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Assessing differentiation of self in multiple cultural contexts: Initial validation of the Multicultural Differentiation of Self Inventory (MDSI)

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Assessing differentiation of self in multiple cultural contexts: Initial validation of the
Multicultural Differentiation of Self Inventory (MDSI)

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Counselor Education

by

Nasima Rahman Khan

B.A. SOAS University of London, 2010
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December, 2020

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Dedication

I dedicate my dissertation to my parents, Hajji Mohammed Harun Miah (Abdur Rahman) and Rabia Khatun Rahman, whose unwavering support through my doctoral journey and whose lived experiences and lessons in our multicultural multigenerational emotional process has given me a wealth of insight into who I choose to be today. I am proud to be your daughter.

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I would like to thank the experts in family systems theory, culture, and/or instrument development who shared valuable feedback on the MDSI item development process. I would also like to thank the graduate student participants and their professors for the opportunity to conduct my research. Many thanks also to my clients who continue to help inform my work as a counselor, educator, and researcher.

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Abstract

Researchers have shown that current instruments used to assess an individual's level of differentiation of self or differentiation are biased towards an individualistic cultural context, therefore current instruments lack cultural validity (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O'Hara & Meteyard, 2011). When counseling from Bowen's family systems theoretical perspective, accurate assessment of an individual's differentiation is integral for treatment planning and intervention (Bowen & Kerr, 1988). To address the existing gap in assessment of differentiation within multiple cultural contexts (i.e., individualistic, collectivistic, transcultural), the purpose of the present research was to develop the Multicultural Differentiation of Self Inventory (MDSI) and conduct initial validation. Graduate students, 22 years and older from 33 universities in southeast United States (U.S.), completed a Demographic Questionnaire (i.e., university, age, gender, socio-economic status, relationship status, race, ethnicity, country of birth, residence state in U.S., residence country/countries, current geographic location due to Covid-19 pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting), the 36-item Multicultural Differentiation of Self Inventory (MDSI), and the 16-item Individualism-Collectivism Revised Scale (INDCOL-R; Triandis & Gelfand, 1998). Results of an exploratory factor analysis using a principle components analysis indicated that the MDSI was not a valid instrument to assess differentiation of self in the individualistic, collectivistic, and transcultural contexts. Further, validity and reliability of the INDCOL-R Scale was established. Cronbach's alpha indicated good reliability (i.e., .70 or higher) for all four dimensions, including horizontal individualism ($M = 26.78$, $SD = 5.92$), horizontal collectivism ($M = 28.21$, $SD = 5.09$), vertical individualism ($M = 17.97$, $SD = 6.65$),

and vertical collectivism ($M = 23.69$, $SD = 6.65$), as well as individualism ($M = 44.75$, $SD = 9.85$) and collectivism ($M = 51.88$, $SD = 9.31$). Using Pearson's r and the probability cutoff value of .01 and .001, INDCOL-R Scale and dimension correlations ranged from very weak (.12, $p = .01$; vertical individualism and vertical collectivism) to very strong (.85, $p = .001$; collectivism and vertical collectivism). Also using Pearson's r , INDCOL-R Scale and demographics correlations ranged from very weak (.12, $p = .01$; vertical collectivism and socioeconomic status; INDCOL-R Scale and current majority community cultural setting; respectively) to weak (.21, $p = .001$; vertical collectivism and relationship status). Future research is needed to develop a culturally valid differentiation of self instrument.

Keywords: Multicultural Differentiation of Self Inventory, MDSI, instrument development, multicultural assessment, differentiation of self, Bowen's family systems theory

Chapter I

Introduction

In this chapter, an introduction to the current research is presented regarding the following: (a) background, (b) purpose of the study, (c) significance of the study, (d) conceptual framework, (e) problem statement, (f) overview of methods, (g) research questions, (h) limitations, (i) delimitations, (j) assumptions of the study, and (k) definition of terms.

Background

Assessment and intervention are essential when providing accurate and ethical counseling services to individuals and families (American Counseling Association [ACA], 2014; American Psychological Association [APA], 2017). Counseling used by counselors with individuals, couples, and families often involve assessment tools that establish a baseline of symptoms and experiences in order to track improvement or decline in mental health symptomology (Bitter, 2014; Capuzzi & Gross, 2016; Gladding, 2018; Taibbi, 2017). With Bowen's family systems theory or Bowen's theory, an important part of clinical assessment and treatment plan is determining a client's level of differentiation of self (Bowen, 1978; Bowen & Kerr, 1988). Bowen and Kerr (1988) described differentiation of self or differentiation as "the ability to think and reflect, to not automatically respond to internal and external emotional stimuli, gives man the ability to restrain selfish and spiteful urges, even during periods of high anxiety" (p. 94). An individual "with the ability and motivation can, through a gradual process of learning that is converted into action, become more of a self in his family and other relationship systems" (p. 107). Bowen (1978) and Bowen and Kerr (1988) further postulated that an individual's level of differentiation of self, while largely inherited from one's family of origin, can be changed and managed with therapy to reduce mental health symptomology, such as chronic anxiety.

Therefore, assessing an individual's level of differentiation of self can assist in determining and implementing counseling interventions for a client's presenting issues that are related to chronic anxiety (Skowron & Friedlander, 1998).

Various instruments used in clinical practice that assess differentiation of self include the Differentiation of Self Scale (DSS, Kear, 1978), Emotional Cutoff Scale (ECS, McCollum, 1991), Level of Differentiation of Self Scale (LDSS, Haber, 1993), Differentiation of Self Inventory (DSI, Skowron & Friedlander, 1998), the revised version of the DSI called the Differentiation of Self Inventory-Revised (DSI-R, Skowron & Schmitt, 2003), and Differentiation of Self Inventory-Short Form (DSI-SF, Drake, 2011). However, culturally informed practice is an important part of assessment and treatment of clients. Awareness of cultural factors are not only important in all aspects of counseling (Sue & Sue, 2013), but as stated in ACA's (2014) and APA's (2017) code of ethics, cultural competence is a mandate for mental health clinicians. Cultural competency requires clinicians' awareness of similar or different cultural values and experiences belonging to clinicians and their clients, and an analysis of how these values and experiences affect their clients as well as the counseling relationship.

Additionally, professional assessment standards from a multicultural perspective are required of counselors (Cofresi & Gorman, 2004). Multicultural and social justice-oriented standards are important guidelines for conducting a multicultural assessment to ensure that valid, reliable, fair, and equitable practice is represented for varying cultural and minority populations (Association for Assessment and Research in Counseling [AARC], 2003, 2012; Tran et al., 2017). When utilizing a family systems theory, existing challenges remain both in the theoretical conceptualization of clients in clinical practice and assessment of clients. Multiple researchers have illustrated that these challenges include an individualistic cultural bias present in Bowen's

family systems theory and the construct of differentiation of self, as well as cultural validity issues in current instruments used to assess differentiation of self in individuals from multiple cultural contexts (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O'Hara & Meteyard, 2011).

Purpose of the Study

Researchers have shown that current instruments used to assess an individual's differentiation of self are biased towards an individualistic cultural context, therefore current instruments lack cultural validity (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O'Hara & Meteyard, 2011). The purpose of the present research is to address the existing gap in assessment of differentiation of self by developing and testing the validity and reliability of the Multicultural Differentiation of Self Inventory (MDSI) to accurately assesses individuals' level of differentiation of self in multiple cultural contexts.

Significance of the Study

When practicing from a family systems approach, counselors should understand clients' level of differentiation of self in order to help clients navigate their relationships and live healthy lives (Bowen, 1978). Therefore, assessment of differentiation of self is generally important for treatment planning and working with clients. Various instruments have been used to assess clients' differentiation of self in treatment settings. However, a culturally valid instrument that assesses differentiation of self in multiple cultural contexts is not available (O'Hara & Meteyard, 2011).

The lack of a culturally valid instrument that assesses differentiation of self causes concern for delivering accurate and ethical therapeutic assessment in counseling. A culturally valid instrument that assesses differentiation of self could fulfill the ethical mandate of cultural

competency in the counseling field by enhancing culturally valid assessment and intervention methods (ACA, 2014; APA, 2017). Developing a culturally valid instrument could reduce the risk of inaccurate assessment of clients through the reduction of cultural validity problems, as evident in current instruments used to assess differentiation of self (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015). Additionally, item bias toward an individualistic cultural perspective such as in the DSI-R could be reduced with the development of items that would represent differentiation of self in multiple cultural contexts (O'Hara & Meteyard, 2011). Thus, the development of an instrument based on multiple cultural contexts would be a significant contribution to the field of mental health counseling.

Conceptual Framework

The conceptual framework utilized in the present research involves the well-established and seminal family systems theory developed by Murray Bowen (1978). Among the development of other family theories, such as Haley's strategic family therapy and Minuchin's structural family therapy; Bowen (1978) developed a family systems theory during the 1960's in the United States (U.S.). Kerr (2019) expounded on Bowen's theory by including updated medical literature to further elaborate on the link between chronic anxiety and inflammation that supported a unidisease concept. He also used current socio-political examples to explain the multigenerational impact of school shootings.

Bowen continued to develop his family systems theory to include eight interlocking concepts, one of which is the concept of differentiation of self. Bowen and Kerr (1988) described differentiation of self as "the ability to think and reflect, to not automatically respond to internal and external emotional stimuli, gives man the ability to restrain selfish and spiteful urges, even during periods of high anxiety" (p. 94). An individual "with the ability and motivation can,

through a gradual process of learning that is converted into action, become more of a self in his family and other relationship systems” (p. 107). An integrative nature exists between differentiation of self and the eight interlocking concepts of Bowen’s family systems theory, (Bitter, 2014; Bowen & Kerr, 1988; Crossno, 2011; Frost, 2014; Kerr, 2019; Papero, 2014; Popovic, 2019; Titelman, 2014).

Bowen grounded his theory in natural systems where unconscious forces play a role in automatic and survival-oriented human behavior patterns stemming from the limbic system, as seen in animal behavior such as flight, fight, or freeze. However, the development of the prefrontal cortex in the human brain allows for the ability of humans to take differentiated thoughtful actions by using intellect over automatic emotional limbic reaction (Bowen & Kerr, 1988). Bowen (1988) described the human brain as including the prefrontal cortex that “developed from a low brow to a high brow” and that “the neocortex plays little if any role in intelligence, it is the only neocortex that looks inward to the inside world. The prefrontal cortex plays an important role in providing foresight in planning for ourselves and others” (p. 37). Thus, the ability of humans to be thoughtfully active or differentiated and not emotionally reactive in any given situation allows humans the freedom to assess and reassess their behavior patterns that can result in healthy personal behavioral change and good mental health (Bitter, 2014; Bowen & Kerr, 1988; Frost, 2014; Murdock, 2009; Skowron et al., 2014; Titelman, 2014). Healthy relationship patterns can be actively formed to improve quality of life, as opposed to dysfunctional and unhealthy behavior patterns that can result in poor mental health in individuals and families (Bowen & Kerr, 1988; Crossno, 2011; Popovic, 2019).

To assess differentiation and help improve quality of life in humans, various assessment tools were developed. The most commonly used include the Level of Differentiation of Self

Scale or LDSS (Haber, 1990), Differentiation of Self Inventory or DSI (Skowron & Friedlander, 1998), Differentiation of Self Inventory-Revised or DSI-R (Skowron & Schmitt, 2003), and the Differentiation of Self-Short Form or DSI-SF (Drake, 2011). In clinical practice, the DSI-R is the most widely used assessment tool (Skowron & Schmitt, 2003); however, the DSI-R and other instruments were normed on predominantly White, Euro-American participants.

In response to a multicultural view of Bowen's theory, McGoldrick and Hardy (2008) extended Bowen's theory to account for different cultural experiences from a de-colonization standpoint, moving away from standard ethnocentric and individualistic frameworks to a framework that includes diverse experiences. When approaching Bowen's family systems theory in a culturally responsive way, several authors alluded to the inclusion of the collectivistic and transcultural perspectives, in addition to the individualistic perspective (McGoldrick & Hardy, 2008; Mitriani et. al., 2004; Smith & Montilla, 2009; Turner & Pope, 2009; Vontress, 2012). A collectivistic culture context differs from an individualistic culture context in that individuals' cultural values and norms are linked through communal experiences with other people by giving priority to the goals of the collective over their own goals. Whereas, in an individualistic context, individuals place their values and norms on independence of self from other people. They are primarily motivated by their own preferences, needs, and rights by giving priority to their personal goals over the goals of others. Also, they emphasize rational analyses of the advantages and disadvantages of associating with others (Crozier & Davies, 2006; Hofstede, 2011; Lee & Mock, 2005; McGoldrick & Hardy, 2008; Triandis, 1995). In comparison, a transcultural context differs from individualistic and collectivistic culture contexts by merging an individual's cultural values and norms through simultaneous or overtime experiences with multiple people "that span

geographic, cultural, and political borders” and involve both individualistic and collectivistic cultural values (Falicov, 2008, p. 26).

Problem Statement

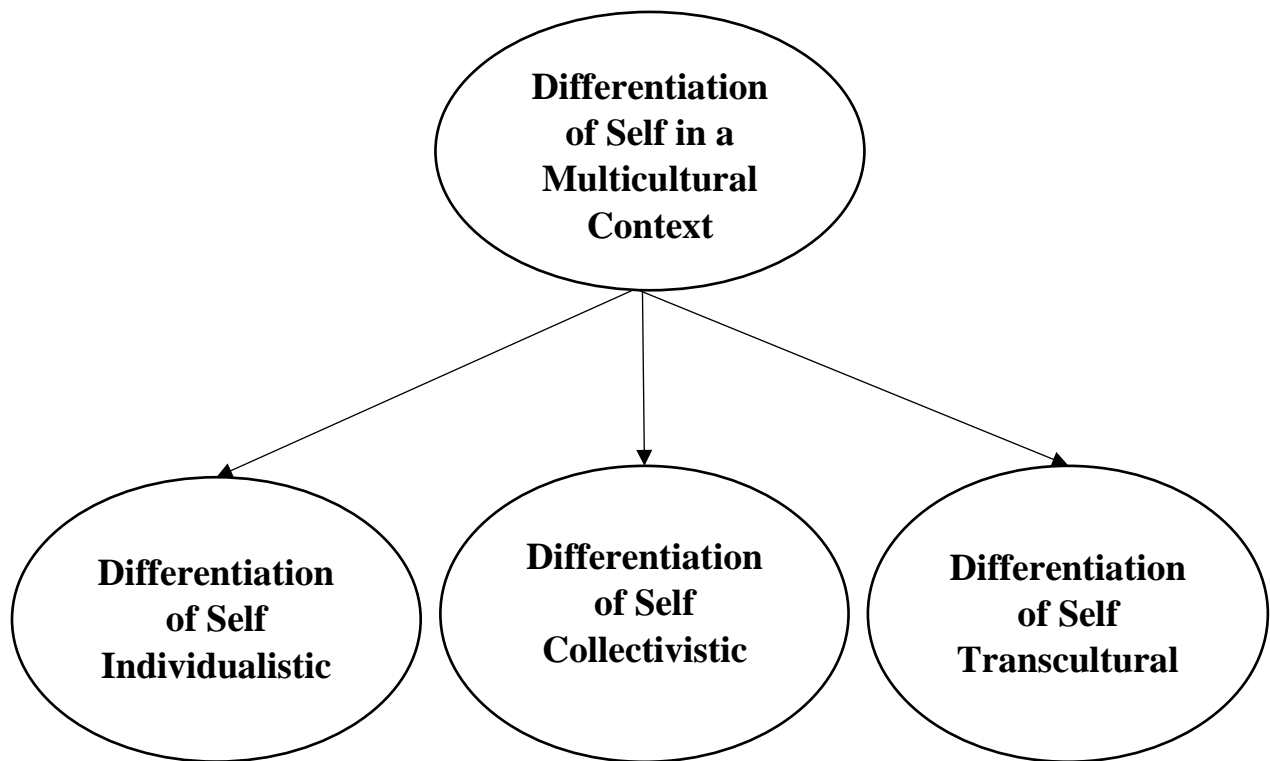
In western literature, a common phenomenon is the unacknowledged cultural values and beliefs of theorists and researchers in the context of their theory development and/or assessment instruments (McGoldrick & Hardy, 2008; Mitriani et. al., 2004; O’Hara & Meteyard, 2011; Triandis, 1995; Sedlacek & Kim, 1995; Vontress, 2012). For example, individualistic cultural values are generally inherent in the Euro-American culture that are usually associated with great American thinkers such as the founding father of individualism, Ralph Waldo Emerson (Bellah et al., 1985). A similar argument is formulated regarding the founder of family systems theory, Murray Bowen, who was a White Euro-American male. Previously, authors have noted that Bowen argued that his theory was grounded in scientific facts that transcended interpretive concepts such as culture (Bourne, 2011; Bowen & Kerr, 1988). Nel (2011) stated that it is no surprise that Bowen’s concept of differentiation of self is grounded in an individualistic cultural context because Bowen’s ideas were heavily influenced by values of individualism from his Euro-American cultural perspective. However, according to Hofstede (2001), Hofstede et al., (2010), and Vontress (2012); no one is immune to the socio-cultural conditioning that takes place from birth.

Researchers have called for cultural considerations when assessing individuals’ differentiation of self in their family of origin to include other cultural contexts in addition to an individualistic context (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O’Hara & Meteyard, 2011), such as a collectivistic (Triandis, 1995) and transcultural contexts (Richter & Nollert, 2014). When utilizing only an individualistic context, the importance of *community* that

is emphasized in a collectivistic culture context and the integration of both the *individual* and *community* that is emphasized in a *transcultural* context are missing (McGoldrick & Hardy, 2008; Richter & Nollert, 2014). The original construct of differentiation of self has not been reconceptualized to include cultural contexts from collective and transcultural experiences as reflected in the present research. For an accurate clinical assessment and inclusive cultural perspective, a culturally valid instrument is needed to assess individuals' levels of differentiation of self in all three cultural contexts (i.e., individualistic, collectivistic, transcultural; Alaedin, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015) as depicted in Figure 1.

Figure 1

Reconceptualized Differentiation of Self in a Multicultural Context



Note. Differentiation of self-individualistic or differentiation of self in an individualistic culture context is the ability to “think and reflect, to not automatically respond to internal and external emotional stimuli gives ... [one] the ability to restrain selfish and spiteful urges, even during

periods of high anxiety” (Bowen & Kerr, 1988, p. 94). An individual “with the ability and motivation can become more of *a self* in ...[one’s] family and other relationship systems” with values of *independence* (p. 107). Differentiation of self-collectivistic or differentiation of self in a collectivistic culture context is the ability to think and reflect, to not automatically respond to internal and external emotional stimuli gives ... [one] the ability to restrain selfish and spiteful urges, even during periods of high anxiety” (Bowen & Kerr, 1988, p. 94). An individual “with the ability and motivation can” become more of a member of one’s “family and other relationship systems” in a community, with values of *interdependence*. Differentiation of self-transcultural or differentiation of self in a transcultural context is the ability to “think and reflect, to not automatically respond to internal and external emotional stimuli gives ... [one] the ability to restrain selfish and spiteful urges, even during periods of high anxiety” (Bowen & Kerr, 1988, p. 94). An individual “with the ability and motivation can” become more of *a self and a member* of one’s “family and other relationship systems,” in a community by integrating values of *independence* and *interdependence*.

Overview of Methods

The research design adopted in the present research is a quantitative non-experimental design. Descriptive, correlations, and an exploratory factor analysis (EFA) were used as the methods of data analysis. The Multicultural Differentiation of Self Inventory (MDSI), a multicultural assessment instrument was developed to assess differentiation of self in multiple cultural contexts by creating items that represented differentiation of self in individualistic, collectivistic, and transcultural contexts. The MDSI was created based on the recommendations from Abell et al. (2009) and Tran et al. (2017) for cross-cultural instrument development. Abell et al. (2009) suggested using an EFA for the development of psychological instruments with the

purpose of measuring latent unobserved traits. When using a psychological instrument, they explained that unobserved variables are used to represent latent traits, which are defined as domain boundaries. Abell et al. further clarified that the elements needed for an EFA are “observed item responses [that] are predicted by latent traits” thereby, the multiple scale items are the observed variables used to measure aspects of the underlying latent trait(s) or unobserved variables (p. 131). Thus, an EFA was used to assess whether unobservable latent traits exist using the observed variables in the MDSI.

In addition, Tran et al. (2017) recommended that developing a new instrument should involve an extensive review of the literature, a culturally diverse sample population, expert panelists on types of cultures, and assessments of conceptual and measurement equivalence; meaning, terms should be understood and measured as the same across cultures. Also, in quantitative research, cross-cultural instrument development should include cross-cultural validity and reliability (Abell et al., 2009; Tran et al., 2017).

Research Questions

The focus of the present research was on the following research questions and corresponding hypotheses:

Research Question One

Will participants’ demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S., residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) be diverse?

Hypothesis One

Participants' demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S., residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) will be diverse.

Research Question Two

Will factors be derived from participants' Multicultural Differentiation of Self (MDSI) scores using an exploratory factor analysis?

Hypothesis Two

Factors will be derived from participants' Multicultural Differentiation of Self scores using an exploratory factor analysis.

Research Question Three

Does internal consistency exist in the Multicultural Differentiation of Self Inventory's (MDSI's) factors?

Hypothesis Three

Internal consistency will exist for the Multicultural Differentiation of Self's factors.

Research Question Four

Is there a significant relationship between participants' Multicultural Differentiation of Self Inventory (MDSI) scores and their Individualism-Collectivism Revised (INDCOL-R) Scale scores?

Hypothesis Four

A significant relationship will exist between participants' Multicultural Differentiation of Self Inventory scores and their Individualism-Collectivism Revised scale scores.

Research Question Five

Is there a significant relationship between participants' Multicultural Differentiation of Self (MDSI) scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Hypothesis Five

There will be significant relationships between participants' Multicultural Differentiation of Self scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting).

Research Question Six

Does internal consistency exist in the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Hypothesis Six

Internal consistency will exist for the Multicultural Differentiation of Self's factors.

