptoms (SD = 5.68).

Alcohol Use Disorder Identification Test

The AUDIT-10 (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) is a ten item screening assessment for alcohol use disorder. The AUDIT-10 has items that assessed levels of alcohol consumption (three items; 5-point Likert scale), drinking behavior (three items; 5-point Likert scale), adverse reactions (two items; 5-point Likert scale) and alcohol-related problems (two items; 3-point Likert scale). All 4-point Likert scale items asked the participant how often they have engaged in that particular activity, and ranges from 0 (Never) to 4 (four or more times a week). The items that pertained to alcohol-related problems asked the participant if the particular problem ever happened (0), happened in the last year (1), or happened this year (2). The items on the AUDIT-10 have been shown to be a reliable measure (Cronbach’s α = .87; Rubin, et. al., 2006). An AUDIT-10 score of 8 has also been successfully used to distinguish non-drinkers from “alcoholics”, where 99% of the “alcoholics” had a score of 8 or more, and only .5% of the non-drinkers had a score of 8 or more (Saunders, Aasland, Babor, de la Duennte, & Grant, 1993).

Current Sample. The AUDIT-10 presented good overall reliability (Cronbach α = .87, M = 8.47, SD = 5.76) contains three subscales. Items 1 to 3 focused on one’s consumption and had good reliability (Cronbach’s α = .806; M = 3.7, SD = 2.62), items 4 to 6 focused on one’s dependence and had acceptable reliability (Cronbach’s α = .75; M = 2.33, SD = 1.49), and items 7 to 10 focused on one’s alcohol-related problems and
had questionable reliability (Cronbach’s $\alpha = .63$; $M = 2.37$, $SD = 2.34$). Items 1 to 8 are on a 5-point Likert scale where a score of 0 indicated that this never happened. A score of 1, 2, 3, and 4 indicated that this particular event occurred Monthly, 2 – 4 times a month, 2 – 3 times a week, and 4 or more times a week, respectively. Items 9 to 10 were on a 3-point Likert scale, where items were responses were scored with a 0, 2, and 4. A 0 indicated this particular event did not occur, a score of two indicated that the event did happen, but not within the past year. Lastly, a score of 4 indicated that the event occurred within the past year. To compute the AUDIT-10 score, items 1 to 8 were on a 5-point Likert scale that ranged from 0 to 4. Once the scores were totaled, a score below 7 indicated low-risk ($n = 81, 37.8\%$), a score between 8-15 indicated risky alcohol use ($n = 70, 42.4\%$), a score of 16-19 indicated harmful level ($n = 10, 5.4\%$), and a score of 20 or more indicated high-risk of alcohol dependence ($n = 4, 2.2\%$).

*Brief Young Adult Alcohol Consequences Questionnaire*

The BYAACQ (Kahler, Strong, & Read, 2005) is a 24-item questionnaire that asked if participants have had specific negative consequences in the past year. For example, “I have had a hangover (headache, sick stomach) the morning after I had been drinking. “ This model was adapted from the Young Adult Alcohol Consequences Questionnaire (Read, Kahler, Strong, & Colder, 2004), which was originally a 48-item survey that addressed the different consequences that young adults can have from alcohol use, such as social and physical consequences. The BYAACQ (Kahler, Strong, & Read, 2005) removed 24 items due to poor fit or redundancy to create a 24-item scale. The items had a Rasch model person reliability estimate of 0.82 indicating that the items have good
reliability. Concurrent validity was supported with a significant and positive relationship with the Rutgers’s Alcohol Problem Inventory ($r = 0.78$).

Current Sample. It was found to have excellent reliability (Cronbach’s $\alpha = .93$), with 39 participants (21.1 %) reporting none of the presented consequences within the past year. On average, participants reported that they encountered 4.80 of these scenarios within the last year ($SD = 4.99$).

**Positive Drinking Consequences Questionnaire**

The PDCQ; Corbin, Morean, & Benedict, 2008) is an 11-item, 5-point Likert scale that assesses the frequency that positive consequences associated with alcohol use occurred in the participant’s life within the past three months. For example, “I felt especially confident that other people found me attractive.” The answers range from 0 (0) to more than 10 times in the past three months (4). The PDCQ was shown to have good reliability (Cronbach’s $\alpha = 0.88$). The PDCQ was shown to have concurrent validity because it was significantly related to the Brief Comprehensive Effects of Alcohol Questionnaire ($r = .21$).

Current Sample. The PCQD had excellent reliability ($M = 23.06$, $SD = .77$; Cronbach’s $\alpha = .93$). It was found to be significantly and positively skewed (skewness = 1.32, $SD = .191$) and significantly leptokurtic (kurtosis = 1.82, $SD = .380$).

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Marlowe-Crowne Social Desirability Scale Form XI

The SDS (Strahan & Gerbasi, 1972) is a 10-item questionnaire that measures social desirability. The instrument contains statements that the participant rates as true or false. This was adapted from the M-CSD (Crowne & Marlowe, 1960). Fisher & Fink (1993) determined that the SDS provides the best fitting model when compared to other brief forms of the M-CSD. The SDS was found to be reliable for college males (KR20 = .70) and females (KR20 = .66).

Current Sample. After recoding the appropriate variables, it was found to have low reliability (Cronbach’s α = .469). The average participant reported, “Yes” to 4.71 items (SD = 2.00).

Missing Data and Drop Out

The entire dataset was scrutinized so that dropouts can be identified and removed. The data was informally inspected by the researcher in SPSS 22 (IBM, 2013). In addition, a Missing Value Analysis (MVA) and a Missing Completely at Random (MCAR) test were performed in SPSS 22 (IBM, 2013) for both, the DSQI and BERI. It was found that 19 participants did not complete the BERI, and for the purposes of this study were removed when convergent validity was tested. A total of 20 participants did not start, nor complete any of the outcome measures (AUDIT-10, BYAAC, PCDQ, GAD7, CAST6 and SDS). These participants were also removed with testing for predictive and discriminant validity.
Upon inspection, the DSQI was completed by 181 individuals. The missing response rates ranged from 0% - 2.2% per item, and had a nonsignificant MCAR ($\chi^2(368) = 400.87, p = .12$), suggesting the data is missing completely at random. When a CFA was conducted, full information maximum likelihood with the EM algorithm was used to account for the missing data.

While the data seemed to be missing at random in the DSQI, the remaining data seemed to have some concerns. The BERI consisted of 10 scenarios, each with four items that referenced each participant’s mother and father, totaling 80 items. When inspected, it was found that a total of 19 participants stopped responding at scenario eight. When a MVA was performed, the missing response rate for each item ranged from 5.0% to 15.5%. The MCAR test was nonsignificant ($\chi^2(1554) = 126.234, p = 1.00$), suggesting the data was missing at random. However, when the data was viewed, a total of 13 participants answered up to scenario three, and did not complete the remainder of the entire survey. An additional three completed up to scenario six, but did not complete the rest of the instruments. Lastly, one person completed scenario eight, but did not complete any additional instruments. This led to a total of 10.49% who dropped out of the survey and did not complete it. For the purposes of this study, the 20 participants that did not finish the BERI, nor had any data for the remaining six instruments, were removed from future analyses.