Research Question Seven

Is there a significant relationship between the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Hypothesis Seven

A significant relationship will exist between participants' INDCOL-R Scale and dimensions.

Research Question Eight

Is there a significant relationship between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Hypothesis Eight

There will be significant relationships between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting).

Limitations

Several limitations are involved in the present research. Limitations are technical realities of research that are out of the researcher's control (Leedy & Ormrod, 2010). First, in the present research, the use of a convenience sampling, rather than random sampling, restricted generalizability of the results to a specific population (Coladarci & Cobb, 2014; Creswell, 2018; Field, 2013). Second, due to increased personal stress and isolation from the COVID-19 pandemic, participants' scores may be impacted by their current circumstances. Third, due to the subjective nature of self-report assessments, social desirability cannot be controlled. Last, this researcher has present and prior connections with some individuals at some of the 33 southeast U.S. universities where data was collected due to the locality of the convenience sampling.

Although no known relationships exist with future participants, a possibility exists that pre-existing relationships with future participants can occur, thus limiting how individuals participate.

Delimitations

Delimitations of research define the boundaries and characteristics that are in the researcher's control (Leedy & Ormrod, 2010). Delimitations of the present research include a focus on the research problem that no instrument exists to assess differentiation of self in multiple cultural contexts, the strict research focus on the development and cultural validity of the MDSI. Other delimitations of this research include a focus on family systems theory as the conceptual framework, the population of international, national, regional, and local graduate students aged 22 or above at university settings in southeast U.S., and lastly, the use of a factor analysis to develop and validate a multicultural instrument.

Assumptions of the Study

Assumptions of the present research include basic principles that without which the research would not be possible (Leedy & Ormrod, 2010). The first assumption is that participants answered questions on the MDSI honestly. This assumption was addressed by using participant anonymity and confidentiality, in addition to voluntary participation that included the opportunity for a participant's withdrawal at any time. A second assumption was that the chosen sample would be representative of the population that a multicultural instrument, the MDSI should measure. This assumption was addressed by a convenience sample targeting international, national, regional, and local populations at 33 universities in southeast U.S.

Definition of Terms

Chronic Anxiety

Chronic anxiety is “a system or process of actions and reactions that, once triggered, quickly provides its own momentum and becomes largely independent of the initial triggering stimuli” (Bowen & Kerr, pp. 112-113).

Collectivistic Cultural Context

Collectivistic cultural context is defined as “a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of, and duties imposed by, those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives” (Triandis, 1995, p. 2).

Culture

Culture is inherently *subjective* and defined as “shared beliefs, attitudes, norms, roles, and values found among speakers of a particular language who live during the same historical period in a specified geographic region. These shared elements of subjective culture are usually transferred from generation to generation” (Triandis, 1995, p. 6).

Differentiation of Self

See chapter two for a discussion on the complexity and difficulty in defining the concept of differentiation of self.

Individualistic Cultural Context

Individualistic cultural context is defined as “a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preferences, needs, rights, and the contracts they have established with others; give

priority to their personal goals over the goals of others; and emphasize rational analyses of the advantages and disadvantages of associating with others” (Triandis, 1995, p. 2).

Transcultural Cultural Context

Transcultural cultural context is defined as a perspective through which an individual can perceive their “attachments across various cultures” through “migration and the boundedness of social spaces” as well as experiencing the “cultural boundedness of other concepts such as multiculturalism or assimilation.” Multiculturalism and acculturation exist under the broader concept of transculturalism since “transculturalism refers to the symmetric merging of elements from different cultures” (Richter & Nollert, 2014, p. 461).

Chapter II

Literature Review

A review of the literature is presented in this chapter regarding the following: (a) Bowen's family systems theory, (b) differentiation of self, (c) differentiation of self, (d) differentiation of self: individuals and families, (e) assessment instruments for differentiation of self, (f) critiques of differentiation of self instruments, (g) differentiation of self and diversity, (h) types of cultural contexts, and (i) culture and differentiation of self.

Bowen's Family Systems Theory

Since the 1960's, Murray Bowen's (1978) family systems theory has been utilized in the conceptualization and treatment of mental illness stemming from chronic anxiety. As practiced in the U.S. today, the 1960's family therapy movement began across western continents in psychology and psychiatry (Bitter, 2014). However, the roots of family theory and therapy began over 100 years ago during the time of the Austrian psychotherapist, Alfred Adler, who situated psychological symptomology in problematic caregiver and child relationships. For long-term therapeutic and healthy change, family therapists recognized that working on clients' interpersonal and relational contexts were as important as, if not more important than, their intrapsychic contexts (Bitter, 2014; Patterson & Watkins, 1996).

Through Bowen's (1978) clinical work, he recognized the importance of systemic change in interpersonal functioning for longer lasting intrapsychic change, specifically when working with patients diagnosed with schizophrenia. Bowen published papers related to his unfolding theory and recruited the input of his protégé, Michael Kerr, in the co-authored book, *Family evaluation: An approach based on Bowen theory*, where they laid out eight interlocking theoretical concepts (Bowen & Kerr, 1988). Bowen grounded his theory in the natural systems,

an approach based in the science of homeostasis of natural organisms in the universe (Bitter, 2014; Bowen & Kerr, 1988; Frost, 2014; Murdock, 2009; Skowron et al., 2014; Titelman, 2014). After Bowen's death in 1990, Kerr (2019) continued research on Bowen's theory and further elaborated on the eight concepts in his recent book, *Bowen theory secrets: Revealing the hidden life of families*.

Eight Interlocking Theoretical Concepts

The eight interlocking concepts are viewed as regulating the unconscious movement among living organisms, which are: (a) emotional system, (b) multigenerational emotional process, (c) chronic anxiety, (d) nuclear family emotional process, (e) individuality and togetherness forces, (f) triangulation, (g) symptom development, and (h) differentiation of self (Bitter, 2014; Bowen & Kerr, 1988; Crossno, 2011; Frost, 2014; Kerr, 2019; Papero, 2014; Popovic, 2019; Titelman, 2014). Bowen and Kerr (1988) postulated that therapists must understand the eight interlocking concepts of an individual's emotional functioning.

The first interlocking concept, emotional system, is an interaction of unconscious forces that work in homeostasis to provide balance to natural systems, including the solar system, animal kingdom, human beings, and other living organisms. An individual's emotional reactions are involuntary acts and are usually rooted in the larger context of a family; which is the second interlocking concept, the multigenerational emotional process (Bowen, 1978; Bowen & Kerr, 1988; Kerr, 2019). The multigenerational emotional process connects individuals and their nuclear family units to the broader systemic history of changes towards or away from chronic anxiety or differentiation of self that were nested in previous generations (Bowen & Kerr, 1988; Crossno, 2011; Frost, 2014; Kerr, 2019; Murdock, 2009; Popovic, 2019; Titelman, 2014).

Children individually inherit different levels of differentiation of self that are based on whether they are more or less prone to developing symptoms (Frost, 2014).

The third concept, chronic anxiety, is “a response to perceived or imagined threat that is usually unlimited in time” as opposed to acute anxiety that is time-limited (Titelman, 2014, p. 29). An individual’s response to an existing threat experienced through chronic anxiety is inherently emotional and the threat “can range on a continuum from real to imaginary” (Frost, 2014, p. 309). Stress due to a real threat can be adaptive; whereas, stress due to an imaginary threat can become chronic. Chronic anxiety is one of the most important Bowen concepts (Titelman, 2014). The fourth interlocking concept, the nuclear family emotional process, involves individuals establishing emotional patterns that influence their ability to adapt to stressors (Comella, 2011; Murdock, 2009; Popovic, 2019) and the interplay of the individuality and togetherness forces, the fifth interlocking concept. The fifth concept represents individuals in any two-person relationship being emotionally pulled towards or away from one another; rendering the relationship unstable (Bowen & Kerr, 1988). The inherent instability in any two-person relationship is represented by emotional reactivity, which is the root cause of anxiety. Emotional reactivity is the manifestation of chronic anxiety, as well as “the behavioral and physiological expression of anxiety, acute or chronic, in response to another individual” (Titelman, 2014, p. 29). Both, chronic anxiety and emotional reactivity are intense processes that are negatively correlated with differentiation of self in which a more differentiated experience lessens emotional reactivity; such as “attacking, denying, distancing” (p. 30).

The sixth interlocking concept, triangulation, is a natural anxiety-binding mechanism that maintains emotional stability for most people (Bowen & Kerr, 1988; Crossno, 2011; Popovic, 2019) and stabilizes the interaction of individuality and togetherness forces seen in a two-person

relationship with the involvement of a third individual, object, or process (Comella, 2011; Crossno, 2011; Lassiter, 2008; Popovic, 2019; Titelman, 2008). The individual with the most anxiety becomes symptomatic through physical, psychological, and/or social symptoms; known as symptom development, the seventh interlocking concept (Crossno, 2011; Frost, 2014; Kerr, 2019; Popovic, 2019; Titelman, 2014). For example, if a couple who is engaged in chronic conflict has a child, a hyper-focus on the child results in a temporary decrease of chronic conflict and the child carrying the anxiety becomes symptomatic. The eighth interlocking concept, differentiation of self is arguably the central or “cornerstone” concept in Bowen’s family systems theory (Titelman, 2014, p. 29). Although seven of the interlocking concepts are important when conceptualizing the broader theoretical framework of family systems, differentiation of self is important to understanding an individual’s daily functioning.

Differentiation of Self

Bowen and Kerr (1988) described differentiation of self as “the ability to think and reflect, to not automatically respond to internal and external emotional stimuli, gives man the ability to restrain selfish and spiteful urges, even during periods of high anxiety” (p. 94). Kerr (personal communication, November 14, 2019) believed that defining differentiation of self was a “tough task” and varies due to the comprehensive nature of the concept. Skowron and Friedlander (1998) used a two-part definition of differentiation of self as “the degree to which one is able to balance (a) emotional and intellectual functioning and (b) intimacy and autonomy in relationships” (p. 235). More recently, Skowron et al. (2014) and Connery and Murdock (2019) used the two-part definition of differentiation as having both intrapersonal and interpersonal dimensions. Drake et al. (2015) described specific aspects of differentiation as “the ability to balance the pulls of individuality and togetherness,” “the ability to think rationally in

the midst of emotional situations,” and that “highly differentiated individuals are able to maintain close emotional relationships while simultaneously maintaining a solid sense of self” (p. 101).

Theoretical Scale of Differentiation

Kerr (personal communication, November 14, 2019) stated that the “best sources for putting together a ‘definition’ of differentiation” is to compare descriptive scores based on Bowen’s scale of differentiation, where 0 represents no differentiation and high emotional reactivity, “people in the lowest quarter... (0 to 25)”; and 100 represents maximum differentiation, those “in the upper quarter (75 to 100).” Bowen’s (1978) scale is not a measurement instrument, has no “diagnostic categories,” applies to all humans, and transcends man-made categories, such as culture (p. 162). Bowen and Kerr’s (1988) scale includes four descriptive ranges.

Differentiation Range of 0-25

People in the lowest quarter of the scale ... are those with the most intense degree of “ego fusion” and with little “differentiation of self.” They live in a “feeling” world ... They are dependent on the feelings of those about them. So much of the life energy goes into maintaining the relationship system about them. ... They cannot differentiate between a “feeling” system and an “intellectual” system. ... They are incapable of using the “differentiated *I*” (I am-I believe-I will do-I will not do) in their relationships with others. ... They grew up as dependent appendages of their parental ego masses and in their life course they attempt to find other dependent attachments from which they can borrow enough strength to function. Some are able to maintain a sufficient system of dependent attachments to function through life without symptoms. (p. 162)

Differentiation Range of 25-50

People in the second quarter of the scale ... are those with less intense ego fusions and with either a poorly defined self or a budding capacity to differentiate a self. ... a person in the 30 range has many of the characteristics of “lower scale” people, and those between 40 and 50 have more characteristics of a higher scale. ... From 50 down it is increasingly a *feeling* world except for those at the extreme lower end who can be too miserable to feel. A typical *feeling* person is one who is responsive to emotional harmony or disharmony about him. ... People in this group do have some awareness of opinions and beliefs from the intellectual systems but the budding “self” is usually so fused with the feelings that it is expressed in dogmatic authoritativeness, in the compliance of a disciple, or in the opposition of a rebel. ... people in the lower part of this segment of the scale, under stress, will develop transient psychotic episodes, delinquency problems, and other symptoms of that intensity. Those in the upper range ... develop neurotic problems. The main difference between this segment and the lower quarter ... is that these people have some capacity for the differentiation of selfs. ... The *probability* for differentiation is much higher in the 35–50 range. (p. 162-163)

Differentiation Range of 50-75

People in the third quarter ... are those with higher levels of differentiation and much lower degrees of ego fusions. Those in this group have fairly well-defined opinions and beliefs on most essential issues, but pressure for conformity is great, and under sufficient stress they can compromise principle and make feeling decisions rather than risk the displeasure of others by standing on their convictions. They often remain silent and avoid stating opinions that might put them out of step with the crowd and disturb the emotional

equilibrium. People in this group have more energy for goal-directed activity and less energy tied up in keeping the emotional system in equilibrium. Under sufficient stress they can develop fairly severe emotional or physical symptoms, but symptoms are more episodic and recovery is much faster. (p. 163-164)

Differentiation Range of 75-100

[For] People in the upper quarter ... [it] is essentially impossible for anyone to have *all* the characteristics [of] 100. ... those that fall in the 85 to 95 range ... include most of the characteristics of a 'differentiated' person. These are principle-oriented, goal-directed people who have many of the qualities that have been called "inner-directed." ... They are always sure of their beliefs and convictions but are never dogmatic or fixed in thinking. They can hear and evaluate the viewpoints of others and discard old beliefs in favor of new. They are sufficiently secure within themselves that functioning is not affected by either praise or criticism from others. ... With the ability to keep emotional functioning contained within the boundaries of self, they are free to move about in any relationship system and engage in a whole spectrum of intense relationships without a "need" for the other that can impair functioning. ... They can maintain well-defined selves and engage in intense emotional relationships at the same time. (p. 164)

Differentiation of Self: Individuals and Families

People "with the ability and motivation can, through a gradual process of learning that is converted into action, become more of a self in his family and other relationship systems" (Bowen & Kerr, p. 107). The more differentiated people are, the more they are "an individual *while in emotional contact with the group*" (p. 94). Exercising differentiation of self in an individual's family of origin, including parents and siblings, is an essential part of becoming free

from the systemic influence that the family may have on an individual, which in turn results in greater differentiation of self in relationships (Bowen, 1978; Bowen & Kerr, 1988; Comella, 2011; Crossno, 2011; Popovic, 2019). Choi and Murdock (2017) found that with 260 (i.e., 171 White/European American, 34 Black/African American, 14 Hispanic, 11 Asian/Pacific Islander, 2 American Indian/Alaska Native, 13 Bi/Multicultural, 12 International Student, 1 Other) university students who completed the Differentiation of Self Inventory-Short Form (DSI-SF) as well as interpersonal conflict, anger, and depression inventories; students' decreased emotional regulation and externalized anger predicted their increased interpersonal conflict.

For data collected with married couples in three stages with at least 1 year apart, Handley et al. (2019) found differences with 342 heterosexual couples (i.e., 269 European American, 9 African American, 5 Asian American, 2 Hispanic, 57 Multi-ethnic). Wives' scores for ER (M , SD = 3.39, 1.02; 3.31, 1.00; 3.02, 1.01; respectively) and EC (M , SD = 1.89, .78; 1.92, .81; 1.86, .82; respectively) were different than their husbands' scores for emotional reactivity (ER) (M , SD = 2.87, .87; 2.85, .92; 2.54, .90; respectively) and EC (M , SD = 2.09, .77; 2.12, .79; 1.95, .81; respectively). They also found that EC factor correlations were significant but minimal symmetrical nonindependence between men and women at all three stages (r = .21, .23, .20; respectively), but for ER only the first and last waves (r = .13, .12; respectively) were minimal but significant and the second was not significant, which indicated partial support for Bowen's concept that similar differentiation levels existed between married couples. Bartle (1993) found that with 39 married and 53 dating couples, no significant difference was found between married and dating couples and randomly matched pairs, which indicated no evidence exists to confirm Bowen's theory that couples select partners at the same level of differentiation of self.

Signs of undifferentiation within the nuclear family unit, such as undifferentiation with an individual's partner and children, include chronic marital conflict, dysfunction in a partner, and/or projection onto one or more children in a family (Bowen, 1978; Crossno, 2011; Kerr, 2019; Popovic, 2019). Elieson and Rubin (2001) found that with 301 adults (i.e., 100 clinically depressed people, 100 students, 101 internet users) who were recruited from a psychiatric private practice, psychology students at a university, and World Wide Web users, their differentiation of self was significantly and negatively correlated ($r = -.59$) with clinical depression. Overall, people with higher depression indicated lower differentiation. In addition, group differences indicated that people who were clinically depressed had significantly lower differentiation than students, whereas internet users had significantly lower differentiation than depressed participants and students.

Constantine (2003) and Frost (2014) described differentiation on a continuum. Gushue and Frost (2014) stated that differentiation of self "refers both to the degree of fusion between intellectual and emotional functioning in an individual and the degree to which one self fuses or merges into another self in a close emotional relationship" (p. 304). Research confirmed differentiation of self as contradicting symptom development at different stages of life. In early adulthood, Skowron et al. (2009) found that with 132 (92.4% European-American, 3.1% Asian American, 1.6% Hispanic/Latina, 0.8% Native American) university students who completed the DSI and interpersonal functioning and mental health outcome inventories had increased interpersonal and intrapsychic functioning and decreased interpersonal and psychological distress, which overtime predicted increased differentiation in their relationships. A combined increase in the Emotional Reactivity (ER) subscale of the DSI and the Fusion with Others (FO)

predicted students' increased intrusiveness, poor boundaries, controlling behaviors, inability to consider others' viewpoint, and interpersonal limit setting.

Haber (1990) connected a person's intellectual functioning with differentiation, by describing differentiation as "the degree to which a person can maintain intellectual system functioning as opposed to being controlled by emotional forces within the relationship system" (p. 320). People with higher levels of differentiation have the "capacity to distinguish between thinking and feeling processes, regulate strong emotion, and think clearly under stress" (Skowron et al., 2014). Whereas, people with lower levels of differentiation are "more emotionally reactive, and have difficulty thinking under stress and maintaining a solid sense of self in close relationships" (p. 356). Bowen and Kerr (1988) described the difference between feelings and emotions. Feelings, such as anger or sadness, result from the automatic and unconscious interplay of forces in the natural system, whereas emotions are representative of the automatic and unconscious forces. Thus, when individuals are emotionally reactive and act automatically, they are unable to regulate their feelings based on their thoughts (Crossno, 2011; Popovic, 2019; Titelman, 2014).

Kim-Appel et al. (2007) found that interpersonal and intergenerational family processes significantly predicted an older adult population's differentiation of self. They found an inverse relationship between older adults' differentiation of self and their psychological symptoms. Also, Johnson and Smith (2011) found that with 813 (727 Caucasian/Anglo Americans, 29 Native Americans, 14 Asian Americans, 11 Hispanic/Latino Americans, 7 African Americans, 17 Other) students from a large US university, multiple regression analysis indicated differentiation of self significantly predicted social interest ($R^2 = .13$), increased emotional cutoff (EC)

predicted increased social interest and increased I-Position (IP) predicted increased social interest. However, ER did not significantly predict social interest.

Maser's (2011) found that differentiation (IP) as well as a lack of differentiation (i.e., Emotional Reactivity/ER and EC) was increased in a nonclinical sample versus a clinical sample, which indicated only partial support for Bowen's concept of a negative correlation between differentiation of self and symptomology. Similarly, a meta-analysis conducted by Miller et al. (2004) had mixed support for Bowen's theoretical concepts. Contrary to Maser (2011), Miller et al. found a negative correlation between differentiation and chronic anxiety and psychological distress, and a positive relationship with marital satisfaction. However, they also found little to no support for Bowen's ideas of sibling position, triangulation, and that people marry at same differentiation levels. Miller et al. suggested that more research is needed on Bowen's ideas about multigenerational emotional process, the universality of Bowen's theory, and the impact of differentiation on children, physical health, and adaptability.

Assessment Instruments for Differentiation of Self

After many attempts to define differentiation of self, several instruments were developed to measure the construct of differentiation in individuals. Bowen did not empirically test or develop his scale into a psychometric instrument (Haber, 1990). However, scores on the theoretical scale of differentiation have been used by researchers to compare scores on current instruments to ensure accurate representation of Bowen's differentiation of self (DSI, Skowron & Friedlander, 1998; DSI-R, Skowron & Schmitt, 2003). Researchers developed several instruments to assess differentiation of self in individuals and families. In 1978, Kear created the Differentiation of Self Scale (DOSS). Soon after, Garfinkel (1980) developed the 20-item Family Systems Personality Profile (FSPP). After a decade and within the span of three years,

McCullum (1991) created the Emotional Cutoff Scale (ECS), Anderson and Sabatelli (1992) created the Differentiation in the Family System Scale (DIFS), and Haber (1990) introduced the Level of Differentiation of Self Scale (LDSS). More recently, Peleg and Biton (2015) created the Satisfaction with Family Interactions (SFI) to assesses “satisfaction with differentiation of self through circle drawing” (p. 72). Subsequently, Peleg and Tziscinsky (2015) revised and validated the SFI-R. Later, between 1998 and 2015, researchers developed seminal instruments to assess differentiation of self, which included the DSI (Skowron & Friedlander, 1998), DSI-R (Skowron & Schmitt, 2003), and DSI-SF (Drake et al., 2015). The LDSS and the DSI are most commonly used instruments to assess differentiation of self in clinical practice (Drake, 2011).