The remaining six instruments, the AUDIT-10, BYAAC, PCDQ, GAD7, CAST6 and SDS did not have as high of a dropout rate. The remaining 161 participants completed the AUDIT-10, while 160 students started and completed the BYAAC and
PCD, leaving one student that did not participate in the BYAAC, PCD, nor subsequent instruments. Another participant failed to start and complete the GAD7, CAST 6 and all subsequent instruments. Lastly, an additional participant did not start nor complete the SDS.

A total of 20 participants (11.50%) were removed from the SEM analysis because they only completed the DSQI, and none of the other instruments. Demographics for this sample are in Table 1. A total of 23 participants (12.70%) were removed from discriminate analyses because they did not start nor complete the SDS. To determine if the sample that did not complete the survey was significantly different from the sample that did, a regression was conducted that used the subscales of the DSQI, sex, and race/ethnicity as predictors of dropping out. There was a nonsignificant relationship (F (6, 167) = .470, p = .830), suggesting that those who dropped out did so at random.

The hypotheses were constructed with reliability and validity in mind. Hypothesis 1 was created to test the construction and reliability of the DSQI, and if the relationship between each subscale is in the expected direction. The second hypothesis tested for convergent validity, while the third and fourth hypotheses tested for predictive and discriminant validity, respectively.

The statistical analyses that were employed for the first hypothesis included a reliability analysis in SPSS 22 (IBM Corp, 2013), and a confirmatory factor analysis (CFA) in AMOS 22. Structural Equation Modeling (SEM) was conducted in AMOS 22 to test for convergent and predictive validity. Lastly, a linear regression was conducted in SPSS 22 to test for discriminant validity.
The CFA (Figure 1) and reliability analysis informed the researcher of which items were to be used in future analyses. To test for convergent validity, a SEM was created where the four subscales of the DSQI predicted the eight subscales of the BERI. To rest for predictive validity, the four subscales of the DSQI were used to predict the scores from the AUDIT-10, BYAACQ, and PDCQ while the CAST-6, GAD-7, and gender were used as covariates (Figures 3 and 4). Lastly, to test for discriminant validity, a linear regression was conducted using the four subscales of the DSQI as indicators of the SDS.
Chapter 4: Results

This chapter is dedicated to reporting the results of each of the four hypotheses presented earlier in the study. The results section will be divided into four parts, one for each hypothesis. The first section will be dedicated to reviewing instrument construction. Analyses that were conducted were used to determine instrument reliability, convergent validity, predictive validity, and discriminant validity. All tables and figures referred to in this chapter can be found in Appendices A and B, respectively.

Hypothesis 1: Instrument Construction and Reliability

The original measure was designed to have four subscales, HT (7 items), HI (7 Items), UT (8 items), and UI (10 items) for a total of 32 items. A total of three CFAs were conducted, each removing items to create a better fitting model. A description of items removed and fit indices for all three models can be found on Table 3. Estimates, and squared multiple correlations for each item and each model can be found in Table 4.

Once the items for each subscale were established, and agreed upon by a panel of marriage and family therapists, a CFA was performed. The items were placed onto their respective latent variables. To determine the fit of each item, the variance of each latent variable was set to one. The original model, had poor fit, with the following items not significantly loading onto their respective latent variables:
UI3 (p = 0.47), UI7 (p = 0.50), and UT4 (p = 0.47). In addition to items that had nonsignificant loadings, it was decided by the researcher that any items that had squared multiple correlations under .20 would be removed and any items that had low squared multiple correlations (Table 4). For a detailed description of the changes between each model, please refer to Table 3.

All but UI1, UI2, and UI3 were removed from the latent variable UI, which produced acceptable reliability (Cronbach’s α = .79; M = 7.32, SD = 2.52). The UT subscale included UT1, UT2, and UT3, and produced questionable reliability (Cronbach’s α = .68; M = 7.35, SD = 2.46). The HT subscale included HT1, HT2, HT3, and HT6, and had acceptable reliability reliable (Cronbach’s α = .70; M = 16.81, SD = 2.52). Lastly, the subscale of HS consisted of HI4, HI6, and HI7 and was found to have questionable reliability (Cronbach’s α = .63; M = 11.35, SD = 2.21). A final model was created that removed additional items that had squared multiple correlations below .20, which created the best fitting model (χ2 (59) = 105.481, RMSEA = .07, CFI = .93; Figure 1). The correlations between latent variables can be found in Figure 2.

The original model had poor fit (χ2 (458) = 1220.16, RMSEA = .10, NFI = .43, RFI = .34, IFI = .55, TLI = .45, CFI = .53; Table 3). Items that did not significantly load onto their respective factors were removed, as well as items for which the latent variable explained less than 20% of their variance. A second four factor model was created which was a better fitting model, with a moderate fit (χ2 (113) = 214.45, RMSEA = .07, NFI = .78, RFI = .70, IFI = .55, TLI = .83, CFI = .88; Table 3). A final model was created that removed additional items for which the latent variable explained less than 20% of their
variance, which created the best fitting model ($\chi^2 (59) = 105.48$, RMSEA = .07, NFI = .86, RFI = .78, IFI = .93, TLI = .89, CFI = .93; Table 3; Figure 1).

The items that remained in the measurement from the CFA were then tested for reliability. UI was found to have good reliability (Cronbach $\alpha = .79$) UT had a moderate reliability (Cronbach $\alpha = .68$), as did HI (Cronbach $\alpha = .63$) and UT (Cronbach $\alpha = .68$).

**Hypothesis 1a: Relationships between HT and HI, and UT and UI.**

It was hypothesized that HT and HI would be positively related and UT and UI would be negatively related. Figure 1 represents the final model for the CFA. There was a significant and positive relationship between HI and HT ($r = .39$, $p < .05$) and a significant and negative relationship between UI and UT ($r = -.42$, $p < .05$).

**Hypothesis 1b: Healthy and unhealthy Relationships.**

It was hypothesized all of the healthy subscales would be negatively related to all of the unhealthy subscales. The CFA results demonstrated a significant and negative relationship between HI and UT ($r = -.80$, $p < .05$), a negative and significant relationship between UI and UT ($r = -.42$, $p < .05$), and nonsignificant relationships between UI and HT ($r = -.16$, $p = .06$) as well as HT and UT ($r = .19$, $p = .053b$).

**Hypothesis 2: Convergent Validity**

Convergent validity was estimated through Structural Equation Modeling using the four subscales of the DSQI as predictors of the eight subscales of the BERI (Table 6; Figure 3). All subscales of the DSQI were correlated with one another (Table 6). In addition, the disturbances of each BERI subscale were correlated with its corresponding parental counterpart (e.g., The disturbance term for mother counterattack was correlated
with the disturbance term for father counterattack). The model had poor fit $\chi^2 (24) = 321.43 \,(p < .01; \, NFI = .74, \, RFI = .15, \, IFI = .75, \, TLI = .16, \, CFI = .74, \, RMSEA = .28)$. The endogenous variables of shut out (for mother and father) were not significantly related to any of the indicators. Furthermore, healthy individuality and togetherness were not significantly related to any of the BERI subscales (Table 5).