Level of Differentiation of Self Scale

Using the LDSS, Haber (1990) conducted three phases of research to assess “the degree to which a person maintains intellectual functioning as opposed to being controlled by emotional forces within relationship systems, particularly the family system” (p. 320). In phase one, pilot research was conducted with expert feedback from two family therapists that reduced the 100 items to 32 in the LDSS, which included two dimensions (i.e., 19-item emotional maturity, EM; 13-item emotional dependence, ED). The LDSS was administered to 257 university undergraduates and graduates that resulted in high reliability for the EM ($\alpha = .86$) and ED ($\alpha = .83$). In the second phase, Haber administered the 32-item LDSS and two marital assessment tools to 336 high school graduates (i.e., approximately 99% Caucasian), which resulted in high reliability again ($\alpha = .86$, EM; $.80$, ED). In the third phase, the 32-item LDSS, as well as anxiety, life experience, and behavior inventories were administered to 372 people (83% Caucasian, 10% Black, 5.1% Hispanic, 1.9% Asian) from community groups, education classes, work settings, and community college, which indicated high reliability ($\alpha = .86$, EM; $.83$, ED). Similar to the

second phase, the EM factor accounted for 82.1% of the common variance. Eight ER and EM items were combined for the final 24-item LDSS, representing a unidimensional instrument with high reliability for the EM factor ($\alpha = .91$).

Differentiation of Self Inventory

Skowron and Friedlander (1998) conducted three phases of research to develop and validate the DSI. First, 96 empirically based items were identified with 313 faculty and staff from a university, parents of children on an athletic team, graduate students from psychology and social work, and friends and acquaintances of the researchers (213 women, 98 men, 2 nonspecific). The majority were White (82.7%) and 16.9% were remaining participants (5.1% African American, 4.5% Asian American, 2.2% Latino-Latina, 1.9% Native-American, and 3.2% Other). A principle components analysis (PCA), scree plot, eigenvalues of 11.43 to 3.34, and $> .40$ loading on a factor resulted in 44 items with four DSI subscales. Additionally, participants' differentiation of self was related to anxiety (see Table 1).

In the second phase, due to a large unaccounted variance, 26%; a construct item analysis was conducted on four or five items for each subscale with the largest correlations from the previous 44-item DSI to address social desirability bias. Also, two experts reviewed 78 author generated items along with definitions for each subscale that resulted in two subscales being renamed (i.e., Reactive Distancing to EC and Fusion with Parents to FO). Then, 169 men (58) and women (111) from a state agency, whose ethnicity was largely White (90.4%, 5.4% African American, 0.6% each for Asian American, Latino-Latina, Native American, and 2.4% Other) completed the 78 item DSI. For the DSI and subscale scores, higher Likert ratings indicated more differentiation. For 35 items, low consistencies (i.e., $< .45$) resulted and were eliminated. Correlations for the DSI and each of the four subscales were found. Also, social desirability

correlations with the DSI subscales ranged from $-.02$ to $.49$ and the DSI scores ranged from $-.15$ to $.49$ (see Table 1).

The third phase included a confirmatory factor analysis on the 43-item DSI with 127 women (70), men (53), and one gender unspecified of university staff, faculty, and spouses who were mostly White (90.5%, 4.0% African American, 2.4% Asian American, 1.6% Latino-Latina, 0.8% Native American). The results indicated that women were more emotionally reactive than men and younger participants experienced more difficulty with fusion. A multiple regression showed that increased differentiation resulted in decreased symptomatic distress, as well as increased emotional reactivity and EC predicted greater symptomatic distress. Additionally, for married participants (59.9%) higher DSI scores and lower EC scores indicated increased marital satisfaction.

Differentiation of Self Inventory-Revised

Due to lower reliability for the FO, Skowron and Schmitt (2003) revised the 43-item DSI with 225 women (79%) and men (21%) from parent, relationship, and genealogy groups who were mostly European American (86.6%, 4.9% biracial/multiracial, 1.8% African American, 0.8% Asian American/Pacific Islander, 0.9% Latino, 1.3% Native American). Expert feedback and factor loadings of $< .40$ ($.29$ to $.39$) were used. The FO subscale was expanded and reduced from 22 to 12 items. The 46-item DSI-R and four subscales correlations were found with measures of personal authority and relationships. A multiple regression indicated that “greater spousal fusion, intergenerational fusion, fear of abandonment, and desire to merge with partner, taken together, predicted more fusion with others on the DSI-R” (p. 216; see Table 1).

Table 1*DSI Item Correlations for Scale and Subscales*

Name	# Items	Subscale	Total	Subscale	Subscale	Subscale	Subscale
1 st DSI	96 to 44		DSI	ER	IP	RD	FP
# of Items			44	12	10	13	9
Alphas			.88	.83	.80	.80	.82
Correlations		ER	.80				
		IP	.65	.37			
		RD	.75	.45	.34		
		FP	.59	.31	.17	.18	
2 nd DSI	78 to 43		DSI	ER	IP	EC	FO
# of Items			43	11	11	12	9
Alphas			.88	.84	.83	.82	.74
Correlations		ER	.80				
		IP	.61	.46			
		EC	.64	.27	.31		
		FO	.43	.53	.08	-.12	
DSI-R	46		DSI-R	ER	IP	EC	FO
# of Items			46	11	11	12	12
Alphas			.92	.89	.81	.84	.86
Correlations		ER	.86				
		IP	.75	.56			
		EC	.62	.39	.24		
		FO	.80	.66	.54	.24	
1 st DSI-SF	20		DSI-SF	ER	IP	EC	FO
# of Items			20	6	6	3	5
Alphas			.89	.84	.72	.81	.74
2 nd DSI-SF	20		DSI-SF	ER	IP	EC	FO
# of Items			20	6	6	3	5
Alphas			.88	.80	.70	.79	.68
Correlations		ER	.82				
		IP	.71	.58			

Name	# Items	Subscale	Total	Subscale	Subscale	Subscale	Subscale
		EC	.69	.32	.24		
		FO	.82	.67	.51	.35	
3 rd DSI-SF	20		DSI-SF	ER	IP	EC	FO
# of Items			20	6	6	3	5
Coefficients			.85	.82	.74	.81	.72

Note. 1st DSI Phase: ER = Emotional Reactivity, IP = I-Position, RD = Reactive Distancing, and FP = Fusion with Parents. 2nd DSI Phase: ER = Emotional Reactivity, IP = I-Position, EC = Emotional Cutoff, and FO = Fusion with Others. 3rd DSI Phase: ER, IP, EC, and FO same as 2nd Phase (DSI, Skowron & Friedlander, 1998). DSI-R Research: ER, IP, EC, and FO same as 2nd and 3rd DSI Phases; and FA = Fear of Abandonment, DM = Desire to Merge, SF = Spousal Fusion, and II = Intergenerational Individuation, IF = Intergenerational Fusion (Skowron & Schmitt, 2003); 1st DSI-SF Phase: ER = Emotional Reactivity, IP = I-Position, EC = Emotional Cutoff, and FO = Fusion with Others; 2nd and 3rd DSI-SF Phases: Same as 1st Phase (Drake et al., 2015).

Differentiation of Self Inventory-Short Form

For reduction in client burden and increased response in the clinical setting, Drake et al. (2015) conducted three phases of research and shortened the DSI-R to create the 20-item DSI-SF. Using results from previous research, phase one included 344 participants (55.5% female), mostly Caucasian (71.2%, 14.8% African American, 4.4% Hispanic, 5.8% Asian or Pacific Islander, 3.8% Other) from a Midwestern university who completed the DSI-R and other measures of stress and distress. Samejima's (1969) graded response model and other criteria related to differentiation resulted in item reduction from 46 to 20 items and goodness of fit for the DSI-R and four subscales, in addition to high reliability. In the second phase, construct and criterion validity was established with 392 women, 202 men, and one undisclosed gender who were mostly Caucasian (67.7%, 12.1% Asian or Pacific Islander, 8.8% African American, 8.1% Other) from a Midwest university. The 20-item DSI-SF and the four subscales correlations were found with measures of stress, anxiety, depression, self-esteem and differentiation. In the third

phase, test-retest reliability established further reliability with 47 participants (85.1% women) who were mostly Caucasian (85.1%, 6.4% Hispanic or Latino(a), 4.3% African American, 2.1% Asian or Pacific Islander, 2.1% Other) from a Midwestern university. Results indicated high reliability for the DSI-SF and the four subscales (see Table 1). Specific item intercorrelations found were not disclosed. For the DSI first, second, and third phases; the DSI-R phase, and the first, second, and third DSI-SF phase; scale and subscale means and standard deviations are included in Table 2.

Table 2

DSI, DSI-R, and DSI-SF Scale and Subscale Means and Standard Deviations

Phase	<i>Ms and SDs</i>	Scale	Subscale	Subscale	Subscale	Subscale
2 nd DSI		DSI	ER	IP	EC	FO
	<i>M</i>	3.73	3.35	4.01	4.34	2.97
	<i>SD</i>	.58	.90	.83	.87	.88
3 rd DSI		DSI	ER	IP	EC	FO
	<i>M</i>	3.74	3.37	4.08	4.53	2.92
	<i>SD</i>	.60	.94	.85	.79	.85
DSI-R		DSI	ER	IP	EC	FO
	<i>M</i>	3.86	3.15	4.07	4.34	3.84
	<i>SD</i>	.72	1.06	.85	.93	.98
1 st DSI-SF		DSI	ER	IP	EC	FO
	<i>M</i>	4.12	3.64	4.15	4.73	4.31
	<i>SD</i>	.79	1.14	.84	1.19	.99
2 nd DSI-SF		DSI	ER	IP	EC	FO
	<i>M</i>	4.15	3.62	4.42	4.39	4.15
	<i>SD</i>	.77	1.04	.79	1.24	.95
3 rd DSI-SF		DSI	ER	IP	EC	FO
	<i>M</i>	3.74	3.37	4.08	4.53	2.92
	<i>SD</i>	.60	.94	.85	.79	.85

Note. 1st DSI Phase *Ms* and *SDs* were not provided. 2nd DSI Phase: ER = Emotional Reactivity, IP = I-Position, EC = Emotional Cutoff, and FO = Fusion with Others. 3rd DSI Phase: ER, IP, EC, and FO same as Second Phase (DSI, Skowron & Friedlander, 1998). DSI-R Phase: ER, IP, EC, and FO same as 2nd and 3rd DSI Phases; and FA = Fear of Abandonment, DM = Desire to Merge, SF = Spousal Fusion, and II = Intergenerational Individuation, IF = Intergenerational Fusion (Skowron & Schmitt, 2003); 1st DSI-SF Phase: ER = Emotional Reactivity, IP = I-Position, EC = Emotional Cutoff, and FO = Fusion with Others; 2nd and 3rd DSI-SF Phases: Same as 1st Phase (Drake et al., 2015).

Critiques of Differentiation of Self Instruments

Although instruments that assess differentiation of self, such as the LDSS, DSI, DSI-R, and DSI-SF have been established as valid and reliable, multiple researchers acknowledged that a recurring limitation of these instruments is the lack of gender, culture, ethnic or racial diversity in the sample populations used (Drake, 2011; Haber, 1990; Skowron & Friedlander, 1998; Skowron & Schmitt, 2003). For the LDSS, Haber (1990) stated that “a limitation of tool development has been the volunteer and relatively homogenous nature of the samples” (p. 328). She recommended future researchers to use probability sampling to increase diversity. Similarly, for the DSI, Skowron and Friedlander (1998) listed participant demographics as a limitation in all three phases of their research. They noted that, overall, participants were mostly “average, middle-aged, White, educated, employed individuals who were married and had children” (p. 243). Specifically, the percentage of White participants in each phase included 82.7%, 90.4%, and 90.5%; respectively. They further suggested that results of differentiation of self with specific dimensions of the DSI, such as IP, may derive different results in a collectivist cultural context as seen in Asian cultures that value autonomy less than in an individualistic cultural context as seen in Western cultures. They recommended further research of differentiation of self in different cultural contexts.

Although, all versions of the DSI are arguably the most widely used and validated instruments that assessed individuals' differentiation of self (Drake et al., 2015), the same cultural validity issue exists in the DSI-R since it was normed on a majority White sample, including 86.6% (Skowron & Schmitt, 2003). Drake (2011) developed the 20-item DSI-SF based on the DSI-R, as a shorter version for efficient use in a college setting, which was valid and reliable (Drake, 2011; Drake et al., 2015). Similar to previously developed instruments, the majority of the participants in the three-phase DSI-SF development were White/Euro/Caucasian-Americans (71.2%, 67.7%, 85.1%; respectively, Drake, 2011; Drake et al., 2015). Maser (2011) tested the construct validity of the DSI-R, with 112 (i.e., 50 White, 15 African American, 6 Asian, 9 Hispanic, 32 missing data) clinical (54) and nonclinical (58) samples recruited from an outpatient behavioral facility. Their differentiation scores were compared with their anxiety, social adjustment, psychological symptoms, and personal authority in relationships, which indicated significantly higher scores on the ER, EC, and IP subscales in the nonclinical sample ($M, SD = 3.82, .73; 4.09, .73; 3.97, .80$; respectively) than the clinical ($M, SD = 3.20, .92; 3.35, .59; 3.32, .78$; respectively). IP increased in the non-clinical sample in comparison to the clinical sample. Other researchers cross validated the DSI-R with anxiety assessments and found the DSI-R to be valid and reliable (Drake, 2011; Jankowski & Hooper, 2012). Jankowski and Hooper (2012) conducted a confirmatory factor analysis of the DSI-R with 749 (530 White American, 160 Black American, 30 mixed race, 5 Native American, 6 other) adult students from a southern U.S. state university as well as parentification and mental health symptom inventories resulted in a three-factor model (ER, EC, IP) rather than the DSI-R's four-factor model (including FO). Cronbach's alpha for 31 items indicated .88 for ER, .82 for EC, .75 for IP, and .89 for the DSI-R.

Several authors indicated that existing instruments used to assess individuals' differentiation of self are biased towards people from individualistic cultural contexts, stemming from an individualistic bias in Bowen's family systems theory and since a majority of normed participants were White Euro-Americans (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O'Hara & Meteyard, 2011). Although the DSI-R was validated by multiple researchers (Jankowski & Hooper, 2012; Maser, 2011), cultural validity problems remain when assessing differentiation in multiple cultural contexts. Researchers noted weakened construct validity of the DSI-R due to cultural biases represented in the items (O'Hara & Meteyard, 2011). O'Hara and Meteyard suggested that subscales and items on differentiation of self instruments should reflect various cultural values and should not be limited to the individualistic context.

Differentiation of Self and Diversity

Historically, Bowen's theory has faced various critiques from both a feminist and multicultural perspective (Bitter, 2014). Knudson-Martin (1994) pointed out the male bias in Bowen's theory and argued that Bowen had a patriarchal preference for the intellectual system over the feeling system. She reconceptualized his theory by equalizing the feeling system with the intellectual systems; however, she did not pursue research on her reconceptualization of Bowen's theory.

While, research was conducted on differentiation of self with male participants (Biadisy-Ashkar & Peleg, 2013; Naimi & Niaraki, 2013), research was also conducted with a focus on females. Research with females was conducted by Biadisy-Ashkar and Peleg (2013) in a cross-cultural approach with 154 Arab and 114 Jewish women in which ER and IP were significantly higher in Arab ($M, SD = 4.00, .89; 4.09, .73$; respectively) versus Jewish women ($M, SD = 3.51, .68; 3.89, .73$; respectively). They also found that in both groups of females, satisfaction with life

significantly and positively correlated with IP ($r = .29, .33$; respectively) and negatively correlated with EC ($r = -.32, -.50$; respectively). Whereas, among Arab women only ER and FO were significant and negatively correlated with satisfaction with life ($r = -.19, -.17$; respectively). In research with females by Naimi and Niaraki (2013), they found that 40 female students (20 in control, 20 in experimental group) from Saveh who participated in a differentiation training program with 10 sessions, no significant effect was found with the training and their differentiation of self and self-efficacy ($\eta^2 = .023, .059$; respectively) as well as a minimal significant effect was found with their test anxiety ($\eta^2 = .391$).

Bowen's Individualistic Bias

Similar to a male bias, previous authors remarked that Bowen's inherent individualistic cultural influence in his theory was unacknowledged since Bowen argued that his theory was grounded in science and transcended culture (Bourne, 2011; Crossno, 2011; Popovic, 2019). According to O'Hara and Meteyard (2011), the construct of differentiation as measured by the DSI and DSI-R is skewed toward individualistic concepts, such as EC or taking an IP, while excluding concepts like tolerating interpersonal difference and resisting societal expectations as seen in collectivistic cultures. Thus, the influence of Bowen's American individualistic cultural orientation in developing his family systems theory is evident through his emphasis on the individual (O'Hara & Meteyard, 2011). Although, Bowen did acknowledge that people are influenced by culture and have the potential to influence cultural discourse (Bourne, 2011), Bowen viewed the family of origin, as opposed to the extended family, as the most important place to begin working on differentiation of self (Bowen & Kerr, 1988), which is a common characteristic of individualistic societies. Thus, individualistic cultural realities form the basis of Bowen's original definition of differentiation, even if he used scientific analysis of human

behavior to transcend the differences in cultural experiences at the emotional level (Bourne, 2011).

By extension, Bowen acknowledged that cultural values are different for people in different contexts; an idea that has since been supported by other authors (M. Kerr, personal communication, October 30, 2019; Skowron et al., 2014). Kerr (personal communication, October 30, 2019) reinforced the idea that differentiation of self could look different depending on a cultural context due to differing value systems, yet the premise of differentiation, remains the same. He stated, “I think it is safe to assume that every culture has its more mature and less mature members. The values that different cultures have are lived differently by the more mature members than the less mature ones” and that mature people are “more flexible due to a careful thinking process applied in managing oneself within their social context” and less mature people are “more likely to adhere to whatever the values are dogmatically or with unthinking acceptance and allegiance.” Yet, controversy still exists as to the universality of Bowen’s theory (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O’Hara & Meteyard, 2011; Skowron et al., 2014). Tuason and Friedlander (2000) argued that although Bowen described his theory as universal, cultural understanding and meaning need to be assessed in specific cultural contexts.

Research was conducted on differentiation of self with participants from other countries and cultural context besides the U.S. In research by Lampis (2016), with 468 Italian adults (259 women, 209 men) who were university psychology students, their differentiation of self predicted their relationship adjustment. Significant yet small negative correlations were found between adjustment and both ER ($r = -.147$) and EC ($r = -.206$), a significant yet small positive correlation was found between adjustment and IP ($r = .174$), and no significant correlation was found with adjustment and FO ($r = .013$). In addition, a linear regression indicated that all four

dimensions of the DSI-R scale significantly predicted couple adjustment and ER and EC decreased adjustment; whereas IP and FO increased. One year later, in Lampis et al.'s (2017b) research with 160 Italian women and 158 Italian men who were university psychology students, their differentiation of self was related to their increased couple adjustment (ER, IP, EC; $r = -.181, .203, -.467$; respectively) and decreased codependency (ER, IP, EC, FO; $r = .460, -.301, .442, .330$; respectively), which indicated that their differentiation positively correlated with couple adjustment and negatively correlated with codependency.

In a Philippine culture context, Tuason and Friedlander (2000) conducted research that included 306 adult Filipinos who identified as mothers, fathers, and children of faculty, staff, graduate students, and their parents from a private Philippine university. Using the DSI and health inventories, they found that differentiation of self predicted symptomology and trait anxiety, which they attributed to culture since IP is stressful, and that couples had co-varied differentiation levels. However, they also found that parents' differentiation of self levels did not predict that of their children's differentiation. They compared their findings with the Filipino data to Skowron and Friedlander's (1998) data with a U.S. sample and found that the Filipino population had significantly lower ER, higher EC and IP, and similar but not significant differentiation ($M, SD = 3.62, .96; 4.18, .74; 4.31, .75; 3.78, .53$; respectively) compared to the U.S. population ($M, SD = 3.37, .94; 4.53, .79; 4.08, .85; 3.74, .60$; respectively).

With 117 Israeli (25 male, 92 female) undergraduate psychology students recruited from an Israeli university, Peleg-Popko (2002) utilized a multiple regression analysis and found that differentiation of self negatively correlated with social anxiety ($R^2 = .43, \beta = -3.91$) and physiological symptoms ($R^2 = .12, \beta = -.97$). Similarly, Sohrabi et al., (2013) used the DSI-R and health inventories with Iranian's from a counseling center in Tabriz and found a significant

positive correlation between differentiation of self and general (physical and psychological) health ($r = .64$, $R^2 = .342$). In Spain, Rodriguez-Gonzalez et al., (2015) translated and back translated before administering the DSI-R to 1,047 adults. They found that only two subscales were valid and reliable including ER and EC, that resulted in the 26-item Spanish DSI-R (S-DSI). In the same year, Isik and Bulduk (2015) translated and back translated, then revised the 46-item DSI-R to the 20-item Turkish DSI-R that was found valid and reliable for Turkish people. They conducted two phases of research, the first involved administering the 46-item Turkish DSI-R to 221 Turkish adults, and the second involved administering the revised 20-item Turkish DSI-R to 187 Turkish adults. Similarly, with in an Italian culture context, Lampis et al. (2017a) created the Italian DSI-R (IT-DSI-R) and found it to be valid and reliable among the Italian population. However, an issue existed with the FO subscale, similar to the original DSI, that the researchers thought may be due to cultural factors. They argued that although the Italian culture is viewed as individualistic, connectedness is not seen as lack of differentiation of self nor is it viewed as fusion.