Hypothesis 3: Predictive Validity

Predictive validity was estimated by estimating a SEM in MPlus with the latent variable DoS (which predicted the different subscales of the DSQI) used to predict alcohol use, as well as positive and negative consequences associated with alcohol use. Anxiety, presence of an alcoholic parent, and gender were used as covariates (Figure 4). The initial model ($\chi^2 (29) = 126.84, \, p < .01, \, CFI = .79, \, TLI = .70, \, RMSEA = .15$) had poor fit. HI (estimate = .95, $p < .01$), HT (estimate = 1.00), and HI (estimate = -.95, $p < .01$) were all significantly predicted by the latent variable DoS, while UI (estimate = -.13, $p = .17$) was not significantly predicted by DoS. BYAACQ (estimate = -.66, $p < .01$) and PDCQ (estimate = 1.03, $p < .01$) were significantly predicted by DoS while AUDIT-10 (estimate = -.12, $p = .06$) was not. In addition, the modification indices indicated that errors of HI and UT should be correlated with one another. With this additional information, a second model was constructed.

The second SEM was estimated and was similar to Model 1, but UI was removed from the latent variable. In addition, the measurement errors of HI and UT were correlated with each other (Figure 4). With the exception of Chi-Squared, this produced a good fitting model ($\chi^2 (20) = 35.22, \, p = .019, \, TLI = .90, \, CFI = .96, \, RMSEA = .07$)
which significantly predicted both BYAACQ (-1.42, p = .01), PDCQ (-2.10, p = .04), and AUDIT-10 (1.358, p = .03) scores. This indicates that as the latent variable DoS increases, the participant is less likely to have reported negative and positive consequences associated with alcohol use, as well as lower AUDIT-10 scores.

Hypothesis 4: Discriminant Validity

Discriminant validity was tested though a linear regression with the four subscales of the DSQI predicting scores from the SDS. It was found that there was a nonsignificant relationship between the DSQI subscales and SDS (F(4, 146) = .94, p = .44). This suggests that the DSQI subscales are not related to social desirability.
Chapter 5: Discussion

The discussion section is broken into six portions. The first four sections review and critique the findings from the first four hypotheses. Instrument construction and reliability, convergent validity, predictive validity, and discriminant validity will be discussed. The fifth segment will not only address limitations, but also future plans to eliminate them. The last portion will be dedicated to the conclusion as well as clinical implications of the study.

Hypothesis 1: Instrument Construction and Reliability.

The original instrument contained 32 items that were designed to assess healthy and unhealthy individuality and togetherness. A CFA was conducted and allowed the researcher to identify items that were representative of HI, UI, HT and UT. The implications of the scale’s reliability, item removal, and future directions will be discussed. The original subscales consisted of HI (7 Items), UI (10 Items), HT (7 items) and UT (8 Items). A CFA was conducted using these items and it was found that multiple items did not fit as hypothesized. The final model (Figure 1) was created with the items that had significant factor loadings and squared multiple correlations above .20. The strengths of the instrument will be discussed.
This instrument was designed to provide a deeper understanding of DoS through creating items that reflected unhealthy and healthy individuality and togetherness. The final model (Figure 1) had an acceptable fit (RMSEA = .066) and contained four subscales, each with items that significantly loaded on each of them. The acceptable RMSEA and significant factor loadings suggested that the factors and items supported that a four factor model was created that identified the latent variables of HI, UI, HT and UT. Further support of the four factor model can be obtained through a review of the sub-hypotheses.

Figure 1 shows that HI and HT were significantly and positively correlated, suggesting that healthy individuality and togetherness can exist on separate continuums. If individuality and togetherness were on the same continuum, as other scales have suggested (eg; DSI; Skowron & Friedlander, 1998), then it would be expected that individuality and togetherness would be inversely proportional to one another. However, the model suggests that healthy togetherness and individuality not only operate on separate continuums, but are also significantly and positively related to each other. This could indicate those with high levels of DoS are able to successfully maintain high levels of healthy individuality and togetherness simultaneously, essentially being an individual and connected at the same time.

Alternatively, UI and UT were significantly and negatively related to one another (r = -.42, p < .05), suggesting that unhealthy togetherness and individuality may exist on the same continuum, where a person would be more likely to engage in either unhealthy individuality, or unhealthy togetherness, and not both simultaneously. Conceptually, it
would be difficult for those with low DoS to engage in unhealthy togetherness, and completely submit themselves to someone else while simultaneously attempting to engage in unhealthy individuality and avoid all those around them to maintain their independence (Kerr & Bowen, 1988).

To further the discussion of individuality and togetherness, the remaining correlations are discussed. It would be expected that HT and UT are inversely proportional to one another as well as HI and UI.

The significant and positive relationship between HI and UI (r = .38, p < .05) suggests that separating these two constructs may be difficult and those who identify as having unhealthy individuality may also identify as having healthy individuality. Reviewing the items for the UI and HI subscales, it is clear that those who have high UI may also report high HI. For example, those who do not let the thoughts (UI2) of others impact them may be likely to report that they have a strong sense of who they are (HI2). To support this claim, a bivariate correlation was conducted which found a positive and significant relationship between UI2 and HI2 (r = .206, p < .01). To address this in the future, the items representing HI and UI need to be more distinct from one another, so that those with high UI do not also have high HI. For example, using stronger language such as, “I REFUSE to let the thoughts of important others impact me” may help separate the two constructs and make them more distinct.

The relationship between HT and UT was hypothesized to be negative, but was found to be nonsignificant (r = -.19, p = .053) if alpha was set to .05. However, if alpha was set to .10, the relationship would have been significant. It is possible that with
additional items, as well as participants, it is possible that this relationship could have become significant. However, the direction of the relationship suggests that HT and UT are on the same continuum, where as one reported more healthy togetherness, they were less likely to report unhealthy togetherness.

Lastly, figure 1 shows that there was significant and negative relationship between HI and UT ($r = -.80, p < .05$), and a nonsignificant negative relationship between HT and UI ($r = -.16, p = .06$). Both of these relationships are in the expected direction, suggesting that the continuum is not simply between individuality and togetherness, rather it exists between meeting those life forces in healthy or unhealthy ways. For example, as one reports healthy individuality, they are less likely to report unhealthy togetherness. While the relationship between healthy togetherness and unhealthy individuality may be nonsignificant when alpha is .05, it is in the expected direction, further supporting a continuum between healthy and unhealthy. It is possible that with additional items, as well as participants, that this relationship could have become significant.

According to the above findings, it seems that researchers may have misinterpreted Bowen’s (1966) original concept of DoS. It is not that individuality and togetherness that are on the same continuum, rather, it is unhealthy and healthy that exist on the same continuum. It is possible that the misinterpretation of Bowen’s (1966) original concept of DoS came from a focus on unhealthy togetherness which lead to the creation of measures that ignored healthy togetherness (eg: DSI; Skowron & Friedlander, 1998). To further understand the interplay between healthy and unhealthy individuality
and togetherness, their relationship with emotional reactivity and symptoms (such as alcohol use) will be discussed.

Hypothesis 2: Convergent Validity

The SEM was created to test convergent validity for the DSQI (Figure 2) and produced nonsignificant pathways for HI and HT (Table 5) while there were some significant pathways for UI and UT (Table 5). However, the overall fit of the SEM was poor, suggesting that the results of this particular model should be interpreted with caution. The results of the SEM as well as future recommendations will be discussed.