When comparing 802 Korean and European–American students’ differentiation levels, Chung and Gale (2006) found that Korean students’ differentiation scores were lower than the Euro-American students. Korean students had increased scores on the ER, EC, and FO subscales, as well as decreased IP and the total DSI-R score (M , $SD = 2.74$, $.64$; 3.81 , $.59$; 2.78 , $.54$; 3.62 , $.57$; 3.21 , $.43$; respectively) compared to American students (M , $SD = 3.49$, $.86$; 4.75 , $.82$; 3.27 , $.62$; 4.10 , $.68$; 3.86 , $.51$; respectively). Similarly, Kim et al. (2015) administered the DSI-R to 277 participants, including South Koreans, South Korea-born citizens in the U.S., and White Americans and found that White Americans’ differentiation scores were higher (M , $SD = 175.15$, 29.97) than the South Koreans (M , $SD = 161.01$, 26.40) and South Korea-born citizens in the

U.S. ($M, SD = 166.30, 28.95$). Alaedain (2008) found that with 351 American and Jordanian college students, Americans' differentiation scores ($M, SD = 163.76, 40.25$) were higher than Jordanian's scores ($M, SD = 142.38, 36.08$). Similarly, Ross and Murdock (2014) found that with 296 (i.e., 72.3% White/Caucasian or European American, 10.8% Black or African American, 6% Asian or Asian American, 4% Hispanic or Latino/a, 4% Multiracial, 1.4% Native American/American Indian, .7% Pacific Islander, .7% Other) U.S. born university students, independent (i.e., a more individualistic context, $r = .41$) and interdependent self-construal (i.e., a more collectivistic context, $r = -.22$) correlated with differentiation of self. Although Skowron (2004) found that differentiation of self in an ethnic minority sample ($M, SD = 3.74, .65$) yielded similar results to a European American sample ($M, SD = 3.64, .52$), and authors have supported the universalism of Bowen's family systems theory by administering the DSI-R (Peleg & Rahal, 2012; Skowron, 2004), other researchers noted that individuals from collectivistic ($M, SD = 3.67, .56$) cultural orientations scored lower on the DSI-R than their individualistic ($M, SD = 3.92, .68$) counterparts (Chung & Gale, 2009). Further, O'Hara and Meteyard (2011) found that with 113 adults in Australia (i.e., 84 Australians, 29 Koreans and Malaysians) using a principle components analysis and the DSI-R, initial support for a collectivistic component of differentiation existed, including items that represented "tolerating interpersonal differences" and "societal expectations" (p. 1.32).

Gushue and Constantine (2003) utilized both the DSI and the INDCOL Scale with 123 African American college women from a midwestern state university enrolled in psychology. They found a significant and positive correlation between horizontal individualism and IP ($\eta^2 = .14$), a significant negative correlation between vertical individualism and ER ($\eta^2 = -.03$), and a significant and negative correlation between horizontal collectivism and both ER and FO

respectively ($\eta^2 = -.03, .04$). Also, Gushue and Constantine found that an increase in HI was related to an increase in IP, and that an increase in HC was related to a decrease in ER and FO. With 121 (64 women, 57 men) Israeli adults from a Northern Israel city, Peleg (2008) found that Israeli adults' EC significantly and negatively correlated with duration of marriage ($r = -.33$) and positively correlated with marital satisfaction ($r = .54$). In later research, with a sample of Israeli students (173 female, 44 male), Peleg (2014) found their overall stressful life events in childhood negatively correlated ($r = -.09$) with their IP and positively correlated with their intergenerational triangulation in adulthood and their EC ($r = .38, .31$). Also, a regression analysis indicated stressful life events were significantly correlated with EC, FO, and intergenerational triangulation ($\beta = .29, .24, -.50$; respectively), and positive life events significantly correlated with ER, EC, and intergenerational triangulation ($\beta = -.24, -.22, -.27$; respectively). With 120 students from psychology programs in Brasov, Romania; Vancea (2013) found that overall anxiety and depression significantly and negatively correlated ($r = -.743, -.606$; respectively) and self-satisfaction and emotional intelligence significantly and positively correlated ($r = .570, .285$; respectively) with differentiation of self. Further, Peleg et al. (2015) found that with 88 Israeli adolescents (41 male, 47 female) and their parents, no significant relationship existed between adolescent and parent social anxiety, which contradicted Bowen's theoretical notion that parents' anxiety directly impacts that of their children.

Types of Cultural Contexts

In societies, a culture is the shared values and practices that are learned from previous generations, enforced by present members of a culture group, and passed on to succeeding generations. Globally, various cultural contexts of people are grouped into three types: (a) individualistic (Hofstede, 2011; Singelis et al., 1995; Triandis, 1995, 2001); (b) collectivistic

(Hofstede, 2011; Singelis et al., 1995; Triandis, 1995, 2001); and (c) transcultural (Falicov, 2008; Mand, 2010; McGoldrick et al., 2005b; McGoldrick & Hardy, 2008b; Richter & Nollert, 2014). An individualistic culture context is defined as individuals whose viewpoints are independent of others and who act based on their personal preferences, needs, rights, and goals over those of others, in addition to basing their relationships on “rational analyses of the advantages and disadvantages of associating with others” (Triandis, 1995, p. 2). In contrast, a collectivistic culture context involves individuals who view themselves as part of a larger group or groups of people who prioritize norms, duties, and goals of the group rather than those of their own (Triandis, 1995). Whereas, a transcultural context is an integration of both collectivistic and individualistic value systems that is defined as “a perspective through which to address attachments across various cultures” (Richter & Nollert, 2014, p. 461).

Individualism and collectivism are viewed as polythetic in nature rather than dichotomous (Triandis, 1995). Individualistic cultures are about belonging, agency, responsibility, and worldview that involve independence and self-sufficiency, individual privacy and choice, and a preference for task-completion over nurturing relationships. Whereas, collectivistic cultures are about belonging, agency, responsibility, and a worldview that primarily involves interdependence within community, loyalty, and a preference for nurturing relationships over task-completion (Hofstede, 2011). Multiple facets of both individualism and collectivism can co-exist at the same time (Triandis, 1995; Triandis & Gelfand, 1998). However, distinctions exist among beliefs about self, goals, interactions, and attitudes that determine behaviors within a primarily individualistic versus collectivistic culture context (Triandis & Gelfand, 1998). In collectivistic cultures, allocentric behaviors are valued more than idiocentric behaviors, whereas, in individualistic cultures, idiocentric behaviors are valued more (Triandis, 1995).

Also, individualists may reject aspects of their dominant culture and adopt more collectivistic values and attitudes (Triandis, 1995). Cultural shifts can occur over time where a dominant narrative of a specific individualistic or collectivistic culture switches to represent the opposite culture, such as through conquest of land and natural resources (McGoldrick & Hardy, 2008b). Whereas, transnationalism is part of transculturalism and it highlights issues of “migration and the boundedness of social spaces, [by revealing] the cultural boundedness of other concepts such as multiculturalism or assimilation...unlike multiculturalism and acculturation, transculturalism refers to the symmetric merging of elements from different cultures” (Richter & Nollert, 2014, p. 461). In comparison, a collectivistic culture values community-reliance and consultation (Crozier & Davies, 2006; Lee & Mock, 2005), and places a greater value on societal expectations and relatedness than autonomy (Alaedein, 2008; Almeida, 2005; Chung & Gale, 2006, 2009; Kim et al., 2015; O’Hara & Meteyard, 2011).

Collectivistic cultures largely endorse a family structure based on the extended family, contrary to a focus on the nuclear family that is evident in communal child-rearing practices (Mand, 2010). Expectations that adult children will move out of the family home does not occur, and parents typically remain at home in old age, instead of in assisted living (Crozier & Davies, 2006; Lee & Mock, 2005). In a collectivistic culture, priority is focused on the collective over the individual, which may influence an individual’s actions based on thinking (i.e. differentiating). Whereas, in an overarching transcultural phenomenon, many individuals simultaneously adopt both collectivistic and individualistic values and belief systems through a process of transcultural identity development (Almeida, 2005; Falicov, 2008; Mand, 2010; Richter & Nollert, 2014). For example, Falicov (2008) described the experiences of transnational populations living in the U.S. as having both objective and subjective connections with their

ancestors' geographic locations. For example, Mand (2010) found that immigrant children in an individualistic culture perceived their ancestral place of origin (i.e., collectivistic) as their own place of origin, even with minimal or no physical visitation, in conjunction with their place of birth and current residence. Thus, the process of identity development as seen in transnational populations in a globalized world is rooted in the transcultural context and can be distinguished from individuals who primarily remain in individualistic or collectivistic cultures.

Both collectivistic and individualistic cultures often shift and interchange with immigrant or transnational families, which adds complexity to changing and evolving cultural norms (Falicov, 2008; McGoldrick & Hardy, 2008b; Richter & Nollert, 2014). Transcultural context has a non-dualistic framework that does not account for individualistic and collectivistic cultures (Falicov, 2008; Richter & Nollert, 2014). However, interdependence, as opposed to independence, is often more appreciated by culturally collectivistic immigrant adults in western countries in contrast to their foreign-born children who grew up in the adopted individualistic country surrounded by independent cultural values (Almeida, 2005). The result of transcultural movements extends beyond familiarity or connections towards belonging and transnational identity development (Mand, 2010). Transcultural people are “transmigrants or transnationals” who maintain “multiple relations (i.e., familial, economic, social, religious) that span geographic, cultural, and political borders” (Falicov, 2008, p. 26). Also, they are immigrants who link their new geographic location with that of their country of origin that sometimes results in a lack of stability or firm roots in one location, time, and place. However, some migrants are able to “root themselves in two different contexts almost simultaneously” (de Rooij & Echchaibi, 2015, p. 1,616). The differences in immigrant experience and rootedness leads to the reality that “transnational populations are not homogenous” (p. 1,616).

Research on Individualism, Collectivism, and Transculturalism

Based on 198 research studies that included 31 countries (i.e., Australia, Austria, Belgium, Canada, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Iran, Italy, The Netherlands, New Zealand, Norway, Pakistan, Portugal, Republic of Korea, Romania, Singapore, Spain, Taiwan, Tanzania, Uganda, U.K., U.S.), Fischer et al. (2019) found significant effects of cultural norms on cultural practice with a meta-regression analysis; 52,888 participants had greater social norm-intentions than 45,967 participants' social norm-behaviors in countries that are less individualistic ($R = .49, .49$; respectively), had less developed/lower income ($R = .45, .30$; respectively), were tighter or restrictive in emotional display ($R = .44, .22$; respectively), and utilized more flexible or situation dependent decision-making rather than collective structural decision-making ($R = .48, .26$; respectively).

Within cultural groups of 71 (i.e., 32 Dutch and 19 Moluccan origins, 20 Chinese exchange) students recruited from a Dutch university, Chinese participants showed significant and/or higher negative emotions with non-close others including acquaintance, colleague, fellow student, supervisor, teacher, and stranger ($M = 2.24$ irritated, 2.99 frustrated, 2.09 ashamed) than their Dutch ($M = 2.34$ irritated, ashamed 1.94) and Moluccan (no significant results) counterparts (Huwaë & Schaafsma, 2018). Among close others, only Moluccan students displayed significant results for guilt ($M = 2.09$). Whereas, Chinese students displayed significant results for sharing positive emotions with close members of their group including family, partner, romantic friend and good friend ($M = 7.67$ accepted, 7.42 respected, 5.77 proud, 7.15 satisfied), Dutch students showed significant but lower results ($M = 7.45$ accepted, 7.36 respected), and Moluccan students ($M = 8.05$ accepted, 8.00 respected) showed significant and higher results for feelings of

acceptance and respect. Also, within their cultural groups, suppression of negative emotions was significant with Dutch students ($M = 3.58$) and suppression of positive emotions was significant and lower in Dutch students compared to Chinese students ($M = 3.91$).

Carpenter (2000) found that using data from the Human Relations Area Files or HRAF CD-ROM and microfiche with 16 cultures (i.e., Lozi, Yanoama, Kurds, Aymara, Taiwan Hokkien, Sherpa, Senoi, Central Thailand, Saami, Highland Scots, Somali, Hausa, Inuit, Iroquois, Aranda, Lau Fijians), tightness, self-concept, and failure attributions positively correlated with collectivistic cultures ($r = .44, .70, .46$; respectively). Carpenter concluded that collectivistic cultures tend to attribute cause to a larger external collective society, rather than an internal locus of control, and that failure is usually not attributed to that collective although success is. Hui and Triandis (1986) found that with 46 (i.e., residents of 49% North America, 14% Latin America, 10% Europe, 21% Asia, 6% Australia) psychologists and anthropologists (i.e., 94%, 6%; respectively), between group differences of perceived behavior towards target groups including spouse, mother, sibling, relative, friend, co-worker, neighbor, acquaintance, stranger, and foreigner significantly differed among perceived individualism ($M = 4.83, 7.01, 7.92, 9.62, 6.86, 7.46, 8.71, 7.60, 5.20, 3.07$; respectively) and collectivism ($M = 8.70, 8.36, 7.30, 7.66, 4.82, 6.20, 4.77$; respectively). Therefore, individualistic and collectivistic cultures have distinct cultural constructs. The greatest differences were behaviors towards spouse versus mother, relative versus mother, neighbor versus spouse, relative versus stranger, mother versus sibling, and relative versus spouse ($t = 11.45, 11.24, 10.83, 10.68, 10.29, 10.24, 14.90$; respectively).

Further, Hattrup et al. (2007) found that with 2,460 (i.e., 215 Ecuador, 246 Germany, 437 India, 191 Mexico, 793 U.S.) students from 33 universities in their respective countries, mean

differences of students' scores existed between the five countries, including higher means for work group collectivism in more collectivistic countries such as India, Ecuador, and Mexico ($M, SD = 5.33, .87; 5.39, .77; 5.40, .86$; respectively) than more individualistic countries such as the U.S. and Germany ($M, SD = 4.85, .83; 4.76, .85$; respectively). They also found that work centrality or involvement was highest for India ($M, SD = 5.37, 1.07$) and lowest for the U.S. and Germany ($M, SD = 3.36, 1.17; 3.09, 1.03$; respectively), and that Mexico and Ecuador were in between ($M, SD = 3.98, 1.40; 3.75, 1.38$; respectively). Lastly, Hatrup et al. found that pride in work was highest for Mexico ($M, SD = 6.27, .81$) and lowest for Germany ($M, SD = 5.41, .81$), whereas the other countries ranged in between ($M, SD = 6.08, .82$ Ecuador; $6.03, .80$ U.S.; $5.95, .91$ India).

Hofstede et al. (2010) conducted cross-cultural research related to culture norms in 76 countries in which western countries and more economically developed countries, primarily adopted an individualistic culture, whereas a collectivistic culture was predominantly practiced in less developed and eastern countries. Triandis (1995) continued with Hofstede's earlier work by establishing the concepts of vertical versus horizontal collectivism and individualism. Later, Singelis et al. (1995) tested Triandis' concepts in the development of the 32-item Individualism-Collectivism (INDCOL) scale. They argued that previous measures did not provide aggregate reliability when assessing individualism and collectivism due to the broadness in the constructs with low fidelity (i.e., accuracy/consistency of obtained answers) and specific factors with previous measures across different cultures because they were developed based on an individualistic framework.

With 213 adult students, (i.e., 96 = Illinois university, 117 = Hawaii university) that included diverse ethnic backgrounds (i.e., 87 East Asian, 59 West European, 46 North European,

45 Pacific Islander, 20 East European, 19 South Asian, 17 Native American, 15 South European, 12 West Asian, 7 Hispanic, 6 North Asian, 3 North African, 3 Africa south of the Sahara), a principle components and confirmatory factor analysis of the INDCOL Scale resulted in four dimensions: (a) vertical collectivism (VC, i.e., inequality in societal structure is accepted); (b) horizontal collectivism (HC, i.e., equality and interdependence in societal structure is desired); (c) vertical individualism (VI, i.e., preferred independence and acceptance of inequality); and (d) horizontal individualism (HI, i.e., preferred independence and equality desired). Reliabilities for each dimension were $\alpha = .64, .74, .74, .67$; respectively (Singelis et al., 1995). Triandis and Gelfand (1998), stated that vertical collectivism (i.e., inequalities within the collective are accepted and interdependence and sacrifice or service are emphasized) and vertical individualism (i.e., inclination for autonomy, acceptance of inequality, competition, and independence) involve beliefs surrounding acceptance of hierarchical structures in society, whereas horizontal individualism (i.e., autonomous individual, equality, and independence) and horizontal collectivism (perceiving the self as collective, seeing all members of the collective as the same, and interdependence and equality are emphasized) involve beliefs that emphasize societal equality (Singelis et al., 1995).

Komarraju and Cokley (2008) tested the INDCOL Scale to assess the ethnic differences between 96 African American and 149 European American college students. Mean differences indicated that European American students scored higher in VC, HI, and HC ($M, SD = 42.01, 12.39; 58.07, 7.81; 55.04, 8.49$; respectively) compared to African American students ($M, SD = 37.88, 12.46; 61.80, 8.41; 52.47, 8.467$; respectively). Following the development of the INDCOL Scale, Triandis and Gelfand (1998) developed a revised version, INDCOL-R Scale, by reducing the items from 32 to 27. They found that a factor analysis indicated 16 items, four in

each original dimension loaded above .40 (i.e., .40 to .68), and that each dimension indicated high reliability ($\alpha = .80$ HC, .73 VC, .81 HI, .82 VI). They further found that dimension means when compared to the constructs of competition, emotional distance from in-groups, family integrity, hedonism, interdependence, self-reliance, and sociability, based on a scale of 1 (strongly disagree) to 9 (strongly agree), ranged from low ($M = 3.3$; VC with emotional distance from in-groups) to high ($M = 7.0$; VI with both competition and hedonism, respectively).

Cozma (2011) conducted a meta-analysis of the INDCOL and INDCOL-R Scales and found that both instruments built on previous research by Hofstede (2011) that operationalized individualism and collectivism. Similarly, Györkös et al. (2013) found that the INDCOL-R Scale was valid and reliable across cultures in Switzerland ($\alpha = .75$ Individualism, .73 Collectivism, .72 VC, .76 HC, .80 VI, .64 HI) and South Africa ($\alpha = .78$ Individualism, .84 Collectivism, .83 VC, .77 HC, .75 VI, .78 HI). They also found that the means for the four dimensions (i.e., four items for each dimension) and the individualism and collectivism item means differed from the Swiss sample (i.e., $M, SD = 45.5, 9.49, I; 18.36, 7.03, VI; 27.14, 4.69, HI; 55.97, 7.20, C; 27.97, 4.83, VC; 28.01, 4.32, HC$) compared to the South African sample (i.e., $M, SD = 48.53, 10.37, I; 21.74, 6.51, VI; 26.78, 6.08, HI; 57.15, 9.87, C; 29.16, 5.88, VC; 27.99, 5.43, HC$).

Counseling Perspective on Culture Groups

Grimmett and Locke (2009) pointed out that the challenge in describing an ethnic group as homogenous is the inherent overlooking of individual differences within groups and that cultural nuances are missed when taking a universal approach. Specifically, in the counseling profession, various authors have described differences between several cultures based on shared knowledge and understanding of lived experiences. For example, Grimmett and Locke (2009) described African American values as including strong extended family relationships, changing

familial roles, work ethic and educational ambition, as well as spiritual and religious practice. Whereas, in Asian cultures, Singh (2009) stated that collective and family-centered practice is preferred over individual identity. However, Asian American families can experience tension due to a pull between pursuing individual aspirations and familial connectedness and may be torn between being obedient to elders versus taking an individualistic perspective that is reflected in the dominant individualistic culture in the U.S. Similar to Asian cultures, Spanish-speaking populations such as Hispanic cultures ascribe to the “existential paradigm” of collectivism and that the primary way of being is directly related to connection in a group or community (Smith & Montilla, 2009, p. 175). Their emphasis is on belonging and interdependency where social norms are set by the collective and protection of social relationships at the expense of personal achievement. Among immigrant populations, such as Hispanics, immigration-related separations contribute significantly to psychological distress among families in the U.S. (Mitrani et al., 2004).

Similarly, in the Native American culture, Turner and Pope (2009) described traditional families as being focused on the extended family unit rather than the nuclear, as seen in European American families, including child-rearing and elderly care practices. Native Americans place the benefit of the tribe over that of the individual and that practicing good acts yields good rewards, whereas bad actions yield bad consequences. The primary way of relating to others is through shared values, power, and benefit. In contrast, Turner and Pope described European Americans as believing in “the good of the individual as a means to promote the good of the group” and that they emphasize “acquiring” rather than “sharing, with status gained through individual wealth and surplus” (p. 200). Individual struggles within particular cultural groups may differ significantly and appear unique.

Culture and Differentiation of Self

Historically, authors have emphasized the significance of integrating a culture and social justice perspective into counselor education (Toporek, 2009; Sue & Sue, 2013). Since then the counseling code of ethics has been updated to include competencies in various cultures for counselors, counselor educators, supervisors, and researchers (ACA, 2014). Culture competencies require counselors to have the ability to recognize ethnic, racial, and geographical backgrounds that form individual privilege and lack thereof (McGoldrick & Hardy, 2008b). The unconscious culture processes that can occur with people involve rules and structures in different spheres of life that are related to race, class, gender or other differences in people and the environment. The need for understanding various cultures stems from the globalization that has occurred at an accelerated growth rate in various cultures and individual experiences that accompany new and varied challenges for counselors. For example, in the U.S., a White, heterosexual, cisgender, upper class, male, or able-bodied individual represents a privileged identity, whereas an African American, gay, transgender, low socioeconomic status, female or someone with a disability represents a marginalized identity (McGoldrick, Giordano, & Garcia-Preto, 2005b; McGoldrick & Hardy, 2008b).

Specific competencies related to multicultural and social justice counseling practice are presented in Ratts et al.'s (2015) Multicultural and Social Justice Counseling Competencies (MSJCC) that include acquiring skills to: (a) "identify limitations and strengths when working with privileged and marginalized clients," (b) "determine how the worldviews, values, beliefs and biases held by privileged and marginalized counselors and clients influence the counseling relationship," and (c) understand "how culture, stereotypes, prejudice, discrimination, power,

privilege, and oppression influence the counseling relationship with privileged and marginalized clients” (pp. 8-10).

In specific counseling theories, such as Bowen’s family systems theory, little consensus has been reached as to whether his theory or constructs included in his theory are universal or equally applicable to all cultures, such as when assessing differentiation of self. Skowron et al. (2014) stated, “controversy exists as to whether ... differentiation of self is relevant for persons of color from non-Western cultures that hold differing worldviews” (p. 364). However, Murdock (2009) stated that when conceptualizing Bowen’s theory in totality, such as with Asian collectivistic cultures, his theory can be applied due to the multigenerational emotional process that occurs with people. Although, empirical research by Tuason and Friedlander (2000) with a Filipino sample indicated support for the universality of Bowen’s assumption that differentiation predicts decreased psychological distress and trait anxiety, cultural explanations for the resulting differences between the Filipino and U.S. samples (i.e., Filipinos displayed significantly lower ER, higher EC and IP, and similar but not significant differentiation) indicated that “Filipinos reported being less emotionally entangled in the family despite having close ties with family members, ... family and societal traditions and [the] unwritten rules of belonging [that] construct a person’s way of life” and that “if these traditions are adhered to strictly, reactive distancing or emotional cutoff may be the norm” (p. 34). In agreement, Skowron et al. (2014) stated that research did “lend some support to the notion that Bowen’s concept of differentiation may have universal aspects; however, future research is needed to better understand relations between culture, worldview, differentiation of self, and mental health” and “how differentiation of self manifests is likely dependent on the cultural context within which a relationship system is embodied, although underlying patterns may be similar across cultures” (p. 365).

Development of a Multicultural Instrument for Differentiation of Self

When developing an instrument to assess a construct such as differentiation of self within various cultures, utilizing a multicultural research, theory, and practice approach (Tran et al., 2017) is inherently *subjective* and a challenge because of the “shared beliefs, attitudes, norms, roles, and values found among speakers of a particular language who live during the same historical period in a specified geographic region” that are usually transmitted through multiple generations (Triandis, 1995, p. 6). Thus, assumptions about socio-cultural norms that are unacknowledged or unexamined within a specific culture context and across different culture contexts can influence the development and use of an instrument to assess multicultural contexts (Triandis, 1995).

Often incorrect assessment methods and instruments are used to assess individuals’ beliefs and behaviors in cross-cultural research (Nikapota, 2009). In general, instruments do not measure the same construct(s) in exactly the same way across cultures, and issues with structural and measurement equivalence has been previously noted (Byrne & van de Vijver, 2010). More specifically, theory or instrument development within a Western cultural context have been deemed universal in the past when norming and validating an instrument, with an assumption that validity exists regardless of societal differences or cultural variations (Triandis, 1995). For example, researchers have questioned the universalism associated with Bowen’s family systems theory, as well as the instruments developed to assess differentiation of self in various cultures, and pointed out validity issues of those instruments (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O’Hara & Meteyard, 2011).

Multicultural Assessment Standards

Professional standards for counselors in multicultural assessment are provided by various authors and professional organizations for development of assessment instruments and use of instruments for a client's cultural background, test-taking environment, comfort level, language translation, as well as an existing instrument's norms, test bias, and validity (Cofresi & Gorman, 2004). Validity should be assessed to the degree to which the construct being measured is measured using construct, content, criterion, concurrent, and predictive validity. Also, reliability of an instrument should be established through reliability assessment using inter-rater, test-retest and internal consistency. Multicultural and social justice-oriented standards are important guidelines for conducting multicultural assessment research to ensure that valid, reliable, fair and equitable practice is represented for varying cultural and minority populations (AARC, 2003, 2012; Tran et al., 2017). Based on professional assessment standards, researchers should continuously revisit overall assessment and methodological procedures for culture in all phases (i.e., development, selection, administration, interpretation, and application) of multicultural assessment research (AARC, 2003, 2012; Tran et al., 2017).

Development of Multicultural Assessment Instruments. Specific to multicultural instrument development, procedures in domain quality checks, reliability and validity, and representation of participants' cultural identities are exceptionally important (AARC, 2003, 2012). Researchers should focus on "empirical and operational definitions of [cultural] groups" based on cross-cultural research rather than labeling terms using non-cognitive literature as a disguise akin to solving a problem (Sedlacek & Kim, 1995, p. 1). Further, counselors should follow standards and accepted procedures for instrument development to ensure that "technical quality of the content domains [are] evaluated" (AARC, 2012, p. 3). In order to increase

reliability and validity of multicultural instruments, researchers also should consider cultural factors early in the development process and increase opportunities to consult with experts in both culture and assessment research areas through content validation (Tran et. al., 2017; Sedlacek & Kim, 1995).

Further, Tran et al. (2017) recommended that developing a new multicultural instrument should involve an extensive review of the cross-cultural literature, an expert panel that includes panel members who are experts on culture, and a culturally diverse sample population. Also, in quantitative research, cross-cultural instrument development should include the collection of data and assessment of cross-cultural validity and reliability. In establishing domains or factors using EFA, researchers must consider the quality of the correlations found and be honest about the strength or weakness of the intercorrelations as well as any unexpected factors that result (Abell et al., 2009). Additionally, researchers should make careful decisions about analyzing data using software with default settings that may not be the best fit for specific research, and that since EFA is a linear model, researchers should not present assumptions about nonlinear relationships between latent factors and observed variables (Abell et al., 2009). A common problem in instrument development is when researchers ignore cultural assumptions that inherently influence methodological decisions (Sedlacek & Kim, 1995). Thus, multicultural awareness should be monitored to actively reduce cultural bias (AARC, 2003, 2012; ACA, 2014; Ratts et al., 2015). Based on multicultural standards and assessments for instrument development, a theoretical reconceptualization of Bowen's theory using a cultural framework is important in assessing differentiation of self (Erdem & Safi, 2018).

Use of Multicultural Assessments. In 2003, the Association for Assessment in Counseling (AAC), now known as the Association for Assessment and Research in Counseling

(AARC), provided 68 standards for selecting, administering, scoring, interpreting, and applying assessment instruments. In 2012, AARC's standards were revised to "enhance counseling professionals' knowledge of as well as the public's awareness and support for culturally-appropriate assessment" specifically related to "individual and system interventions useful for client/student and community empowerment, advocacy, collaboration, to change systems, and inform public opinion and policy" (p. 2). Later in 2014, ACA's *Code of Ethics* included guidelines for counselors' use of assessment instruments and tests with clients. Previously, Sedlacek and Kim (1995) and more recently Balkin and Juhnke (2018) described common problems in multicultural assessment and recommendations for improving research practice.

Recommendations for counselors in selecting assessment tools include avoid choosing instruments that were not normed on the test-takers cultural group, for example instruments normed on White populations to assess non-White populations, but rather select instruments that are suitable for multicultural populations to avoid inaccurate testing (AARC, 2003, 2012; ACA, 2014; Sedlacek & Kim, 1995; Tran, et al., 2017). In addition, when using tests, counselors should check the "validity, reliability, psychometric limitations, and appropriateness of instruments" (AARC, 2003, p. 5).

When administering instruments, counselors should understand cultural group norms and preferences on types of assessment, and more importantly acknowledge how assessment is perceived in different cultural groups (AARC, 2012; Balkin & Juhnke, 2018; Tran, et al., 2017). In addition, counselors should treat test-takers equitably during the entire assessment process (AARC, 2003, 2012) and recognize that culture sensitivity in the impersonal or distant nature of data collection between the counselor and the test-taker should be considered (Balkin & Juhnke,

2018). Counselors should also reduce reliability and validity threats stemming from language differences (AARC, 2003, 2012).

When scoring and interpreting assessment results counselors should be aware of the impact of cultural identity, for example ethnic group, race, age, and present results in the appropriate context (AARC, 2003, 2012; ACA, 2014; Tran et al., 2017). Finally, counselors are recommended to indicate to test-takers “any reservations that exist regarding validity or reliability because of the circumstances of the assessment or the inappropriateness of the norms for the person tested” (AARC, 2003, p. 9).

Summary

Chapter II included a description of the historical development of Bowen’s family systems theory with a focus on the core concept of differentiation of self. Also, extensive conceptual and empirical research on differentiation as it relates to individuals and families, diversity, and culture, as well as critiques of existing instruments used to assess differentiation were provided. Based on extensive literature and research on multicultural standards for the development and use of an assessment instrument, the need for the development of a multicultural assessment instrument to assess differentiation was established.

Chapter III

Research Design

The methodological design that was used in the present research is presented in the following sections: (a) research questions and hypotheses; (b) research design; (c) participants; (d) data collection methods, including the following instruments; Demographic Questionnaire, Triandis and Gelfand's (1998) Individualism-Collectivism Revised (INDCOL-R) Scale, and the Multicultural Differentiation of Self Inventory (MDSI); (e) research questions and data analysis; and (f) summary. The purpose of the present research is to develop and test the validity of the MDSI. The rationale is based on the identification of missing cultural contexts from Bowen's original construct of differentiation of self, and the lack of an existing instrument that assesses level of differentiation of self in individuals' primary cultural context.

Research Questions

The researcher addressed the following questions and hypotheses:

Research Question One

Will participants' demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S., residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) be diverse?

Hypothesis One

Participants' demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S.,

residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) will be diverse.

Research Question Two

Will factors be derived from participants' Multicultural Differentiation of Self (MDSI) scores using an exploratory factor analysis?

Hypothesis Two

Factors will be derived from participants' Multicultural Differentiation of Self scores using an exploratory factor analysis.

Research Question Three

Does internal consistency exist in the Multicultural Differentiation of Self Inventory's (MDSI's) factors?

Hypothesis Three

Internal consistency will exist for the Multicultural Differentiation of Self's factors.

Research Question Four

Is there a significant relationship between participants' Multicultural Differentiation of Self Inventory (MDSI) scores and their Individualism-Collectivism Revised (INDCOL-R) Scale scores?

Hypothesis Four

A significant relationship will exist between participants' Multicultural Differentiation of Self Inventory scores and their Individualism-Collectivism Revised scale scores.

Research Question Five

Is there a significant relationship between participants' Multicultural Differentiation of Self (MDSI) scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Hypothesis Five

There will be significant relationships between participants' Multicultural Differentiation of Self scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting).

Research Question Six

Does internal consistency exist in the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Hypothesis Six

Internal consistency will exist for the Multicultural Differentiation of Self's factors.

Research Question Seven

Is there a significant relationship between the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Hypothesis Seven

A significant relationship will exist between participants' INDCOL-R Scale and dimensions.

Research Question Eight

Is there a significant relationship between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Hypothesis Eight

There will be significant relationships between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting).

Research Design

In the present research, a quantitative non-experimental design was used that included the development and initial validation of the MDSI. A convenience sampling method was used that involved conducting research with accessible target populations (Field, 2013). Random sampling involves un-purposeful selection of participants in any given research project, while semi-random sampling involves an aspect of participant selection that is random while other aspects of the process are not (Field, 2013).

The first step in establishing validity for the MDSI included an expert panel review that included experts in culture, instrument development, and family systems theory specific to differentiation of self. Follow up to the expert panel validation, an EFA was used to reduce the variables into possible factors (Field, 2013).

The second validity step was to use an EFA, “a statistical technique that is used to reduce” a large number of variables into a few factors “to explore the underlying theoretical

structure of a phenomena” (Statistics Solutions, 2019). For the EFA, a R-type method of analysis was used to calculate the obtained factors between variables using a factor correlation matrix, versus between two participant scores as seen in a Q-type method (Statistics Solutions, 2019). A principle component analysis was used to determine the number of obtained factors by extracting the maximum variance into the first factor then extracting the maximum variance for the second factor until the last factor was obtained. An orthogonal varimax rotation was used to check whether clear associations and distinctions exist between any existing factors in the factor transformation matrix. Williams et al. (2010) and Hair et al. (2019) suggested that best practice for researchers is to utilize multiple factor extraction methods to increase validity in instrument development. Cattell’s scree plot, Kaiser’s criterion of eigenvalues at or above 1.0 was adjusted to 2.0, and Horn’s parallel analysis was used as additional factor extraction methods. Factor loadings of .40 or greater was used based on existing standards (i.e., .30 minimal, .40 more important, .50 practically significant; Statistics Solutions, 2019).

Since the MDSI was not a valid instrument, Triandis and Gelfand’s (1998) INDCOL-R Scale was not used for the purpose of convergent validity of the MDSI. Instead, further validity, reliability, and correlational tests were performed on the INDCOL-R to measure participants’ cultural dimensions (i.e., VI, VC, HI, HC). Pearson’s r was used to determine whether correlations existed between demographics and INDCOL-R Scale scores based on existing correlation standards (i.e., $r = 0$, no correlation; $\pm .00-.19$ very weak, $.20-.39$ weak, $.40-.59$ moderate, $.60-.79$ strong, $.80-1.0$ very strong) (Laerd Statistics, 2018). The alpha level of significance was set at .05, therefore a p value of .05 or lower was considered significant. Cronbach’s alpha reliability score of .70 or higher was considered good reliability, .80 or higher is better, and .90 or higher is best (Statistics Solutions, 2020).

The independent variables were participants' demographics (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) and the dependent variable was the participants' INDCOL-R Scale scores.

Participants

In order to access various cultures, the participant criteria included adults who were 22 years or older and enrolled in various graduate programs including arts and humanities, and sciences (i.e., social, natural, formal, and applied) at 33 universities in southeast U.S. (i.e., Augusta University, Coastal Carolina University, Dillard University, Emory University, Florida International University, Florida State University, Georgia State University, Jackson State University, Louisiana State University Health Sciences Center, Louisiana State University, Loyola University, Mercer University, Mississippi State University, Nicholls State University, Northwestern State University, Southeastern Louisiana University, Southern University at New Orleans, Troy University, University of Alabama, University of Central Florida, University of Georgia, University of Holy Cross, University of Miami, University of Mississippi, University of New Orleans, University of North Alabama, University of North Florida, University of North Georgia, University of South Carolina, University of Southern Mississippi, University of West Georgia, Valdosta State University, Xavier University). Although age 25 was used for participants' minimum age during the development of both the DSI (Skowron & Friedlander, 1998) and DSI-R (Skowron & Schmitt, 2003); the present researcher used the minimum age of 22 for participation based on Rubia's (2013) argument that increased stability occurs in an individual's brain development and cognitive maturity at 22, with less chaotic changes compared to ages 9 to 17. In addition, individuals in early adulthood have an increased sense of identity

and decision-making skills with decreased passive influence from the environment (Krause, 1995).

de Winter et al. (2009) have shown that a minimum of 50 participants can yield valid and reliable results with high factor loadings, a low number of factors, and a high number of factor variables, whereas Flora and Flake (2017) have indicated that a minimum number of participants must be in the hundreds for the use of EFA. Both Crunk (2017) and Mvududu and Sink (2013) used a sample size ratio of 10 participants to 1 item in an instrument as appropriate for conducting an EFA. Researchers generally indicated that the exact sample size must reflect the unique characteristics of what is being researched rather than an arbitrary absolute minimum across all research (Field, 2013; MacCullum et al., 1999; MacCullum et al., 2001). For the present research, based on the 36 items included in the MDSI, a 10 to 1 ratio was used for the sample size for a minimum of 360 participants.

Participation recruitment was made by the researcher to professors via email (see Appendix A), requesting to distribute an anonymous Qualtrics survey link that included the instruments. Also, an approval by UNO's Internal Review Board (IRB) for Protection of Human Subjects in Research was obtained. Obtaining IRB approval is an ethically and legally required step in conducting research with human participants (Stanford University Research Compliance Office, 2019). When required, the researcher obtained IRB from any of the 33 southeast U.S. universities included in the present research. An Informed Consent letter was distributed to participants indicating that completion of the questionnaires was considered participation consent (see Appendix B). As part of the informed consent, participants were made aware of their right to choose whether to participate in the present research and to withdraw at any point. Participants' rights to confidentiality, including anonymity, and their ability to answer questions freely on

their own were included in the informed consent. Also, since participants completed an online Qualtrics survey, they were advised to close their browser and delete temporary files upon completion.

Data Collection Methods

The three following instruments were included in the present research: (a) a Demographic Questionnaire, (b) the Individualism-Collectivism Revised (INDCOL-R) Scale, and (c) the Multicultural Differentiation of Self Inventory (MDSI).

Demographic Questionnaire

Using the Demographic Questionnaire, a total of 16 demographic variables were collected. Out of the 16 demographics variables the first five included: 1) university, 2) age, 3) gender (i.e., male, female, genderqueer, agender, transgender, cisgender, other), 4) socio-economic status (i.e., low, \$31,000 or less; lower-middle, \$31,000-\$42,000; middle, \$42,000-\$126,000; upper-middle, \$126,000-\$188,000; high, \$188,000 or more), and 5) relationship status (i.e., single, dating, non-married committed, polyamorous, separated, divorced, widowed, married, other) (see Appendix C). In addition and more central to the purpose of administering the MDSI and identifying participant cultural context, the following 11 demographic variables were requested: 6) race, (i.e., White, Black or African American, Hispanic or Latino, American-Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, other), 7) ethnicity (i.e., African, Arab, Australian, Canadian, East Asian, Eastern European, European, Euro-American, Latin American, Middle-Eastern, North African, North American, South American, South Asian, Scandinavian, other), 8) country of birth (e.g., U.S., China, India), 9) residence state in U.S. (if applicable), 10) residence country/countries (e.g., U.S. or U.S. and Mexico), 11) current geographic location due to Covid-19 pandemic, 12) country or countries of citizenship (e.g., U.S.

or U.S. and Canada), 13) language(s) spoken, 14) immigrant generation in the U.S. from another country (i.e., first, second, third, fourth, fifth or more), 15) cultural affiliation (i.e., collectivistic, individualistic, transcultural), and 16) current majority community cultural setting (i.e., collectivistic, individualistic, transcultural).

Individualism-Collectivism Revised (INDCOL-R) Scale

The INDCOL-R Scale (Triandis & Gelfand, 1998) was the second instrument used to collect data (see Appendix D). Permission to use the INDCOL-R Scale was obtained from Michele Gelfand (see Appendix E). Following the development of the INDCOL Scale (Singelis et al., 1995), Triandis and Gelfand (1998) developed a revised version (i.e., reduced items from 32 to 27), referred to as the INDCOL-R Scale, which was administered to a South Korean (i.e., phase one, 326 university students in South Korea) and U.S. sample (i.e., phase 2, 126 university students in Illinois). An exploratory factor analysis established the same four dimensions (i.e., horizontal collectivism = HC, horizontal individualism = HI, vertical collectivism = VC, vertical individualism = VI) found in the INDCOL Scale, however only 16 items, four items in each dimension, loaded above the cutoff of .40 reducing the total items from 27 to 16 (i.e., $\alpha = .80$ HC, .81 HI, .73 VC, .82 VI). Thus, the INDCOL-R Scale was found reliable and valid in both the American and South Korean cultural contexts when reduced to the following 16 items: (a) the HC items included, “If a co-worker gets a prize, I would feel proud,” “The well-being of my co-workers is important to me,” “To me, pleasure is spending time with others,” and “I feel good when I cooperate with others;” (b) the HI dimension included, “I’d rather depend on myself than on others,” “I rely on myself most of the time; I rarely rely on others,” “I often do my own thing,” and “My personal identity, independent of others, is very important to me,” (c) the VI items included, “It is important that I do my job better than others,” “Winning is everything,”

“Competition is the law of nature,” and “When another person does better than I do, I get tense and aroused,” and (d) the VC included, “Parents and children must stay together, as much as possible,” “It is my duty to take care of my family, even when I have to sacrifice what I want,” “Family members should stick together, no matter what sacrifices are required,” and “It is important to me that I respect decisions made by my groups” (p. 120).

With 1,403 master’s psychology students (i.e., 585 in Switzerland and 818 in South African), Györkös et al. (2013) tested the validity and reliability of the INDCOL-R Scale compared with another instrument that measures individualism and collectivism. Using a confirmatory factor analysis, across individualistic and collectivistic cultures in Switzerland (i.e., $\alpha = .75$ Individualism, $.73$ Collectivism, $.64$ HI, $.80$ VI, $.76$ HC, $.72$ VC) and South Africa (i.e., $\alpha = .78$ Individualism, $.84$ Collectivism, $.78$ HI, $.75$ VI, $.77$ HC, $.83$ VC), reliability of the INDCOL-R Scale was found. Also, construct validity was found when comparing the INDCOL-R Scale to another cross-cultural instrument with the “best goodness-of-fit-indices” (i.e., comparative fit index = $.90$ South Africa, $.86$ Switzerland for the INDCOL-R Scale; $.86$ South Africa, $.85$ Switzerland for the other instrument) and the “most consistent factor structure” (p. 18). Similarly, Ng and Dyne (2001) found the INDCOL-R Scale to be reliable across all four dimensions ($\alpha = .65$ HI, $.72$ VI, $.70$ HC, $.64$ VC). Further, Lalwani et al. (2006) found that in their second research phase, using a factor analysis with the INDCOL-R Scale’s 16 items, all items loaded in their respective dimension except “To me, pleasure is spending time with others,” which loaded on HC instead of HI. The reliability scores ranged from good to questionable ($\alpha = .70$ HI, $.72$ VI, $.55$ HC, $.67$ VC).

During the development of the INDCOL-R Scale, means for the four dimensions were based on an item scale of 1 (strongly disagree) to 9 (strongly agree) and when compared to the

constructs of competition, emotional distance from in-groups, family integrity, hedonism, interdependence, self-reliance, and sociability, the means ranged from low ($M = 3.3$; VC with emotional distance from in-groups) to high ($M = 7.0$; VI with both competition and hedonism, respectively). Additionally, Györkös et al. (2013) found that the four-item dimension means, based on a range of 4 (strongly disagree) to 36 (strongly agree) and both individualism and collectivism item means, based on a range of 8 (strongly disagree) to 72 (strongly agree), differed from the Swiss sample (i.e., $M, SD = 45.5, 9.49$, Individualism; $18.36, 7.03$, VI; $27.14, 4.69$, HI; $55.97, 7.20$, Collectivism; $27.97, 4.83$, VC; $28.01, 4.32$, HC) compared to the South African sample (i.e., $M, SD = 48.53, 10.37$, Individualism; $21.74, 6.51$, VI; $26.78, 6.08$, HI; $57.15, 9.87$, Collectivism; $29.16, 5.88$, VC; $27.99, 5.43$, HC).

Multicultural Differentiation of Self Inventory (MDSI)

For the MDSI, recommendations by Abell et al. (2009) and Tran et al. (2017) were used for cross-cultural instrument development. First, an extensive review of literature was completed conceptualizing the construct of differentiation of self in multiple cultural contexts. Next, 12 items were generated for the *individualistic* culture, with a focus on the individual and the value of independence; 12 items were developed for *collectivistic* culture, with a focus on relational values of interdependence; and 11 items were developed for transcultural culture, with a focus on a combination of individualistic and collectivistic cultures, resulting in a total of 35 items for the MDSI. Abell et al. (2009) recommended using reverse scored items in scale development to increase the likelihood that acquiescence or a lapse in attention will not significantly affect the results of data. The initial pool of MDSI items included 18 items out of the 35 items that were reversed scored, which were indicated with *R* for reversed scored. Of the 18 items, seven assess individualistic, six assess collectivistic, and five assess transcultural cultures (see Table 3).