There were only significant pathways between the unhealthy subscales of the DSQI and some subscales of the BERI (Table 5). While the relationships are all negative, the BERI is scored so that higher scores indicate higher levels of DoS, or more appropriately, lower levels of emotional reactivity. Therefore, if there is a significant and negative relationship between a DSQI subscale and a BERI subscale, it suggests a positive relationship between emotional reactivity and the DSQI subscale. Conversely, if there is a positive relationship, there is a negative relationship between DSQI score and emotional reactivity.

The higher one reported unhealthy individuality, the more likely he/she was to engage in counter attack and lose it with both, their mother and their father. Additionally, the higher level of unhealthy togetherness, the more likely they were to engage in withdraw, counterattack, and lose it with their mother and father. These relationships suggest that unhealthy forms of individuality and togetherness are related to forms of
emotional reactivity, or can be used as indicators of low DoS, suggesting convergent validity.

There were no significant relationships between the healthy togetherness and individuality subscales and any subscales of the BERI. This could indicate that the current BERI is not sensitive to healthy individuality and togetherness. The BERI was an instrument that was constructed to measure emotional reactivity that presented itself as a result of ten different scenarios (Bartle & Sabatelli, 1995). It is possible that the ten scenarios that are present within the BERI may not represent a comprehensive experience of emotional reactivity. It is also possible that a lack of healthy individuality and togetherness does not indicate low DoS, rather, it is the presence of unhealthy individuality and togetherness that suggest low DoS.

Hypothesis 3: Predictive Validity of the DSQI

This section is dedicated to interpreting the results from the analyses associated with the third hypothesis. The third hypothesis was created to determine convergent validity. This included the four subscales of the DSQI being used as predictors of alcohol use, as well as positive and negative consequences associated with alcohol use. Additionally, the presence of an alcoholic parent, anxiety, and gender were used as covariates for the DSQI. Two models were constructed to test this hypothesis, the first model (Figure 3) indicated that UI needed to be dropped from future analyses, and that errors of HI and UT needed to be correlated with one another. A second model was created (Figure 4) which was the final model used to determine convergent validity. The
need for a second model, and the pathways in the second model (Figure 4) will be discussed.

The covariates in the SEM included anxiety, the presence of an alcoholic parent, and gender. Each of these covariates were placed into the SEM because each have been shown to have a significant relationship with DoS. Males are more likely to report lower levels of emotional reactivity than females (Skowron & Friedlander, 1998). Those who reported the presence of an alcoholic parent reported lower DoS (Maynard, 1997). Lastly, anxiety itself was negatively and significantly related to DoS, and alcohol use (Kushner, Abrams, & Borchardt, 2000). The implication of the pathway of each covariate will be discussed.

**Gender**

It was found that gender had a significant and positive impact on DoS, signifying that females had significantly higher levels of DoS as compared to males. Previous findings indicate that women have reported higher levels of emotional reactivity than males, but did not report higher levels of fusion, emotional cut off, or I-position (Skowron & Friedlander, 1998). To further understand this relationship, four independent sample t-tests were conducted with a bonferroni correction, setting the alpha level to .0125. There was a significant difference between males and females for HT \( (t (158) = -4.06, p < .001) \) and UT \( (t (157) = 2.53, p = .013) \). Women’s HT \( (M = 17.41) \) was higher than men’s HT \( (15.89) \). Furthermore, women’s UT \( (M = 6.99) \) was lower than men’s UT \( (8.00) \). The significant difference in both, HT and UT indicate that these subscales could correct for critiques of the DoS construct of valuing stereotypically male characteristics.
over female characteristics (Knudson-Martin, 1994). It is possible stereotypical male characteristics, such as being unemotional, may have contributed to males reporting less emotional reactivity than females. However, the current scale was one of the first that specifically assessed togetherness (a possibly feminine characteristic) in a positive light. The emphasis on the positive aspect of togetherness contributed to women reporting higher levels of DoS than men.

**Alcoholic Parent**

The presence of an alcoholic parent was not significantly related to DoS, which contradicts previous findings (Maynard, 1997). One explanation for this discrepancy is that the sample used in Maynard (1997) consisted of individuals who were currently in community based treatment, such as Al-Anon/Adult Children of Alcoholics meetings. These community based meetings may attract individuals who have been severely affected by an alcoholic parent, and may not be part of the general population. In Maynard’s study, the presence of a lower level of DoS, may have been related to the fact that those in the sample were seeking help in Al-Anon as opposed to the presence of an alcoholic parent. Since the sample was one of convenience, those who reported having an alcoholic parent included those who have and have not been to al-anon meetings, suggesting that the presence of an alcoholic parent itself may not indicate a lower level of DoS.

**Anxiety**

Anxiety was found to be significantly and negatively related to DoS, which supported previous studies (Skowron & Friedlander, 1998). It was expected that anxiety
could have a negative impact on DoS. Kerr & Bowen (1988) reported that DoS and anxiety are often interrelated, in that when anxiety is higher, DoS could be negatively affected. This relationship provides further predictive validity for the subscales HI, HT, and UT.

Symptoms: Alcohol Use and Consequences

Alcohol use, positive and negative consequences associated with alcohol use, and UT were all negatively related to DoS, while HI and HT were positively associated with DoS. This confirms the hypothesis that healthy individuality and healthy togetherness are negatively related to alcohol use, positive consequences and negative consequences of alcohol use, while unhealthy togetherness is positively related to these variables. The removal of UI between models 3 and 4 is discussed in the limitations section.

Reports of high levels of unhealthy togetherness may be indicative of low levels of DoS, and a positive relationship with consequences of alcohol use supports Bowen’s (1974) original hypothesis that DoS is inversely related to alcohol use disorder. Those who report positive consequences of alcohol use, may be using alcohol as a way of mitigating the negative impact of their low DoS. For example, the positive consequences of alcohol use focused on positive social situations, such as having a better time or being more liked. It is possible that those with high levels of unhealthy togetherness are more likely to be anxious in social situations because they are concerned about whether or not the emotions and thoughts of other individuals will match their own. However, alcohol itself could be used as an emotional distant regulator, to help assuage that anxiety.
Alternatively, those who reported high individuality and togetherness may be less likely to drink, and experience those positive consequences.

Hypothesis 4: Discriminant Validity

A nonsignificant relationship between DSQI subscales and SDS suggests that none of the subscales of the DSQI are significantly related to social desirability. This is especially important when attempting to measure constructs such as unhealthy togetherness and individuality, as both those concepts rely heavily on one’s relationship with other people. Those who reported unhealthy individuality are more likely to not care about what others think and may go against what society deems as appropriate to maintain their independence. Furthermore, those who report unhealthy togetherness may be too inclined to follow the expectations of society because they want to have thoughts and emotions similar to those around them. Therefore, the nonsignificant relationship between these constructs and social desirability suggest that the items used reflect one’s unhealthy individuality and togetherness, and not social desirability itself. It would also be expected that healthy forms of individuality and togetherness may be related to social desirability because “everyone” wants these. However, the lack of an association between the healthy subscales of the DSQI and the SDS suggest that scores on these subscales are not being influenced by social desirability. The association between the I-Position subscale of the DSI and the Crown Marlowe Social Desirability Scale was reported to be .60 by Skowron & Friedlander (1998) and considered not high enough for concern. The I-Position subscale contained items similar to that for healthy individuality in the DSQI,
but the items in the DSQI appear to have remedied some of the influence of social desirability on the scores.