Table 3*Initial MDSI Item Pool*

Culture	Item
I	<ol style="list-style-type: none"> 1. <i>R. I am upset for days when others say or do something to hurt me</i> 2. <i>R. I need others to make me feel like I belong</i> 3. <i>I am empowered to advocate for myself</i> 4. <i>R. I reject the advice of others</i> 5. <i>R. I worry about people invading my privacy</i> 6. <i>R. I ignore what others tell me to do</i> 7. <i>R. I cut off relationships when they no longer serve me</i> 8. <i>I understand that I may disappoint myself</i> 9. <i>I set boundaries with others when I believe they have acted inappropriately towards me</i> 10. <i>I respond to my triggers thoughtfully on my own rather than immediately reacting to them</i> 11. <i>R. I engage in conflict with others about issues that effect me</i> 12. <i>I make decisions based on my own thinking</i>
C	<ol style="list-style-type: none"> 1. <i>My community's thoughts and feelings are deeply important to me</i> 2. <i>I make decisions after talking with my community</i> 3. <i>R. I cut off relationships when they no longer serve my community</i> 4. <i>I am empowered to advocate for my community</i> 5. <i>R. I engage in conflict with others about issues that effect my community</i> 6. <i>I am able to set boundaries with others when I believe they have acted inappropriately towards my community</i> 7. <i>R. I am upset for days when others say or do something to hurt my community</i> 8. <i>R. I do what my community tells me to do</i> 9. <i>I understand that I may disappoint my community</i> 10. <i>R. I accept the advice of my community</i> 11. <i>R. I worry about my community being too distant from me</i> 12. <i>I respond to stressful situations by consulting with my community</i>
T	<ol style="list-style-type: none"> 1. <i>I am able to set boundaries with others when I believe they have acted inappropriately towards me and my community</i> 2. <i>I understand that I may disappoint myself and others</i> 3. <i>R. I cut off relationships when they no longer serve me and my community</i> 4. <i>I am accepting of multiple cultural influences on my identity</i> 5. <i>R. I engage in conflict with others about issues that effect myself and my community</i> 6. <i>R. I am anxious about being pulled between two different cultural expectations</i> 7. <i>I appreciate my own advice and the advice of others</i>

Culture	Item
T	8. I am <i>empowered to advocate for myself and my community</i>
	9. I <i>make decisions</i> based on both <i>my own thinking and consulting with others</i>
	10. <i>R. I worry about fitting into one particular culture</i>
	11. <i>R. I am upset for days</i> when others say or do something to hurt <i>me and my community</i>

Note. I = Individualistic, C = Collectivistic, T = Transcultural.

Expert Panel

According to Abell et al. (2009), 6 to 10 experts are needed for a content validation process that includes definitions of the constructs and whether the items fit the definitions. Specific to cultural validity, at least two experts should have experience in different cultures (Tran et al., 2017). For the present research, in September to December, 2019; 24 experts were emailed an Expert Panel Content Validation Form that included a letter (see Appendix F). Instructions were included for experts to indicate how they thought each item matched the definitions provided using the following scale: “1 = Fits” and “2 = Needs improvement” (see Appendix F). If 2 was selected, experts were asked to “describe suggested improvement for that item.” Additionally, experts were asked to answer *yes* or *no* to “did the italicized terms on the items help distinguish the following: differentiation of self, a lack of differentiation of self, and respective cultural contexts?” and to share any additional feedback. A second email was sent to experts who did not respond. By December, 2019, 8 out of the 24 experts shared feedback on the 35 items. The following were the eight experts’ specialization: a) one and three, Bowen’s theory and differentiation of self; b) expert two, instrument development; c) expert four, instrument development and differentiation of self; d) experts five, six, and seven, culture; e) expert eight, differentiation of self in cross-cultural research.

MDSI Changes Based on Expert Feedback

Revisions made to an instrument based on expert feedback is essential in the validation process (Abell et al., 2009; Tran et al., 2017). In the present research, using the expert feedback, 22 out of 35 items stayed the same based on five or more out of eight experts' agreement that an item fit with the definition of differentiation of self in a specific cultural context (i.e., 8 individualistic, 6 collectivistic, 8 transcultural). Based on the eight experts' suggestions for change and/or agreement that an item did not fit a definition (i.e., 4 individualistic, 6 collectivistic, 3 transcultural), 13 items were adjusted, one of which was expanded to two items (i.e., collectivistic item 1). Analysis of all the items are provided in three appendices for each of the cultures (see Appendices G, H, I). The changes resulted in 36 items; 12 individualistic, 13 collectivistic, and 11 transcultural, which were randomly placed on the MDSI (see Appendix J).

MDSI Scoring

For the 36-item MDSI, responses include seven options: (a) 1 = *not at all true of me*, (b) 2 = *not true of me*, (c) 3 = *not so true of me*, (d) 4 = *sometimes true/untrue of me*, (e) 5 = *somewhat true of me*, (f) 6 = *true of me*, and (g) 7 = *very true of me*. A participant's raw score of differentiation of self was a sum of scores (including reversed scores) in each of the three culture contexts. For the individualistic culture context, the differentiation score range is 12 to 84, for collectivistic the range is 13 to 91, and for transcultural context the re range is 11 to 77. For each of the three culture contexts, raw scores were converted to averages, which were then be based on a range from *low differentiation*, 1; *low to moderate differentiation*, 2-3; *moderate differentiation*, 4; *moderate to high differentiation*, 5-6; and *high differentiation*, 7. In an individualistic culture context, scores represented the ability to be *more of self in relationships* through thoughtful action and not emotional reaction, with values focused on the individual and

independence. In a collectivistic culture context, scores represent the ability to be *more of a member of one's relationships and community* through thoughtful action and not emotional reaction, with values focused on interdependence. Lastly, in a transcultural context, scores represent the ability to be *more of self in relationships and more of a member of one's relationships and community* through thoughtful action and not emotional reaction, with integrated values of independence and interdependence.

An example of an individualistic culture is a participant's raw score of 72, which would be a 7 for *moderate to high* differentiation in an individualistic ($72/12 = 6$) culture. In an individualistic culture, a participant with *moderate to high* differentiation is *more of self in their relationships*, through thoughtful action and not emotional reaction by valuing independence. An example of a collectivistic culture is a participant's raw score of 53, which would be a 4, a *moderate* differentiation in a collectivistic ($53/13 = 4$) culture. In a collectivistic culture, a participant with *moderate* differentiation is *more of self in their community*, through thoughtful action and not emotional reaction by valuing interdependence. Lastly, an example of a transcultural is a participant's raw score of 34, which would be a 3, a *low to moderate* differentiation of self in the transcultural ($34/11 = 3$) context. In a transcultural context, a participant with *low to moderate* differentiation is *more of self in their relationships and community*, through thoughtful action and not emotional reaction by valuing the integration of independence and interdependence.

Research Questions

The following research questions were addressed using the corresponding data analyses presented below:

Research Question One

Will participants' demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S., residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) be diverse?

Data Analysis

Frequency tables, means, and standard deviations in descriptive data were used to analyze diversity in participants' demographics.

Research Question Two

Will factors be derived from participants' Multicultural Differentiation of Self (MDSI) scores using an exploratory factor analysis?

Data Analysis

An exploratory factor analysis (EFA) was used in the analysis of the Multicultural Differentiation of Self Inventory using SPSS software. Similar to Skowron and Friedlander (1998) this researcher used principle components analysis as a factor extraction method to reduce the number of items into linear categories using a correlation matrix. Three indicators for EFA suitability as described by Hair et al. (2019) were used including, the overall measure of intercorrelations indicating intercorrelations above .3, Bartlett's test of sphericity being significant, and the KMO sampling adequacy above .5 (p.136).

The following factor interpretation methods were used including three processes; estimating the factor matrix after conducting a PCA without factor rotation, subsequently using a

factor rotation, and then conducting factor interpretation and, if needed due to removal of items, respecification (i.e., re-run of PCA for a final time to accumulate final outcome data; Hair et al., 2019). After using the orthogonal varimax factor rotation, the following criteria was used to extract factors; latent root criterion (Kaiser criterion of accepting components that have at least an eigenvalue of 1.00 was adjusted to 2.00), Cattell's scree test to determine how many factors should be analyzed for the relevant data based on clustered items, Horn's parallel analysis, subjective judgement, as well as factor loadings of .40 or greater that indicated at least minimal significance (Field, 2013; Hair et al., 2019) method was used.

Research Question Three

Does internal consistency exist in the Multicultural Differentiation of Self Inventory's (MDSI's) factors?

Data Analysis

Due to the lack of validity of the MDSI, Cronbach's alpha was not used to test the internal consistency reliability of the MDSI.

Research Question Four

Is there a significant relationship between participants' Multicultural Differentiation of Self Inventory (MDSI) scores and their Individualism-Collectivism Revised (INDCOL-R) Scale scores?

Data Analysis

The relationship between participants' Multicultural Differentiation of Self Inventory scores and their Individualism-Collectivism Revised scale scores were analyzed using Pearson r correlation.

Research Question Five

Is there a significant relationship between participants' Multicultural Differentiation of Self (MDSI) scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Data Analysis

Relationships between participants' Multicultural Differentiation of Self Inventory scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) were analyzed using Pearson r correlation.

Research Question Six

Does internal consistency exist in the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Data Analysis

Cronbach's alpha was used to test the internal consistency reliability between the INDCOL-R Scale and dimensions.

Research Question Seven

Is there a significant relationship between the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

Data Analysis

The relationship between participants' Individualism-Collectivism Revised scale and dimension scores were analyzed using Pearson r correlation.

Research Question Eight

Is there a significant relationship between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

Data Analysis

Relationships between participants' Individualism-Collectivism Revised scores and demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) were analyzed using Pearson r correlation.

Summary

Chapter III included a description of design and methodology that was used in the present research. Specifically, details related to an EFA procedure to establish the validity and reliability for Multicultural Differentiation of Self Inventory, including external and internal validity and reliability were described. Further, research questions, hypotheses, and data analyses of focus, as well as participant criteria and data collection methods were presented.

Chapter IV

Results

The purpose of the present research was to address the existing gap in the assessment of Bowen's construct of differentiation of self by developing and testing the validity and reliability of the Multicultural Differentiation of Self Inventory (MDSI). The purpose of a valid and reliable instrument would be to accurately assess individuals' level of differentiation of self in three cultural contexts (i.e., individualistic, collectivistic, transcultural). This chapter includes information regarding the data collection process and results of the present research.

Data Collection

Data collection took place between June 8th 2020 and July 24th 2020. Initial emails were sent out between June 8th to July 1st, and second emails between July 6th and July 15th. Throughout the data collection period, an anonymous survey link was monitored by the researcher using Qualtrics. Out of a total of 568 surveys collected, one survey was removed due to a university requiring additional IRB that the researcher did not obtain, and two surveys were removed due to participants' universities located in a state outside of the boundaries of the present research (i.e., outside of LA, MS, AL, GA, FL, and SC). Also, five surveys were removed because participants' age was below 22 (i.e., one 20 and four 21); the threshold for participation in the present research. Out of the 560 surveys, 403 were used in the results that included complete MDSI items.

Findings by Research Questions

Research questions one through eight are provided with the data analysis for each research question.

Research Question One

Will participants' demographics (i.e., university, age, gender, socio-economic status or SES, relationship status, race, ethnicity, country of birth, residence state in the United States or U.S., residence country/countries, current geographic location due to the Corona Virus Disease 19 (COVID-19) pandemic, country/countries of citizenship, language(s) spoken, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting) be diverse?

Demographic Questionnaire Descriptives

For the present research, data collection was with participants enrolled in graduate programs from 33 universities. Participants' demographics were diverse. Participants' universities were mostly located in Louisiana ($n = 149$, 37.00%) and Florida ($n = 113$, 28.00%). The remaining participants' universities were in Alabama ($n = 33$, 8.20%), 42 were in Georgia (10.40%), 60 in Mississippi (14.90%), and 6 in South Carolina (1.50%; see Table 4).

Table 4

University State (N = 403)

	<i>f</i>	<i>%</i>
Alabama	33	8.20
Florida	113	28.00
Georgia	42	10.40
Louisiana	149	37.00
Mississippi	60	14.90
South Carolina	6	1.50

Note. Individual "University" cases from demographic question 1 were collapsed to state location of universities.

Participants' age range was 22 to 75 years, with the average age towards the lower end of the range ($M = 33.69$, $SD = 11.20$). The majority of participants were female ($n = 289$, 71.70%), 95 were male (23.60%), 13 cisgender (3.20%), 3 genderqueer (.70%), 1 agender (.20%), 1 other (.20%), 0 transgender (.00%), and 1 did not respond (.20%; see Table 5).

Table 5

Age and Gender (N = 403)

	<i>M</i>	<i>SD</i>	<i>f</i>	<i>%</i>
Age	33.69	11.20		
Gender				
Male			95	23.60
Female			289	71.70
Genderqueer			3	.70
Agender			1	.20
Transgender			0	.00
Cisgender			13	3.20
Other			1	.20
No response			1	.20

SES for 152 (37.70%) participants was middle (\$42,000-\$126,000), low (\$31,000 or less) for 144 (35.70%), lower-middle (\$31,000-\$42,000) for 61 (15.00%), upper-middle (\$126,000-\$188,000) for 36 (8.80%), high (\$188,000) for 7 (1.70%), and 3 did not respond (.70%; see Table 6).

Table 6*SES (N = 403)*

	<i>f</i>	<i>%</i>
Low - \$31,000 or less	144	35.70
Lower-Middle - \$31,000-\$42,000	61	15.10
Middle - \$42,000-\$126,000	152	37.70
Upper-Middle - \$126,000-\$188,000	36	8.90
High - \$188,000 or more	7	1.70
No response	3	.70

For participant relationship status, 135 were married (33.50%), 104 were single (25.80%), 70 were non-married committed (17.40%), 62 dating (15.40%), 21 were divorced (5.20%), 4 were polyamorous (1.00%), 2 separated (.50%), 4 were other (1.00%), and one participant was widowed (.20%; see Table 7).

Table 7*Relationship Status (N = 403)*

	<i>f</i>	<i>%</i>
Single	104	25.80
Dating	62	15.40
Non-Married Committed	70	17.40
Polyamorous	4	1.00
Separated	2	.50
Divorced	21	5.20
Widowed	1	.20
Married	135	33.50
Other	4	1.00

For race, 214 participants were White (53.10%), 80 were Black (19.90%), 55 reported multiple races (13.60%), 29 were Asian (7.20%), 12 were Hispanic or Latino (3.00%), 11 reported other (2.70%), 1 was American-Indian or Alaska Native (.20%) and 1 was Native Hawaiian or Pacific Islander (.20%) (see Table 8).

Table 8

Race (N = 403)

	<i>f</i>	%
White	214	53.10
Black or African American	80	19.90
Hispanic or Latino	12	3.00
American-Indian or Alaska Native	1	.20
Asian	29	7.20
Native Hawaiian or Pacific Islander	1	.20
Multiple Races	55	13.60
Other	11	2.70

Note. Some race cases were collapsed into “Multiple Races” (i.e., 24 White and Hispanic or Latino; 5 White and Other; 1 Black or African American and Asian; 3 Asian and Other; 5 White and Asian; 9 White and American Indian or Alaska Native; 2 White and Black or African American; 1 Hispanic or Latino and Other; 1 Black or African American and American Indian or Alaska Native; 2 White, Hispanic and Latino, and Other; 1 Black or African American and Other; 1 White and Native Hawaiian or Pacific Islander).

Participants identified their ethnicity as North American ($n = 103$, 25.60%), 65 as Euro-American (16.10%), 62 as multiple ethnicities (15.40%), 39 as European (9.70%), 35 as African (8.70%), 27 as other (6.70%), 19 as Latin American (4.70%), 15 as South Asian (3.70%), and 13 as Eastern European (3.20%). Few participants identified as East Asian ($n = 7$, 1.70%), 3 as

Scandinavian (.70%), 3 as Middle-Eastern (.70%), 2 as North African (.50%), 2 as South American (.50%), 1 as Arab (.20%), 1 as Canadian (.20%), 0 as Australian (.00%), and 6 participants did not respond (1.50%; see Table 9).

Table 9

Ethnicity (N = 403)

	<i>f</i>	%
African	35	8.70
Arab	1	.20
Australian	0	.00
Canadian	1	.20
East Asian	7	1.70
Eastern European	13	3.20
European	39	9.70
Euro-American	65	16.10
Latin American	19	4.70
Middle-Eastern	3	.70
North African	2	.50
North American	103	25.60
South American	2	.50
South Asian	15	3.70
Scandinavian	3	.70
Multiple Ethnicities	62	15.40
Other	27	6.70
No response	6	1.50

Across the globe, the majority of participants reported their country of birth as the U.S. ($n = 330$, 81.90%), and a few participants reported the following countries; 1 as Albania (.20%), 3 as Argentina (.70%), 5 as Bangladesh (1.20%), 1 as China (.20%), 2 as Colombia (.50%), 1 as Cuba (.20%), 1 as Czech Republic (.20%), 1 as Dominican Republic (.20%), 1 as DRC Congo

(.20%), 4 as Egypt (1.00%), 1 as France (.20%), 3 as Germany (.50%), 1 as Honduras (.20%), 6 as India (1.50%), 1 as Indonesia (.20%), 2 as Iran (.50%), 2 as Ireland (.50%), 1 as Italy (.20%), 2 as Jamaica (.50%), 1 as Japan (.20%), 1 as Malawi (.20%), 1 as Malta (.20%), 5 as Mexico (1.20%), 1 as Moldova (.20%), 2 as Morocco (.50%), 2 as Nepal (.50%), 2 as Netherlands (.50%), 2 as Nicaragua (.50%), 1 as Nigeria (.20%), 1 as Pakistan (.20%), 1 as Peru (.20%), 1 as Puerto Rico (.20%), 1 as Russia (.20%), 2 as South Korea (.50%), 1 as Switzerland (.20%), 2 as Taiwan (.50%), 1 as Trinidad & Tobago (.20%), 3 as United Kingdom (U.K.; .70%), 1 as Venezuela (.20%), and 2 participants did not respond (.50%; see Table 10).

Table 10

Country of Birth (N = 403)

	<i>f</i>	<i>%</i>
Albania	1	.20
Argentina	3	.70
Bangladesh	5	1.20
China	1	.20
Colombia	2	.50
Cuba	1	.20
Czech Republic	1	.20
Dominican Republic	1	.20
DRC Congo	1	.20
Egypt	4	1.00
France	1	.20
Germany	3	.70
Honduras	1	.20
India	6	1.50
Indonesia	1	.20
Iran	2	.50

	<i>f</i>	%
Ireland	2	.50
Italy	1	.20
Jamaica	2	.50
Japan	1	.20
Malawi	1	.20
Malta	1	.20
Mexico	5	1.20
Moldova	1	.20
Morocco	2	.50
Nepal	2	.50
Netherlands	2	.50
Nicaragua	2	.50
Nigeria	1	.20
Pakistan	1	.20
Peru	1	.20
Puerto Rico	1	.20
Russia	1	.20
South Korea	2	.50
Switzerland	1	.20
Taiwan	2	.50
Trinidad & Tobago	1	.20
U.K.	3	.70
U.S.	330	81.90
Venezuela	1	.20
No response	2	.5

In the U.S., participants' state of residence was Louisiana for 138 (34.20%), Florida for 102 (25.30%), Georgia for 41 (10.20%), Mississippi for 38 (9.40%), Alabama for 20 (5.00%), Alaska for 1 (.20%), Arkansas was reported for 1 (.20%), Arizona for 1 (.20%), California for 1

(.20%), Hawaii for 1 (.20%), Iowa for 1 (.20%), Illinois for 1 (.20%), Kansas for 3 (.70%), Kentucky for 1 (.20%), Maryland for 5 (1.20%), Missouri for 2 (.50%), North Carolina for 1 (.20%), North Dakota for 1 (.20%), New Mexico for 1 (.20%), New York for 3 (.70%), Ohio for 1 (.20%), Rhode Island for 1 (.20%), South Carolina for 5 (1.20%), Tennessee for 4 (1.00%), Texas for 7 (1.70%), Virginia for 2 (.50%), Wisconsin for 1 (.20%), 9 did not respond (2.20%), and 10 reported Other/U.S. (i.e., non-resident, F1 Visa, multiple states; 2.50%; see Table 11).

Table 11

Residence State in U.S. (N = 403)

	<i>f</i>	<i>%</i>
Alaska	1	.20
Alabama	20	5.00
Arkansas	1	.20
Arizona	1	.20
California	1	.20
Florida	102	25.30
Georgia	41	10.20
Hawaii	1	.20
Iowa	1	.20
Illinois	1	.20
Kansas	3	.70
Kentucky	1	.20
Louisiana	138	34.20
Maryland	5	1.20
Missouri	2	.50
Mississippi	38	9.40
North Carolina	1	.20
North Dakota	1	.20
New Mexico	1	.20

	<i>f</i>	%
New York	3	.70
Ohio	1	.20
Rhode Island	1	.20
South Carolina	5	1.20
Tennessee	4	1.00
Texas	7	1.70
Virginia	2	.50
Wisconsin	1	.20
Other/U.S. (i.e., non-resident, F1 Visa, multiple states)	10	2.50
No response	9	2.20

The majority of participants reported their country of residence as the U.S. ($n = 379$, 94.00%) and for participants who reported the U.S. and one or more countries; 1 (.20%) as Egypt, 1 (.20%) as France, 1 (.20%) as Germany, 1 (.20%) as India, 1 (.20%) as Malta, and 1 (.20%) as Mexico. Also, 1 (.20%) participant reported as Argentina; 2 (.50%) as Bangladesh; 1 (.20%) as Canada; 1 (.20%) as Egypt; 2 (.50%) as Germany; 1 (.20%) as Ireland and Switzerland; 1 (.20%) as Malawi; 1 (.20%) as Netherlands; 1 reported other (i.e., N/A; .20%); and 7 did not respond (1.70%; see Table 12).

Table 12

Residence Country/Countries (N = 403)

	<i>f</i>	%
Argentina	1	.20
Bangladesh	2	.50
Canada	1	.20
Egypt	1	.20
Egypt, U.S.	1	.20
France, U.S.	1	.20

	<i>f</i>	%
Germany	2	.50
Germany, U.S.	1	.20
India, U.S.	1	.20
Ireland, Switzerland	1	.20
Malawi	1	.20
Malta, U.S.	1	.20
Mexico, U.S.	1	.20
Netherlands	1	.20
U.S.	379	94.00
Other (i.e., N/A)	1	.20
No response	7	1.70

Due to the COVID-19 pandemic, participants reported their current geographic location as Louisiana ($n = 128$, 31.80%), 96 as Florida (23.60%), 43 as U.S. in general (10.70%), 39 as Georgia (9.70%), 31 as Mississippi (7.70%), 16 as Alabama (4.00%), one as Alaska (.20%), 1 as Arkansas (.20%), 2 as California (.50%), 1 as Connecticut (.20%), 1 as Hawaii (.20%), 2 as Iowa (.25), 1 as Indiana (.20%), 1 as Kansas (.20%), 4 as Maryland (1.00%), 1 as Michigan (.20%), 2 as Missouri (.50%), 3 as North Carolina (.70%), 1 as North Dakota (.20%), 1 as New Jersey (.20%), 1 as New Mexico (.20%), 2 as New York (.50%), 1 as Ohio (.20%), 1 as Oregon (.20%), 1 as Pennsylvania (.20%), 1 as Rhode Island (.20%), 4 as South Carolina (1.00%), 3 as Tennessee (.70%), 3 as Texas (.70%), 1 as Utah (.20%), 2 as Virginia (.50%), 2 as Wisconsin (.50%), 1 as Germany (.20%), 1 as Mexico (.20%), 1 as Western Hemisphere (.20%), and 4 participants did not respond (1.00%; see Table 13).

Table 13*Current Geographic Location Due to COVID-19 Pandemic (N = 403)*

	<i>f</i>	%
States		
Alaska	1	.20
Alabama	16	4.0
Arkansas	1	.20
California	2	.50
Connecticut	1	.20
Florida	95	23.60
Georgia	39	9.70
Hawaii	1	.20
Iowa	2	.50
Indiana	1	.20
Kansas	1	.20
Louisiana	128	31.80
Maryland	4	1.00
Michigan	1	.20
Missouri	2	.50
Mississippi	31	7.70
North Carolina	3	.70
North Dakota	1	.20
New Jersey	1	.20
New Mexico	1	.20
New York	2	.50
Ohio	1	.20
Oregon	1	.20
Pennsylvania	1	.20
Rhode Island	1	.20
South Carolina	4	1.00

	<i>f</i>	%
Tennessee	3	.70
Texas	3	.70
Utah	1	.20
Virginia	2	.50
Wisconsin	2	.50
Germany	1	.20
Mexico	1	.20
Western Hemisphere	1	.20
U.S. (not including states listed above)	43	10.70
No response	4	1.00

Note. Individual “Current Geographic Location due to the COVID-19 pandemic” cases, including specific locations such as New Orleans, LA, were collapsed to states, e.g., “LA”.

For 344 (85.40%), participants’ country of citizenship was the U.S., and for participants who reported the U.S. and one or more countries included; 1 was (.20%) Argentina and Slovenia; 1 (.20%) was Argentina; 1 (.20%) was Bangladesh; 1 (.20%) was Canada; 1 (.20%) was Finland; 1 (.20%) was Germany and Iran; 1 (.20%) was Iran; 1 (.20%) was Italy; 1 (.20%) was Jordan; 1 (.20%) was Nicaragua; 1 (.20%) was Peru; and 1 (.20%) was Spain. Whereas, for participants’ who reported country of citizenship other than the U.S.; 3 (.70%) were Bangladesh; 1 (.20%) was China; 2 (.50%) were Colombia; 1 (.20%) was Czech Republic; 4 (1.00%) were Egypt; 1 (.20%) was France; 1 (.20%) was Germany; 5 (1.20%) were India; 1 (.20%) was Iran; 2 (.50%) were Ireland; 1 (.20%) was Italy; 1 (.20%) was Malawi; 1 (.20%) was Malta; 4 (1.00%) were Mexico; 1 (.20%) was Morocco; 2 (.50%) were Nepal; 2 (.50%) were Netherlands; 1 (.20%) was Romania; 1 (.20%) was South Korea; 1 (.20%) was Taiwan; 2 (.50%) were United Kingdom; 1 (.20%) was Venezuela; and 6 participants did not respond (1.50%; see Table 14).

Table 14*Country/Countries of Citizenship (N = 403)*

	<i>f</i>	%
Argentina, Slovenia, U.S.	1	.20
Argentina, U.S.	1	.20
Bangladesh	3	.70
Bangladesh, U.S.	1	.20
Canada, U.S.	1	.20
China	1	.20
Colombia	2	.50
Czech Republic	1	.20
Egypt	4	1.00
Finland, U.S.	1	.20
France	1	.20
Germany	1	.20
Germany, Iran, U.S.	1	.20
India	5	1.20
Iran	1	.20
Iran, U.S.	1	.20
Ireland	2	.50
Italy	1	.20
Italy, U.S.	1	.20
Jordan, U.S.	1	.20
Malawi	1	.20
Malta	1	.20
Mexico	4	1.00
Morocco	1	.20
Nepal	2	.50
Netherlands	2	.50
Nicaragua, U.S.	1	.20

	<i>f</i>	%
Peru, U.S.	1	.20
Romania	1	.20
Spain, U.S.	1	.20
South Korea	1	.20
Taiwan	1	.20
UK	2	.50
U.S.	344	85.40
Venezuela	1	.20
No response	6	1.50

For 251 (62.30%), participants' spoken languages was English, and for participants who reported English and one or more languages included; 56 (13.90%) were Spanish; 1 (.20%) was Albanian; 3 (.70%) were American Sign Language; 1 (.20%) was American Sign Language and Korean; 1 (.20%) was Arabic, Darija, French, and Spanish; 7 (1.70%) were Arabic and 1 (.20%) was Arabic and French; 1 (.20%) was Arabic, French, and Spanish; 5 (1.20%) were Bangla; 1 (.20%) was Bangla, French, and Hindi; 1 (.20%) was Chichewa; 1 (.20%) was Chinese; 1 (.20%) was Czech; 1 (.20%) was Dezfuli, Farsi, German, and Spanish; 1 (.20%) was Dutch, French, and Spanish; 1 (.20%) was Dutch and Limburgish; 1 (.20%) was Dutch, Papiamentu, and Spanish; 1 (.20%) was Farsi and Spanish; 9 (2.20%) were French; 1 (.20%) was French and German; 1 (.20%) was French, German, and Italian; 1 (.20%) was French, German, and Spanish; 1 (.20%) was French, Italian, Japanese, and Spanish; 2 (.50%) were French, Italian, and Spanish; 1 (.20%) was French and Korean; 1 (.20%) was French and Mandarin; 1 (.20%) was French, Portuguese, and Spanish; 4 (1.00%) were French and Spanish; 1 (.20%) was French and Thai; 2 (.50%) were German; 1 (.20%) was German, Portuguese, and Spanish; 1 (.20%) was German and Spanish; 1 (.20%) was Hindi, Malayalam, and Tamil; 1 (.20%) was Hindi and Marathi; 2 (.50%) were Hindi

and Telugu; 1 (.20%) was Indonesian; 1 (.20%) was Irish, and German; 1 (.20%) was Italian and Maltese; 1 (.20%) was Italian, Moldovan, Romanian, Russian, and Spanish; 1 (.20%) was Italian, Punjabi, and Spanish; 2 (.50%) were Italian and Spanish; 2 (.50%) were Japanese; 1 (.20%) was Japanese, Portuguese, and Spanish; 1 (.20%) was Japanese and Spanish; 1 (.20%) was Mandarin; 1 (.20%) was Persian; 1 (.20%) was Polish; 1 (.20%) was Portuguese; 2 (.50%) were Portuguese and Spanish; 1 (.20%) was Punjabi, Spanish, and Urdu; 2 (.50%) were Russian; 1 (.20%) was Serbo-Croatian; 1 (.20%) was Tamil; 2 (.50%) were Urdu; and 1 (.20%) was Vietnamese. In addition, a few participants' spoken languages included single or multiple languages that were not English, although the survey was completed in English; 1 (.20%) was French, German, Lingala, Spanish, and Tshiluba; 1 (.20%) was Chinese; 1 (.20%) was Nepali, 6 reported other (i.e., 1, 1, 1, 2, 4, 5; 1.50%), and 3 did not respond (.70%; see Table 15).

Table 15

Language(s) Spoken (N = 403)

	<i>f</i>	<i>%</i>
Albanian, English	1	.20
American Sign Language, English	3	.70
American Sign Language, English, Korean	1	.20
Arabic, Darija, English, French, Spanish	1	.20
Arabic, English	7	1.70
Arabic, English, French	1	.20
Arabic, English, French, Spanish	1	.20
Bangla, English	5	1.20
Bangla, English, French, Hindi	1	.20
Chichewa, English	1	.20
Chinese	1	.20
Chinese, English	1	.20

	<i>f</i>	%
Czech, English	1	.20
Dezfuli, English, Farsi, German, Spanish	1	.20
Dutch, English, French, Spanish	1	.20
Dutch, English, Limburgish	1	.20
Dutch, English, Papiamentu, Spanish	1	.20
English	251	62.30
English, Farsi, Spanish	1	.20
English, French	9	2.20
English, French, German	1	.20
English, French, German, Italian	1	.20
English, French, German, Spanish	1	.20
English, French, Italian, Japanese, Spanish	1	.20
English, French, Italian, Spanish	2	.50
English, French, Korean	1	.20
English, French, Mandarin	1	.20
English, French, Portuguese, Spanish	1	.20
English, French, Spanish	4	1.00
English, French, Thai	1	.20
English, German	2	.50
English, German, Portuguese, Spanish	1	.20
English, German, Spanish	1	.20
English, Hindi, Malayalam, Tamil	1	.20
English, Hindi, Marathi	1	.20
English, Hindi, Telugu	2	.50
English, Indonesian	1	.20
English, Irish, German	1	.20
English, Italian, Maltese	1	.20
English, Italian, Moldovan, Romanian, Russian, Spanish	1	.20
English, Italian, Punjabi, Spanish	1	.20
English, Italian, Spanish	2	.50

	<i>f</i>	%
English, Japanese	2	.50
English, Japanese, Portuguese, Spanish	1	.20
English, Japanese, Spanish	1	.20
English, Mandarin	1	.20
English, Persian	1	.20
English, Polish	1	.20
English, Portuguese	1	.20
English, Portuguese, Spanish	2	.50
English, Punjabi, Spanish, Urdu	1	.20
English, Russian	2	.50
English, Serbo-Croatian	1	.20
English, Spanish	56	13.90
English, Tamil	1	.20
English, Urdu	2	.50
English, Vietnamese	1	.20
French, German, Lingala, Spanish, Tshiluba	1	.20
Nepali	1	.20
Other (i.e., 1, 1, 1, 2, 4, 5)	6	1.50
No Response	3	.70

For participants' immigrant generation in the U.S. from another country, 166 (41.20%) were fifth or more generation (i.e., your great-great-grandparents or their great-grandparents immigrated), 63 (15.60%) were first (i.e., you immigrated), 63 (15.60%) were fourth (i.e., your great-grandparents immigrated), 43 (10.70%) were second (i.e., your parents immigrated), 28 (6.90%) were third (i.e., your grandparents immigrated), and 40 did not respond (9.90%; see Table 16).

Table 16*Immigrant Generation in the U.S. (N = 403)*

	<i>f</i>	%
First (you)	63	15.60
Second (parents)	43	10.70
Third (grandparents)	28	6.90
Fourth (great-grandparents)	63	15.60
Fifth or more (great-great-grandparents or their great-grandparents)	166	41.20
No response	40	9.90

Participants' cultural affiliation was collectivistic for 124 (30.80%), individualistic for 126 (31.30%), transcultural for 148 (36.70%), and 5 did not respond (1.20%; see Table 17).

Table 17*Cultural Affiliation (N = 403)*

	<i>f</i>	%
Collectivistic	124	30.80
Individualistic	126	31.30
Transcultural	148	36.70
No response	5	1.20

Participants' current majority community cultural setting was collectivistic for 226 (56.10%), individualistic for 116 (28.80%), transcultural for 59 (14.60%), and 2 did not respond (.50%; see Table 18).

Table 18*Current Majority Community Cultural Setting (N = 403)*

	<i>f</i>	%
Collectivistic	226	56.10
Individualistic	116	28.80
Transcultural	59	14.60
No response	2	.50

Research Question Two

Will factors be derived from participants' Multicultural Differentiation of Self (MDSI) scores using an exploratory factor analysis?

Exploratory Factor Analysis (EFA) using Principle Components Analysis (PCA)

For the principle components analysis (PCA) an eigenvalue cutoff value of 2.00 and an orthogonal varimax rotation using data from all participants ($N = 403$) resulted in four components that accounted for 41.32% of the total variance (see Table 19). Bartlett's Test of Sphericity was significant (i.e., Chi-square = 6179.10, $df = 630$, $p = < .001$) and KMO sampling adequacy was above .50 (.77).

Table 19*Exploratory Factor Analysis (N = 403)*

	Initial Eigenvalues			Extraction Sums of Square			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.71	15.86	15.86	5.71	15.86	15.86	4.45	12.37	12.37
2	4.08	11.34	27.20	4.08	11.34	27.20	3.94	10.94	23.30
3	2.73	7.57	34.77	2.73	7.57	34.77	3.66	10.17	33.47
4	2.36	6.56	41.32	2.36	6.56	41.32	2.83	7.86	41.32
5	1.91	5.30	46.63						
6	1.77	4.92	51.54						
7	1.51	4.19	55.73						
8	1.39	3.85	59.58						
9	1.10	3.06	62.63						
10	1.02	2.83	65.46						
11	1.00	2.78	68.25						
12	.90	2.50	70.74						
13	.88	2.44	73.19						
14	.82	2.27	75.46						
15	.74	2.05	77.51						
16	.71	1.99	79.49						
17	.69	1.91	81.40						
18	.63	1.74	83.14						
19	.61	1.68	84.82						
20	.55	1.51	86.33						
21	.51	1.42	87.75						
22	.48	1.32	89.07						
23	.43	1.20	90.27						
24	.39	1.09	91.36						
25	.38	1.06	92.42						
26	.37	1.02	93.44						
27	.34	.94	94.38						
28	.32	.88	95.26						
29	.27	.75	96.01						
30	.26	.73	96.74						
31	.25	.70	97.43						

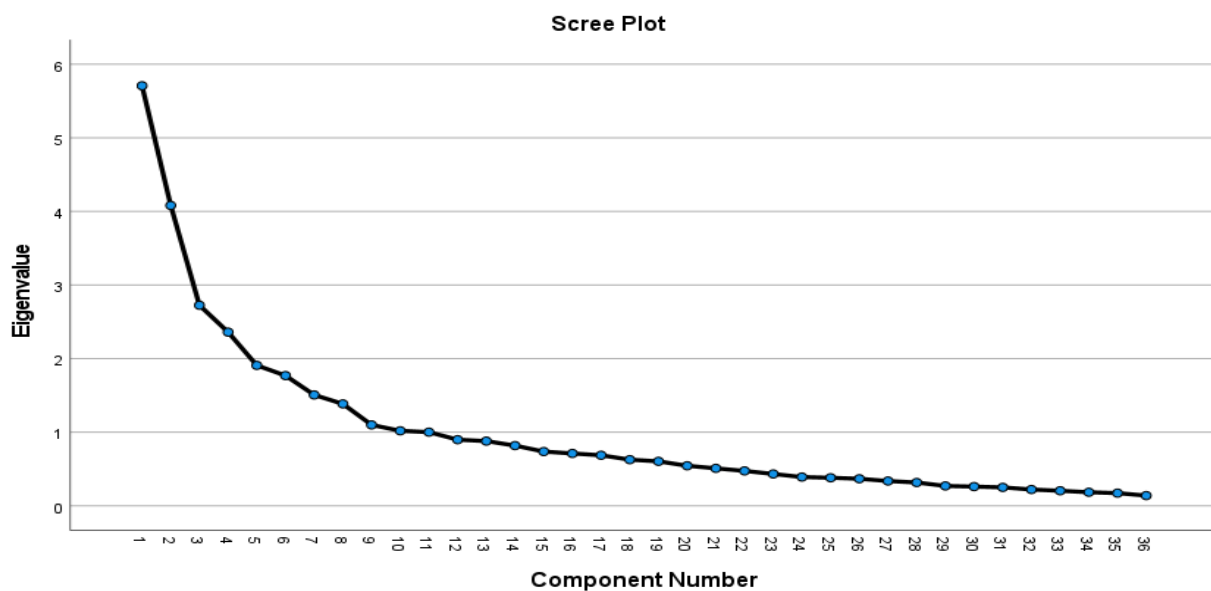
	Initial Eigenvalues			Extraction Sums of Square			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
32	.22	.62	98.05						
33	.21	.57	98.62						
34	.19	.51	99.13						
35	.17	.48	99.61						
36	.14	.39	100.00						

Note. Principal Components Analysis, Eigen 2; Varimax with Kaiser Normalization, 36 Items.

Further, item communalities were 1. The scree test indicated a drop after eight components (see Figure 2) that was consistent with the results of the parallel analysis, evidenced by larger eigenvalues for the first eight components than the parallel analysis means (i.e., parallel analysis $M = 1.62, 1.54, 1.48, 1.44, 1.39, 1.35, 1.31, 1.28$; eigenvalues = 5.71, 4.08, 2.73, 2.36, 1.91, 1.77, 1.51, 1.39; respectively; see Table 20). In addition, the component transformation matrix indicated intercorrelations that ranged from .03 to .84 (see Table 21).

Figure 2

Scree Plot (N = 403)



Note. 36 items.

Table 20*Parallel Analysis (N = 403)*

Item	PCA Eigenvalue	Parallel Analysis Mean
1	5.71	1.62
2	4.08	1.54
3	2.73	1.48
4	2.36	1.44
5	1.91	1.39
6	1.77	1.35
7	1.51	1.31
8	1.39	1.28
9	1.10	1.24
10	1.02	1.21
11	1.00	1.18
12	.90	1.15
13	.88	1.12
14	.82	1.09
15	.74	1.07
16	.71	1.04
17	.69	1.01
18	.63	.98
19	.61	.96
20	.55	.94
21	.51	.91
22	.48	.89
23	.43	.86
24	.39	.84
25	.38	.81
26	.37	.79
27	.34	.77

Item	PCA Eigenvalue	Parallel Analysis Mean
28	.32	.74
29	.27	.72
30	.26	.69
31	.25	.67
32	.22	.64
33	.21	.62
34	.19	.59
35	.17	.56
36	.14	.52

Note. PCA eigenvalues taken from “Total Variance Explained” table, 36 items.

Table 21

Component Transformation Matrix (N = 403)

	Component			
	1	2	3	4
1	-.72	.61	-.06	.33
2	-.38	-.38	.84	.03
3	.58	.43	.44	.54
4	.09	.54	.31	-.78

Note. Principal Components Analysis; Rotation Method: Varimax with Kaiser Normalization.

Finally, the rotated component matrix indicated that no clear and distinct components were found. Results indicated that 10 items loaded .40 or above on component 1, including three individualistic (I), four collectivistic (C), and three transcultural (T) (i.e., 23-T, .68; 19-C, .63; 14-T, .62; 15-I, .62; 34-I, .61; 22-C, -.59; 26-T, -.59; 16-C, -.57; 11-C, .53; 29-I, -.50; respectively). Eight items loaded .40 or above on component 2, including six collectivistic, one transcultural, and one individualistic (i.e., 2-C, .73; 8-C, .71; 5-C, .69; 9-C, .68; 30-C, -.56; 35-C,

-.49; 31-T, .43; 27-I; respectively). Eight items loaded .40 or above on component 3, including three individualistic, one collectivistic, and four transcultural items (i.e., 1-I, .78; 25-C, .57; 4-I, .56; 36-T, .55; 7-I, .55; 10-T, .53; 3-T, .49; 20-T, .455; respectively). Five items loaded .40 or above on component 4, including one individualistic item, one collectivistic, and three transcultural (i.e., 24-I, .86; 6-T, .79; 33-C, .71; 12-T, .41; 17-T, .401; respectively). Lastly, five items did not load on any of the four components (i.e., 28-C, 18-I, 13-I, 32-I, 21-I; see Table 22).

Table 22

Rotated Component Matrix (N = 403)

Item	Component			
	1	2	3	4
23	.68	.03	.14	.04
19	.63	-.20	.07	-.23
14	.62	-.12	.07	-.32
15	.62	.15	.14	.20
34	.61	-.00	-.05	-.33
22	-.59	.41	.23	.05
26	-.59	.34	.34	.06
16	-.57	.16	.41	.10
11	.53	-.23	.14	.05
29	-.50	-.04	.46	.02
2	-.16	.73	-.11	.04
8	-.06	.71	-.08	.16
5	-.20	.69	-.11	.11
9	-.09	.68	-.12	.14
30	.01	-.56	.09	.07
35	.08	-.49	.20	.26
31	-.09	.43	.06	.24
27	-.25	-.40	.22	.00

Item	Component			
	1	2	3	4
28	.18	-.35	.33	-.07
1	.08	-.05	.58	.02
25	.27	-.24	.57	-.04
4	-.05	-.18	.56	-.10
36	.30	-.25	.55	.03
7	-.44	.07	.55	.05
10	-.07	-.21	.53	-.05
3	-.35	.05	.49	.01
20	.03	-.14	.46	-.11
18	.33	.31	.35	.21
13	.30	.30	.34	.20
32	-.07	-.02	.30	.14
21	.09	.15	.20	-.13
24	.03	-.01	-.06	.86
6	-.05	-.01	-.15	.79
33	-.10	.06	-.11	.71
12	-.08	.12	.09	.41
17	-.10	.26	.30	.40

Note. Principal Components Analysis, Eigen 2; Varimax with Kaiser Normalization. Rotation converged in 10 iterations, 36 items.