Limitations

This section will review several concerns that presented themselves in the study. The sample used, instrument construction, reliability and validation will be critiqued and future directions for each concern are discussed.

Limitations with Sample

As with all samples of convenience, there are limitations that are present while interpreting the data. Specifically, the sample is homogenous, as it includes only participants that are currently enrolled in classes at a university. While this homogenous sample removes possible confounds, it also lowers the variability found within the sample. For example, Kerr and Bowen (1988) wrote about a theoretical class of individuals with very low DoS. These individuals seemed to have an inability to successfully function outside of their FOO. Since the sample was taken from a university, it may lack the people who have very low DoS, and only focuses on those who have moderately low DoS. Without this variability present, it would be more difficult to understand the relationship between variables such as alcohol use and DoS for those who have very low DoS. This can be addressed in future studies by expanding the sample to include a sample of individuals who are currently seeking therapy and are part of the general population. With the inclusion of this subsample, the understanding may be better.
Instrument Construction and Reliability

One concern that presented itself in the scale was the moderate reliability of each subscale. UI (Cronbach’s $\alpha = .79$) and HT (Cronbach’s $\alpha = .70$) had acceptable reliability, but UT (Cronbach’s $\alpha = .68$) and HS (Cronbach’s $\alpha = .63$) had moderate reliability. It is possible that this moderate reliability was due to the limited number of items used, sample size, and participant error. Cronbach alpha is influenced by the number of items present in each subscale. With each subscale having 3 – 4 items, obtaining good to excellent reliability for each subscale would have indicated that there was little error.

While the limited number of items for each subscale was a hindrance to reliability, asking participants to reflect on their relationship with, “important others” could have created an additional confound.

The term, “important other” was defined as, “people that can potentially play an influential role in your life, such as your parents, family, significant others, as well as friends.” This was meant to provide a holistic view of one’s needs for togetherness and individuality. This assumption was based on Ker & Bowen’s (1988) suggestion that DoS is a fairly stable trait throughout multiple relationships. However, there are different ways, “important others” could have been interpreted. For example, one participant may have assumed that it was an average of all of the important others. Another participant could have assumed that there was only one important other to focus on, such as their parent. Since there were multiple ways that the term, “important other” could have been
interpreted, it is possible that this influenced reliability and the need to correlate measurement error.

To create an instrument with less measurement error, it may be important to replace important others with specific people and obtain a multifaceted approach. This approach was used in the creation of the DIFS (Anderson & Sabatelli, 1992), where each item was asked about multiple relationships, such as mother, father, and sibling. To remedy this, each subscale can be asked about the mother as well as father, and will provide a clearer question with potentially less measurement error.

Thoughts and emotions were combined with individuality and togetherness, respectively to provide a comprehensive understanding of DoS, one which includes both intra and interpersonal DoS. Additionally, it seemed appropriate to pair emotions with togetherness because they are both viewed negatively in DoS while individuality and thoughts both have positive connotations. Additionally, Kerr & Bowen (1988) would have argued that those with low DoS would be more likely to focus on the togetherness life force as well as emotions. While these two constructs may be related to one another, they are not necessarily the same concept, and could have influenced the results of the CFA. For example, “I separate my emotions from my thoughts” and “I am able to communicate my thoughts” both reflect not only intrapersonal DoS, but also how in tuned one is with their emotions and/or thoughts. This may not reflect togetherness or individuality, but intrapersonal DoS. If one of these subscales reflected intrapersonal DoS and not togetherness or individuality, it is possible that it is a part of a different construct, and would not be expected to load onto the same latent variable. For example, UI did not
significantly load onto the latent variable DoS when HI, HT, and UT did. The inability to load may support the assumption that these items should not have been combined onto the same subscale.

Convergent Validity

The SEM that was created had an overall poor fit, with a high RMSEA (.278) and a significant chi-squared ($\chi^2 (24) = 321.425$). While chi-squared is influenced by sample size, RMSEA is not, introducing additional participants would not have created a better fit. This indicated that the model’s observed variance-covariance matrix is significantly different than the predicted variance-covariance matrix, suggesting that the conclusions made from this model should be interpreted with caution. The fit could have been poor for a few reasons.

To address the concerns with fit in the future, there are a few steps that can be taken in future analyses. The moderate reliability of the DSQI contributed to the poor fit of the model. As previously mentioned, the instrument has moderate to adequate reliability, and only contains three to four items for each subscale. It is possible that the steps previously mentioned to increase reliability would decrease error and potentially create a better fitting model, this includes a larger, more diverse sample, and additional items for each subscale.

Predictive Validity

There were three main limitations of the model used to determine predictive validity. First, the removal of UI from the model indicated that perhaps UI may have contained too much error in the subscale, and could have benefitted from additional
items, and the removal of the term, “important others” (discussed previously in
Instrument Creation and Reliability). A second limitation was the necessity to correlate
measurement error between UT and HI. This may have also been necessitated by the
limited amount of items as well as use of the term, “important others”. Consequently,
additional items should be used in the future that not only distinguish healthy from
unhealthy individuality, but also specifies a particular parent as opposed to a general
group of people. Lastly, the significant chi-squared statistic suggests that the model fit is
poor. However, chi-squared is influenced by sample size, and an increase in sample size
may help this statistic become nonsignificant, suggesting good fit.

**Discriminant Validity**

The measure of social desirability is one that is elusive and debated (Beretvas,
Meyers, & Leite, 2002). This particular instrument presented the participants with
multiple statements and whether those particular statements apply to them. If we accept
that the SDS is a valid measure of social desirability, than the DSQI does not appear to be
influenced by social desirability in this sample.

**Conclusion & Therapeutic Implications**

The results of this study found support for the three hypotheses. An instrument
was created to measure HI, UI, HT, and UT. These measures were significantly
correlated with emotional reactivity. Lastly, subscales of the instrument were used to
predict alcohol use, as well as positive and negative consequences of alcohol use.
Significant negative relationships were found between the DSQI as a latent variable
without UI, and alcohol use, along with positive and negative consequences of alcohol
use and a positive relationship was found between UI and the alcohol use variables. This is evidence for the construct validity of this newly designed instrument and that DoS is related to problems with alcohol use.

Unfortunately, there were some limitations in instrument construction, such as low reliability which could have contributed to ill-fitting models, which impacted hypotheses three and four. However, the models did show some support that the subscales of the DSQI were associated with emotional reactivity, and were related to alcohol use, and consequences associated with alcohol use. The clinical implications of these results will be discussed.

With DoS being used commonly in couple and family therapy (Nichols & Schwartz, 1998), is would be crucial to have developed tools to measure DoS to ascertain the effectiveness of therapy. Kerr and Bowen (1998) reported that therapy should be an experience that increases one’s level of DoS. However, accurately measuring DoS as it changes in therapy is quite difficult. With additional instrument development, the DSQI could be used as a tool to help identify the different parts of DoS that could be a focus of therapy. For example, clients who enter into therapy with a great deal of unhealthy individuality, may prompt the clinician to focus on ways to promote healthy individuality and identify moments of unhealthy individuality. Additionally, since healthy individuality and togetherness are positively and significantly related, it is possible that an increase in the other.

While the subscales that were created had moderate reliability because there were so few items, they helped further the understanding of DoS by illustrating that different
components of DoS may not be combined into different subscales. For example, items that reflected one’s views of emotions or emotional reactivity do not provide information on the construct of togetherness. Therefore, when thinking about a client’s togetherness and individuality life force, it is important to focus on those constructs to help create and monitor change.

Lastly, the significant relationship between DoS and indicators of alcohol use illustrate the importance of viewing alcohol use within a familial context. The negative relationship between alcohol use, as well as negative and positive consequences of alcohol use with DoS indicates that DoS could be included in sessions with clients who reported concerns with their alcohol use. Furthermore, interventions that focus on increasing healthy individuality and togetherness while decreasing unhealthy togetherness may help decrease one’s reliance on alcohol as a necessary symptom within their FOO (Kerr & Bowen, 1998).
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Arbuckle, J. L. (2014). Amos (Version 23.0) [Computer program]. Chicago, IL: SPSS.


IBM Corp. (2013). SPSS (Version 22.0) [Computer program]. Chicago, IL: SPSS.


Appendix A: Tables
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<td>10.6%</td>
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<td>1.1%</td>
<td>2</td>
<td>1.2%</td>
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<td>10</td>
<td>6.2%</td>
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<td>3</td>
<td>1.9%</td>
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</table>
Table 2. Descriptives for all items used in the original DSQI.

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<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
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<td><strong>HI1:</strong> I am an independent person.</td>
<td>4.09</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>HI2:</strong> I appreciate opinions different than my own.</td>
<td>4.04</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>HI3</strong> I am able to separate thoughts from emotions</td>
<td>3.47</td>
<td>0.91</td>
</tr>
<tr>
<td>* <strong>HI4</strong> I am able to communicate my thoughts,</td>
<td>3.94</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>HI5:</strong> I am able to disagree with others.</td>
<td>4.16</td>
<td>0.75</td>
</tr>
<tr>
<td>* <strong>HI6:</strong> I have a strong sense of who I am.</td>
<td>3.99</td>
<td>0.90</td>
</tr>
<tr>
<td>* <strong>HI7:</strong> I do not change myself for the benefit of important others.</td>
<td>3.43</td>
<td>1.07</td>
</tr>
<tr>
<td>* <strong>UI1:</strong> I do not let the thoughts of important others impact me.</td>
<td>2.34</td>
<td>0.89</td>
</tr>
<tr>
<td>* <strong>UI2:</strong> I do not let the emotions of important others impact me</td>
<td>2.63</td>
<td>0.96</td>
</tr>
<tr>
<td><strong>UI3:</strong> During arguments, I often leave the room.</td>
<td>2.87</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>UI4:</strong> During arguments, I detach myself from my emotions.</td>
<td>2.50</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>UI5:</strong> My thoughts and emotions have no influence on one another.</td>
<td>2.47</td>
<td>0.93</td>
</tr>
<tr>
<td>* <strong>UI6:</strong> Important others’ opinions do not impact me.</td>
<td>2.34</td>
<td>1.05</td>
</tr>
<tr>
<td><strong>UI7:</strong> My thoughts control my emotions.</td>
<td>3.37</td>
<td>0.91</td>
</tr>
<tr>
<td><strong>UI8:</strong> I separate my emotions from my thoughts.</td>
<td>2.99</td>
<td>1.17</td>
</tr>
<tr>
<td><strong>UI9:</strong> I cannot rely on important others for help.</td>
<td>2.39</td>
<td>1.16</td>
</tr>
<tr>
<td><strong>UI10:</strong> I can control my emotions.</td>
<td>3.77</td>
<td>0.91</td>
</tr>
</tbody>
</table>

*Note.* * indicates item is included in final instrument.

Table 2 Continued on next page
Table 2 Cont’d

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<th>Item</th>
<th>Description</th>
<th>Mean</th>
<th>Standard Deviation</th>
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<td>I understand the emotions of others.</td>
<td>4.34</td>
<td>0.71</td>
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<tr>
<td>HT2</td>
<td>It is often easy for me to know how others feel.</td>
<td>4.17</td>
<td>0.87</td>
</tr>
<tr>
<td>HT3</td>
<td>I am able to understand the perspective of others.</td>
<td>4.22</td>
<td>0.75</td>
</tr>
<tr>
<td>HT4</td>
<td>My thoughts and emotions influence each other.</td>
<td>3.71</td>
<td>0.87</td>
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<tr>
<td>HT5</td>
<td>I appreciate the similarities between people.</td>
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<td>0.83</td>
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<tr>
<td>HT6</td>
<td>I enjoy being emotionally close to others.</td>
<td>4.09</td>
<td>1.07</td>
</tr>
<tr>
<td>HT7</td>
<td>I am able to communicate my emotions.</td>
<td>3.43</td>
<td>1.13</td>
</tr>
<tr>
<td>UT1</td>
<td>I am willing to change my opinions to suit others.</td>
<td>2.44</td>
<td>1.04</td>
</tr>
<tr>
<td>UT2</td>
<td>I only understand myself through the opinions of important others.</td>
<td>2.33</td>
<td>1.04</td>
</tr>
<tr>
<td>UT3</td>
<td>I feel good about myself only if important others like me.</td>
<td>2.63</td>
<td>1.12</td>
</tr>
<tr>
<td>UT4</td>
<td>I place the needs of important others before my own.</td>
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<td>0.95</td>
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<tr>
<td>UT5</td>
<td>During arguments with important others, I become overwhelmed by my emotions.</td>
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</tr>
<tr>
<td>UT6</td>
<td>During arguments with important others, I focus on how to defend my actions.</td>
<td>3.45</td>
<td>0.90</td>
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<tr>
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<td>UT8</td>
<td>My thoughts and emotions are one and the same.</td>
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Note. * indicates item is included in final instrument.
Table 3. CFA fit indices for DSQI Models 1 - 3

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*p < .05
Table 4. Estimates and Squared Multiple Correlations for DSQI Models 1 – 3.

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Note. *p<.05, - indicates item was removed. Table 4 continued on next page
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<td>0.63</td>
<td>0.70*</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>HI7</td>
<td>0.49*</td>
<td>0.21</td>
<td>0.08*</td>
<td>0.20</td>
<td>0.48*</td>
<td>0.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Note.* *p < .05,* - indicates item was removed
<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th></th>
<th></th>
<th></th>
<th>Mother</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Withdraw</td>
<td>Counterattack</td>
<td>Shut out</td>
<td>Lose It</td>
<td>Withdraw</td>
<td>Counterattack</td>
<td>Shut out</td>
</tr>
<tr>
<td>HI</td>
<td>.73 (.05)</td>
<td>-.07 (.86)</td>
<td>-.01 (.98)</td>
<td>.19 (.58)</td>
<td>.44 (.23)</td>
<td>-.07 (.96)</td>
<td>-.02 (.38)</td>
<td>.28 (.38)</td>
</tr>
<tr>
<td>UI</td>
<td>-.19 (.55)</td>
<td>-.87 (.01)</td>
<td>.18 (55)</td>
<td>-.71 (.01)</td>
<td>-.11 (.76)</td>
<td>-.89 (&lt; .01)</td>
<td>.03 (.91)</td>
<td>-.56 (.02)</td>
</tr>
<tr>
<td>HT</td>
<td>-.09 (.78)</td>
<td>-.15 (.61)</td>
<td>.27 (.38)</td>
<td>.043 (.88)</td>
<td>.07 (.82)</td>
<td>.15 (.58)</td>
<td>.39 (.19)</td>
<td>.06 (.83)</td>
</tr>
<tr>
<td>UT</td>
<td>-.86 (.01)</td>
<td>-.77 (.02)</td>
<td>.46 (.15)</td>
<td>-.69 (&lt; .01)</td>
<td>-.98 (&lt;.01)</td>
<td>-.88 (.02)</td>
<td>-.49 (.12)</td>
<td>-.67 (.02)</td>
</tr>
</tbody>
</table>

Table 5. Estimates for Convergent Validity
Table 6. Covariances for convergent validity.

<table>
<thead>
<tr>
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<th>Estimate</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT</td>
<td>UI</td>
<td>-2.12</td>
</tr>
<tr>
<td>UI</td>
<td>HI</td>
<td>1.46</td>
</tr>
<tr>
<td>HI</td>
<td>HT</td>
<td>1.91</td>
</tr>
<tr>
<td>UT</td>
<td>HI</td>
<td>-2.88</td>
</tr>
<tr>
<td>UI</td>
<td>HT</td>
<td>-1.05</td>
</tr>
<tr>
<td>UT</td>
<td>HT</td>
<td>-.94</td>
</tr>
<tr>
<td>dFW</td>
<td>dMW</td>
<td>52.52</td>
</tr>
<tr>
<td>dFC</td>
<td>dMC</td>
<td>44.01</td>
</tr>
<tr>
<td>dFS</td>
<td>dMS</td>
<td>49.80</td>
</tr>
<tr>
<td>dFL</td>
<td>dML</td>
<td>41.16</td>
</tr>
</tbody>
</table>

Note. dFW/dMW = Disturbance Father Withdrawal/Disturbance Mother Withdrawal
dFC/dMC = Disturbance Father Cutoff/Disturbance Mother Cutoff
dFS/dMS = Disturbance Father Shutout/Disturbance Mother shutout
dFL/dML = Disturbance Father Lose it/Disturbance Mother Lose it.
Table 7. Statistics for BERI

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th></th>
<th></th>
<th>Mother</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>α</td>
<td>M</td>
<td>SD</td>
<td>α</td>
</tr>
<tr>
<td>Withdraw</td>
<td>27.39</td>
<td>8.54</td>
<td>.90</td>
<td>27.89</td>
<td>8.23</td>
<td>.88</td>
</tr>
<tr>
<td>Counterattack</td>
<td>29.65</td>
<td>8.21</td>
<td>.91</td>
<td>30.72</td>
<td>7.45</td>
<td>.88</td>
</tr>
<tr>
<td>Lose it</td>
<td>34.09</td>
<td>7.36</td>
<td>.91</td>
<td>34.45</td>
<td>7.07</td>
<td>.91</td>
</tr>
<tr>
<td>Shut out</td>
<td>25.70</td>
<td>8.00</td>
<td>.81</td>
<td>26.50</td>
<td>7.88</td>
<td>.87</td>
</tr>
</tbody>
</table>
Appendix B: Figures
Figure 1. Final CFA for DSQI

*p < .05, **p < .001
Figure 2. Test for DSQI Convergent Validity
Figure 3. Model 1 of Hypothesis 2: DSQI predicting alcohol use and consequences

*p < .05
Figure 4. Final Model of Hypothesis 2: DSQI predicting alcohol use and consequences

Note. *p < .05
Appendix C: Measures
Differentiation of Self Quadrant Inventory

The following are statements regarding to your relationships with important others.

In this survey, important others refers to people that can potentially play an influential role in your life, such as your parents, family, significant others, as well as friends. Using the scale below, please indicate how much you agree with each statement. Keep in mind, there are no “right” answers.

<table>
<thead>
<tr>
<th>Not at All Like Me</th>
<th>Not Much Like Me</th>
<th>Neutral</th>
<th>Somewhat Like Me</th>
<th>Very Much Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Healthy Individuality

1) I am an independent person.

1) I appreciate opinions different than my own.

2) I am able to separate thoughts from emotions.

3) I am able to communicate my thoughts

4) I am able to disagree with others.

5) I have a strong sense of who I am.

6) I do not change myself for the benefit of important others.

Unhealthy Individuality

1) I do not let the thoughts of important others impact me.

2) I do not let the emotions of important others impact me.

3) During arguments, I often leave the room.
4) During arguments, I detach myself from my emotions.

5) My thoughts and emotions have no influence on one another.

6) Important others’ opinions do not impact me.

7) My thoughts control my emotions.

8) I separate my emotions from my thoughts.

9) I cannot rely on important others for help.

10) I can control my emotions.

Healthy Togetherness

1) I understand the emotions of others.

2) It is often easy for me to know how others feel.

3) I am able to understand the perspective of others.

4) My thoughts and emotions influence each other.

5) I appreciate the similarities between people.

6) I enjoy being emotionally close to others.

7) I am able to communicate my emotions.
Unhealthy Togetherness

1) I am willing to change my opinions to suit others.

2) I only understand myself through the opinions of important others.

3) I feel good about myself only if important others like me.

4) I place the needs of important others before my own.

5) During arguments with important others, I become overwhelmed by my emotions.

6) During arguments with important others, I focus on how to defend my actions.

7) During arguments with important others, I focus on placing the blame on them.

8) My thoughts and emotions are one and the same.
INSTRUCTIONS: Sometimes when we interact with our caregivers, we experience emotions because of things they may say or do. We may become upset, uncomfortable, tense, angry, embarrassed, or ashamed. Depending on how we feel at the time, we do different things in response to these feelings. We may want to argue with them or we may want to avoid the conflict. We have divided these responses into four categories:

WITHDRAW: You physically leave the room or house. Even though you are upset, you try to avoid dealing with your caregivers.

COUNTERATTACK: You fight back or try to get back at your parent somehow, by insulting them or retaliating in some other way (e.g., bringing up past mistakes or faults your parent may have). You may try to make it clear that they are wrong and you are right.

SHUT OUT: You may become upset, but you don't show it; you may pretend you're not listening, or in some other way shut out your parent.

LOSE IT: You may become so upset that you begin to cry. You are so frustrated that you lose control (e.g., slamming or throwing things, slamming doors). Your response is extreme, you feel you can't control yourself, you may feel irrational.
Following are a set of scenarios that may or may not cause you to respond in these ways. Please circle the number that corresponds to how like you each of the response categories is, for each scenario. It is possible that more than one category is like you. You should circle a number for all four categories of responses after each question. The questions are asked separately for your mother and your father. You also have the opportunity to say how frequently or infrequently the kinds of things mentioned in the scenario happen between you and your caregivers. Even if these things rarely happen, if at all, please answer the question in terms of how like you these responses might be.
1. Sometimes Caregivers can make us feel upset or uncomfortable (e.g., angry, embarrassed, ashamed, etc.) by intruding in our personal affairs, like asking personal questions about the people we are dating and/or giving us suggestions about what friends we should or should not have. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. Sometimes caregivers can make us feel angry or annoyed by trying to make decisions for us or by questioning the decisions we've made, like career choice, or choice of a college major, or deciding to get more education, or deciding where we should live, etc. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
3. Sometimes caregivers can make us feel annoyed or upset by treating us like a child in front of others, telling others things we'd hoped they would keep to themselves, telling others things about us that are none of these people's business, etc. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Withdraw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countertack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lose it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Sometimes caregivers can make us feel embarrassed or upset by trying to act younger then they are, joining in with our friends, or by doing foolish things like drinking too much, talking too loud, or saying stupid things. When or if your PARENT does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Withdraw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countertack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shut out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lose it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Sometimes caregivers can make us feel upset, guilty, or ashamed because we haven't done something that they expected us to do, like go to a family dinner, or reunion, or some other family event, or because we haven't spent enough time with them. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Withdraw</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Countertack</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Shut out</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Lose it</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. Sometimes caregivers can make us feel guilty or upset or ashamed because we don't appreciate what they've done for us. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Withdraw</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Countertack</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Shut out</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Lose it</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
7. Sometimes caregivers can make us feel guilty or ashamed or upset because we don't accept their views on things like religion, relationships, career choices, etc. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. Sometimes caregivers can make us feel upset, annoyed, or irritated by giving us advice we didn't ask for, by stating their opinions as facts, or by disagreeing with us based on their limited view, or just by thinking they are always right. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

87
9. Sometimes caregivers can make us feel upset or angry by asking us to choose sides in their arguments with other family members. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td></td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

10. Sometimes caregivers can make us feel angry or upset by asking our opinions on things and then telling us we're wrong somehow, or by asking us what we think when what they really want is for us to agree with them. When or if your caregiver does these sorts of things, how like you would the following responses be:

<table>
<thead>
<tr>
<th></th>
<th>Very Much Like</th>
<th>Like Me</th>
<th>Somewhat Like</th>
<th>Not at all Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Me</td>
<td>Me</td>
<td>Me</td>
<td></td>
</tr>
<tr>
<td>Withdraw</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Countertack</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shut out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lose it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Children of Alcoholics Screening Test - 6

Please answer the following with a yes or a no.

1. Have you ever thought that one of your parents had a drinking problem?
2. Did you ever encourage one of your parents to quit drinking?
3. Did you ever argue or fight with a parent when he or she was drinking?
4. Have you ever heard your parents fight when one of them was drunk?
5. Did you ever feel like hiding or emptying a parent's bottle of liquor?
6. Did you ever wish that a parent would stop drinking?
The Alcohol Use Disorders Identification Test: Self-Report Version

For questions 1 – 8, please select the most accurate answer.

<table>
<thead>
<tr>
<th>Never</th>
<th>Monthly</th>
<th>2 – 4</th>
<th>2 – 3</th>
<th>4 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>or less</td>
<td>a month</td>
<td>times a week</td>
<td>times a week</td>
<td></td>
</tr>
</tbody>
</table>

1. How often do you have a drink containing alcohol?

2. How many standard drinks do you have on a typical day when you are drinking?

3. How often do you have six or more standard drinks on one occasion?

4. How often during the last year have you found that you were not able to stop drinking once you had started?

5. How often during the last year have you failed to do what was normally expected of you because of drinking?

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
For questions 9 and 10 please select the most accurate answer.

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes, but not in a year</th>
<th>Yes, during the last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
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</tbody>
</table>

9. Have you or someone else been injured because of your drinking?

10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?
Generalized Anxiety Disorder 7-item Scale

Over the last 2 weeks, how often have you been bothered by the following problems?

(0) Not at all sure
(1) Several days
(2) Over half the days
(3) Nearly every day

1. Feeling nervous, anxious, or on edge 0 1 2 3
2. Not being able to stop or control worrying 0 1 2 3
3. Worrying too much about different things 0 1 2 3
4. Trouble relaxing 0 1 2 3
5. Being so restless that it's hard to sit still 0 1 2 3
6. Becoming easily annoyed or irritable 0 1 2 3
7. Feeling afraid as if something awful might happen 0 1 2 3

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all __________
Somewhat difficult _________
Very difficult _____________
Extremely difficult _________
Brief Young Adult Alcohol Consequences Questionnaire

In the past year I have, (select yes or no)

1. While drinking, I have said or done embarrassing things.

2. I have had a hangover (headache, sick stomach) the morning after I had been drinking.

3. I have felt very sick to my stomach or thrown up after drinking.

4. I often have ended up drinking on nights when I had planned not to drink.

5. I have taken foolish risks when I have been drinking.

6. I have passed out from drinking.

7. I have found that I needed larger amounts of alcohol to feel any effect, or that I could no longer get high or drunk on the amount that used to get me high or drunk.

8. When drinking, I have done impulsive things I regretted later.

9. I’ve not been able to remember large stretches of time while drinking heavily.

10. I have driven a car when I knew I had too much to drink to drive safely.

11. I have not gone to work or missed classes at school because of drinking, a hangover, or illness caused by drinking.

12. My drinking has gotten me into sexual situations I later regretted.

13. I have often found it difficult to limit how much I drink.

14. I have become very rude, obnoxious, or insulting after drinking.

15. I have woken up in an unexpected place after heavy drinking.

16. I have felt badly about myself because of my drinking.

17. I have had less energy or felt tired because of my drinking.
18. The quality of my work or school work has suffered because of my drinking.

19. I have spent too much time drinking.

20. I have neglected my obligations to family, work, or school because of drinking.

21. My drinking has created problems between myself and my boyfriend/girlfriend/spouse, parents, or other near relatives.

22. I have been overweight because of drinking.

23. My physical appearance has been harmed by my drinking.

24. I have felt like I needed a drink after I’d gotten up (that is, before breakfast)
Positive Drinking Consequences Questionnaire

Please indicate the number of times you have experienced each of the following consequences of drinking in the past 3 months. Please do not report experiencing consequences simply because you believe that they ordinarily occur when you drink. Think about actual drinking occasions and report the consequences experienced on these occasions.

<table>
<thead>
<tr>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-10</th>
<th>&gt;10</th>
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</thead>
</table>

1. I approached a person that I probably wouldn’t have spoken to otherwise.
2. I told a funny story or joke and made others laugh.
3. I revealed a personal feeling or emotion that I had previously kept secret.
4. I felt like I had enough energy to stay out all night partying or dancing.
5. In a situation in which I would usually have stayed quiet, I found it easy to make conversation.
6. I stood up for a friend or confronted someone who was in the wrong.
7. I found myself in a frightening situation and I felt surprisingly fearless.
8. I found a creative solution to a problem I might otherwise have had difficulty solving.
9. I felt especially confident that other people found me attractive.
10. The intensity of a sexual experience was enhanced.
11. I acted out a sexual fantasy that I might ordinarily be embarrassed to reveal or attempt.
12. On a particularly stressful day, I noticed a release of tension from my muscles/nerves.
13. Something that would have ordinarily made me upset/emotional didn’t really get me down.
14. Things that I had been worrying about all day no longer seemed important.
Marlowe-Crowne Social Desirability Scale Form X1

For the following items, please answer yes or no.

2. I like to gossip at times

3. There have been occasions when I took advantage of someone.

4. I’m always willing to admit it when I make a mistake.

5. I always try to practice what I preach

6. I sometimes try to get even rather than forgive and forg

7. At times I have really insisted on having things on my own way.

8. There have been occasions when I felt like smashing things.

9. I never resent being asked to return a favor.

10. I have never been irked when people express ideas very different from my own.

11. I have never deliberately said something that hurt someone’s feelings.