Research Question Three

Does internal consistency exist in the Multicultural Differentiation of Self Inventory's (MDSI's) factors?

MDSI Internal Consistency

Due to the lack of validity of the MDSI, the researcher did not conduct a reliability analysis.

Research Question Four

Is there a significant relationship between participants' Multicultural Differentiation of Self Inventory (MDSI) scores and their Individualism-Collectivism Revised (INDCOL-R) Scale scores?

MDSI and INDCOL-R Scale Correlations

Due to the lack of validity of the MDSI, the researcher did not conduct correlational analysis between participants' MDSI scores and INDCOL-R Scale scores.

Research Question Five

Is there a significant relationship between participants' Multicultural Differentiation of Self (MDSI) scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

MDSI and Demographics Correlations

Due to the lack of validity of the MDSI, the researcher did not conduct correlational analysis between participants' MDSI scores and demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting).

Research Question Six

Does internal consistency exist in the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

INDCOL-R Scale Internal Consistency and Item Analysis

A Cronbach's alpha analysis indicated good reliability all of the INDCOL-R Scale dimensions (i.e., α = individualism, .76; horizontal individualism, .81; vertical individualism,

.76; collectivism, .75; horizontal collectivism, .73; vertical collectivism, .79; respectively). Item means averaged at 6.04 and ranged from 3.45 to 7.62, with a minimum/maximum value of 2.21 and variance of 1.47. Item variances averaged at 3.92 and ranged from 2.24 to 5.39 (i.e., 3.15), with a minimum/maximum value of 2.41 and variance of 1.04. Finally, inter-item correlations averaged at .13 and ranged from -.26 to .67 (i.e., .93), with a minimum/maximum value of -2.60 and variance of .04 (see Table 23).

The INDCOL-R Scale dimension means were 44.75 for individualism, 26.78 for horizontal individualism, 17.97 for vertical individualism, 51.88 for collectivism, 28.21 for horizontal collectivism, and 23.69 for vertical collectivism (i.e., $SD = 9.85, 5.92, 6.65, 9.31, 5.09, 6.65$; respectively). The item-total statistics indicated that the scale mean if an item deleted ranged from 89.01 (i.e., item 10) to 93.18 (i.e., item 6), whereas the scale variance if an item deleted ranged from 157.49 (i.e., item 15) to 177.60 (i.e., item 12). In addition, the corrected item-total correlation ranged from .13 (i.e., item 8) to .44 (i.e., item 5), whereas the squared multiple correlation ranged from .30 (i.e., item 8) to .58 (i.e., item 15). Finally, the scale alpha if an item deleted ranged from .68 (i.e., items 5, 13, 15; respectively) to .72 (i.e., item 8; see Table 23).

Table 23

INDCOL-R Scale Internal Consistency and Item Analyses (N = 403)

Dimension Statistics	No. of Items	<i>M</i>	<i>SD</i>	Variance
Individualism	8	44.75	9.85	97.04
Horizontal Individualism	4	26.78	5.92	35.09
Vertical Individualism	4	17.97	6.65	44.25
Collectivism	8	51.88	9.31	86.58
Horizontal Collectivism	4	28.21	5.09	25.92
Vertical Collectivism	4	23.69	6.65	44.22

	<i>M</i>	Minimum	Maximum	Range	Max/Min	Variance
Item Means	6.04	3.45	7.62	4.17	2.21	1.47
Item Variances	3.92	2.24	5.39	3.15	2.41	1.04
Inter-Item Correlations	.13	-.26	.67	.93	-.260	.04

Item Total Statistics	α	Scale Mean Item Deleted	Variance Item Deleted	Corrected Item- Total Correlation	Sq. Multiple Correlation	Alpha Item Deleted
Individualism	.76					
Horizontal Individualism	.81					
1		89.64	167.09	.36	.46	.69
2		90.47	166.27	.32	.57	.70
3		90.06	172.96	.23	.45	.70
4		89.56	168.75	.36	.36	.70
Vertical Individualism	.76					
5		90.31	160.04	.44	.39	.68
6		93.18	161.76	.36	.50	.69
7		92.37	161.35	.35	.43	.69
8		92.68	175.77	.13	.30	.72
Collectivism	.75					
Horizontal Collectivism	.73					
9		89.66	174.39	.24	.44	.70
10		89.01	176.36	.22	.45	.70
11		90.28	175.32	.14	.37	.71
12		89.39	177.60	.18	.47	.71
Vertical Collectivism	.79					
13		90.67	161.37	.41	.40	.68
14		90.21	160.94	.38	.50	.69
15		91.23	157.49	.42	.58	.68
16		90.76	169.48	.31	.31	.70

Research Question Seven

Is there a significant relationship between the Individualism-Collectivism Revised (INDCOL-R) Scale and dimensions?

INDCOL-R Scale Correlations

Using Pearson's r and the probability value of .01, the INDCOL-R Scale and dimensions (i.e., INDCOL-R, individualism, horizontal individualism, vertical individualism, collectivism, horizontal collectivism, vertical collectivism) correlations were analyzed based on current standards (i.e., $r = 0$, no correlation; $\pm .00-.19$ very weak, $.20-.39$ weak, $.40-.59$ moderate, $.60-.79$ strong, $.80-1.0$ very strong; Laerd Statistics, 2018). The INDCOL-R Scale was significant and moderately to strongly correlated with the dimensions of individualism, horizontal individualism, vertical individualism, collectivism, horizontal collectivism, and vertical collectivism ($r = .73, .54, .60, .69, .42, .65, p = < .001$; respectively). In addition, the individualism dimension was significant and strongly to very strongly correlated with the horizontal individualism and vertical individualism dimensions ($r = .75, .81, p = < .001$; respectively). The horizontal individualism dimension was significant and weakly correlated with the vertical individualism dimension ($r = .22, p = < .001$). The vertical individualism dimension was significant and very weakly correlated with the vertical collectivism dimension ($r = .12, p = < .01$). The collectivism dimension was significant and strongly to very strongly correlated with the horizontal collectivism and vertical collectivism dimensions ($r = .72, .85, p = < .001$; respectively). Finally, the horizontal collectivism dimension was significant and weakly correlated with the vertical collectivism dimension ($r = .24, p = < .001$). The remaining correlations were significant and very weak, including the individualism dimension with the collectivism, horizontal collectivism, and vertical collectivism dimensions ($r = .02, -.10, .11, p = > .01$; respectively); the horizontal individualism dimension with the collectivism, horizontal collectivism, and vertical collectivism dimensions ($r = .00, -.04, .04, p = > .01$); and the vertical individualism dimension with the

collectivism and horizontal collectivism dimensions ($r = .03, -.11, p = > .01$; respectively; see Table 24).

Table 24

INDCOL-R Scale Pearson's r Correlations (N = 403)

	IC-R	I	HI	VI	C	HC	VC
INDCOL-R	1.00						
Individualism – I	.73**	1.00					
Horizontal Individualism – HI	.54**	.75**	1.00				
Vertical Individualism – VI	.60**	.81**	.22**	1.00			
Collectivism – C	.69**	.02	.00	.03	1.00		
Horizontal Collectivism – HC	.42**	-.10	-.04	-.11	.72**	1.00	
Vertical Collectivism – VC	.65**	.11	.04	.12*	.85**	.24**	1.00

Note. * $p < .01$; ** $p < .001$

Research Question Eight

Is there a significant relationship between participants' Individualism-Collectivism Revised (INDCOL-R) Scale scores and their demographic data (i.e., age, gender, socio-economic status or SES, relationship status, race, ethnicity, immigrant generation in the U.S. from another country, cultural affiliation, current majority community cultural setting)?

INDCOL-R Scale and Demographics Correlations

Using Pearson's r and the probability cutoff value of .01 and .001, the participants' INDCOL-R Scale scores were significant and very weakly correlated with their gender, race, current majority community cultural setting ($r = .13, .13, .12, p < .01$; respectively), as well as immigrant generation ($r = -.15, p < .001$). Participants' horizontal individualism dimension scores were significant and very weakly correlated with their immigrant generation ($r = -.14, p < .01$). Participants' vertical individualism dimension scores were significant and very weakly

correlated with their gender ($r = -.16, p < .001$) and cultural affiliation ($r = -.14, p < .01$). Participants' collectivism dimension scores were significant and very weakly correlated with their relationship status, current majority community cultural setting ($r = .16, .18, p < .001$; respectively), and cultural affiliation ($r = -.13, p < .01$). Finally, participants' horizontal collectivism dimension scores were significant and very weakly correlated with their current majority community cultural setting ($r = .15, p < .001$). Participants' vertical collectivism dimension scores were significant and very weakly correlated with their age, SES, current majority community cultural setting ($r = .13, .12, .13, p < .01$; respectively). Participants' vertical collectivism dimension scores were significant and very weak to weakly correlated with their gender, relationship status, and cultural affiliation ($r = -.15, .21, -.19, p < .001$; respectively).

The remaining correlations were above the probability cutoff value of .01 and very weak, including participants' INDCOL-R Scale scores with their age, SES, relationship status, ethnicity, cultural and affiliation ($r = .10, .08, .12, -.09, -.12, p > .01$; respectively); their individualism dimension scores with their age, gender, SES, relationship status, race, ethnicity, immigrant generation, cultural affiliation, and current majority community cultural setting ($r = .09, -.12, .04, .02, .09, -.09, -.10, -.04, .01, p > .01$; respectively); their horizontal individualism dimension with their age, gender, SES, relationship status, race, ethnicity, cultural affiliation, and current majority community cultural setting ($r = .07, -.01, -.05, -.04, .08, -.07, .09, -.01, p > .01$; respectively); their vertical individualism dimension scores with their age, SES, relationship status, race, ethnicity, immigrant generation, and current majority community cultural setting ($r = .06, .10, .06, .07, -.07, -.03, .02, p > .01$; respectively); their collectivism dimension scores with their age, gender, SES, race, ethnicity, and immigrant generation ($r = .06, -.08, .07, .10, -$

.03, -.11, $p > .01$; respectively); their horizontal collectivism dimension scores with their age, gender, SES, relationship status, race, ethnicity, immigrant generation, and cultural affiliation ($r = -.08, .06, -.03, .01, .03, .00, -.08, .01, p > .01$; respectively); and their vertical collectivism dimension scores with their race, ethnicity, and immigrant generation ($r = .11, -.04, -.10, p > .01$; respectively; see Table 25).

Table 25

INDCOL-R Scale and Demographics Pearson's r Correlations

	IC-R	I	HI	VI	C	HC	VC
Age	.10	.09	.07	.06	.06	-.08	.13*
Gender	-.13*	-.12	-.01	-.16**	-.08	.06	-.15**
SES	.08	.04	-.05	.10	.07	-.03	.12*
Relationship Status	.12	.02	-.04	.06	.16**	.01	.21**
Race	.13*	.09	.08	.07	.10	.03	.11
Ethnicity	-.09	-.09	-.07	-.07	-.03	.00	-.04
Immigrant Generation	-.15**	-.10	-.14*	-.03	-.11	-.08	-.10
Cultural Affiliation	-.12	-.04	.09	-.14*	-.13*	.01	-.19**
Current Majority Community Cultural Setting	.12*	.01	-.01	.02	.18**	.15**	.13*

Note. * $p < .01$; ** $p < .001$. IC-R = INDCOL-R Scale, I = individualism, HI = horizontal individualism, VI = vertical individualism, C = collectivism, HC = horizontal collectivism, VC = vertical collectivism.

Summary

In this chapter, results of the present research were displayed, including frequency and descriptive statistics for the demographic questionnaire. The results of the exploratory factor analysis (EFA) using a principle components analysis (PCA) with an orthogonal varimax rotation indicated no clear and distinct components representing differentiation of self in the

individualistic, collectivistic, and transcultural contexts, respectively. The correlational analysis between the INDCOL-R Scale and demographics, as well as the validity and reliability of the INDCOL-R Scale dimensions were provided.

Chapter V

Discussion

This chapter includes a discussion of results related to an exploratory factor analysis (EFA) using principle components analysis (PCA) to test the validity of the Multicultural Differentiation of Self Inventory (MDSI). Interpretation and implications of the results that included data collected from 403 graduate student participants, 22 years and above, enrolled at 33 universities in southeast U.S. using a demographic questionnaire, the MDSI, and the Individualism-Collectivism Revised (INDCOL-R) Scale, as well as final conclusions will be presented.

Research Findings Related to Literature

The purpose of the present research was to address the existing gap in assessment of differentiation of self by developing and testing the validity and reliability of the MDSI. The MDSI was constructed and researched to accurately assess individuals' level of differentiation of self in multiple cultural contexts. A discussion of the present research findings with the MDSI compared to previous research with other instruments and the cultural demographics (i.e., race, ethnicity, immigrant generation in the U.S., cultural affiliation, current majority cultural setting) is provided. Also, the present research findings with the INDCOL-R Scale is described.

Differentiation of Self Instruments

When assessing differentiation of self in the present research, the 36-item MDSI did not yield valid results based on the EFA that clearly represented three distinct cultures (i.e., individualistic, collectivistic, transcultural). In contrast, researchers have validated four differentiation of self instruments without assessing the three distinct cultures, the LDSS with one factor (Haber, 1990), the DSI (Skowron & Friedlander, 1998), the DSI-R (Skowron &

Schmitt, 2003), and the DSI-SF (Drake et al., 2015) with four factors each. Due to a lack of validity with the MDSI, further convergent validity with the INDCOL-R Scale was not conducted and reliability using Cronbach's alpha with the MDSI was not assessed.

Participant Demographics

When comparing previous research demographics for assessing the construct, differentiation of self, the present research included the largest number of graduate students (i.e., 403). Other research included university students, as well as a variety of participant types; friends and acquaintances of researchers; state agency employees; university staff, faculty, and spouses (i.e., 313, 169, 127; phases 1-3, respectively; DSI; Skowron & Friedlander, 1998); parent, relationship, and genealogy groups (i.e., 225, Skowron & Schmitt, 2003); and university students (i.e., 344, 595, 47; phases 1-3, respectively; DSI-SF, Drake et al., 2015). Graduate students were from 33 universities across six states in the southeast U.S., which was different to the locations for the DSI (i.e., three states in the Northeast, Midwest and West Coast; Northeastern state agency; phases 1-2, respectively; Skowron & Friedlander, 1998) and DSI-SF (i.e., one Midwestern university, all three phases of the research; Drake et al., 2015). About three fourths of the graduate students were women (72%), which was similar to previous research that included more women than men, with the DSI (68%, 66%, 70%; phases 1-3, respectively; Skowron & Friedlander, 1998), DSI-R (79%, Skowron & Schmitt, 2003), and DSI-SF (56%, 67%, 85%; phases 1-3, respectively; Drake, 2015).

Graduate students' minimum age was 22, which was younger than the minimum age of 25 (DSI, Skowron & Friedlander, 1998; DSI-R, Skowron & Schmitt, 2003) and older than the minimum age of 18 (DSI-SF, Drake et al., 2015). Also, graduate students' mean age was lower, 34, which was different than the mean age in research by Skowron and Friedlander (1998; i.e.,

37, 42, 42; phases 1-3, respectively; DSI) and research by Skowron and Schmitt (2003; i.e., 36; DSI-R), but higher than Drake et al.'s (2015) research (i.e., 26, 27, 30; phases 1-3, respectively; DSI-SF).

Previous researchers did not report relationship status in the first two phases with the DSI (Skowron & Friedlander, 1998) or the three phases with the DSI-SF (Drake 2015). However, two thirds of participants were married in the third phase of the DSI (Skowron & Friedlander, 1998) and about half were married for the DSI-R (i.e., 43%, Skowron & Schmitt, 2003), which was more than in the present research with one third of the graduate students who reported they were married. Also, about one fourth of the graduate students reported their relationship status as not married, which was different than the one fifth not married with the DSI-R research (Skowron & Schmitt, 2003).

Graduate students' race differed from previous research since about half were White and lower than more than three quarters of participants in the development of the LDSS (Haber, 1990), the DSI (3 phases, Skowron & Friedlander, 1998), and the DSI-R (Skowron & Schmitt, 2003); and more than two thirds with the DSI-SF (3 phases, Drake et al., 2015). In addition, graduate students were about one fifth Black or African American that was higher than previous research with less than one twentieth in previous research (i.e., phase 3, Drake et al., 2015; 3 phases, Skowron & Friedlander, 1998; Skowron & Schmitt, 2003), one twelfth in one phase (i.e., 2) of Drake et al.'s (2015) research, and one seventh another (i.e., phase 1). In the present research, graduate students' cultural experiences of spoken languages, immigrant generation in the U.S., cultural affiliation, and current majority community cultural setting (i.e., individualistic, collectivistic, transcultural) were not reported in previous differentiation research (Haber, 1990; Skowron & Friedlander, 1998; Skowron & Schmitt, 2003; Drake et al., 2015).

INDCOL-R Scale Culture Assessment

In previous research, the INDCOL-R Scale's four dimensions (i.e., horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism) were found valid and reliable (Györkös et al., 2013; Lalwani et al., 2006). In the present research, reliability for the INDCOL-R's four dimensions were found and descriptive statistics were compared with other research findings.

Participant Demographics

The 403 graduate students in the present research differed from previous INDCOL-R research that included working individuals (i.e., 585, 818, samples 1-2, Györkös et al., 2013); undergraduate students (i.e., 89, sample 1; 1,124; 192; 76; phases 1-4, respectively; Lalwani et al., 2006; 661, Ng & Dyne, 2001; 127, 90; phases 2-3; respectively; Triandis & Gelfand, 1998); unspecified university students (i.e., 326, phase 1, Triandis & Gelfand, 1998); undergraduate students and church members (i.e., 65, sample 2, phase 1, Lalwani et al., 2006); and a combination of research directors, postdocs, graduate and undergraduate students, and technicians (i.e., 465, Vodosek, 2009). The southeast U.S. location with the present research differed from the locations of other INDCOL-R research (i.e., Switzerland and South Africa, samples 1-2, Györkös et al., 2013; Midwest U.S. and Singapore, phase 1; Midwest U.S, phases 2-4; respectively; Lalwani et al., 2006; Midwest U.S., Ng & Dyne, 2001; South Korea, phase 1; Midwest U.S., phases 2-4; Triandis & Gelfand, 1998; Midwest U.S, Vodosek, 2009).

Graduate students' gender was about three fourths women; whereas, other research included about half women (sample 1, Györkös et al., 2013), about two thirds women (sample 2, Györkös et al., 2013; phase 4, Lalwani et al., 2006), about two thirds men (Vodosek, 2009); and gender was not disclosed in other research (Triandis & Gelfand, 1998; Ng & Dyne, 2001).

Students' mean age was 34; whereas, other research participants' mean age was the same (i.e., 34, sample 2, Györkös et al., 2013), lower (i.e., 30, Vodosek, 2009), or higher (i.e., 40, sample 1, Györkös et al., 2013), or the mean age was not disclosed (Triandis & Gelfand, 1998; Ng & Dyne, 2001). Students' race was only similar to one other sample with about half of the graduate students who identified as White (sample 2, Györkös et al., 2013), but lower than other research with about two thirds Swiss native (sample 1, Györkös et al., 2013), about two thirds European American (phase 4, Lalwani et al., 2006), and about three fourths White (phases 2-4, Triandis & Gelfand, 1998; Vodosek, 2009).

Participant cultural experiences of spoken languages, immigrant generation in the U.S., cultural affiliation, and current majority community cultural setting (i.e., individualistic, collectivistic, transcultural) were not reported in previous INDCOL-R research (Györkös et al., 2013; Lalwani et al., 2006; Triandis & Gelfand, 1998; Vodosek, 2009). For country of birth, in the present research, approximately four fifths of the graduate students were born in the U.S., which was the same when compared to participants in Lalwani et al.'s (2006) research (phase 4), but differed compared to other phases in the same research including, over four fifths and about half from the U.S., respectively (phases 1 and 3; phase 2; respectively). Country of birth was not reported in four other INDCOL-R research (i.e., Györkös et al., 2013; Ng & Dyne, 2001; Triandis & Gelfand, 1998; Vodosek, 2009).

INDCOL-R Scale Reliability

When compared to previous research, the INDCOL-R Scale in the present research was reliable (i.e., $\alpha = .70$ or higher) across all four dimensions (i.e., four items each) and the individualism and collectivism items (i.e., 8 items each). Similarly, reliability research was good (i.e., $\alpha = .70$ or higher) for four dimensions in Györkös et al.'s (2013) research (i.e.,

individualism, collectivism, horizontal individualism, vertical collectivism; South Africa,); two dimensions in research by Triandis and Gelfand (1998; i.e., horizontal individualism, vertical collectivism); two dimensions, vertical individualism and horizontal collectivism in Györkös et al.'s (2013) Lalwani et al.'s (2006), Ng and Dyne's (2001), and Triandis and Gelfand's (1998); as well as two dimensions, individualism and collectivism in Györkös et al.'s research (sample 1). In contrast, reliability was questionable (i.e., $\alpha = < .70$) for the horizontal individualism dimension in Györkös et al.'s (sample 1; 2013), Lalwani et al.'s (2006), and Ng and Dyne's (2001) research, as well as the vertical collectivism dimension in research by Lalwani et al. (2006) and Ng and Dyne (2001).

With the present research, 13 of the 21 correlations between the INDCOL-R Scale, the four dimensions, and individualism and collectivism were significant and ranged from very weak to very strong; individualism, horizontal individualism, vertical individualism, collectivism, horizontal collectivism, and vertical collectivism. Of the four dimensions and individualism and collectivism in the present research, seven significant correlations were found that were the same as Lalwani et al. (2006), ranging from weak to very strong. Additionally, compared to only three significant correlations that ranged from very weak to weak, the research by Ng and Dyne (2001) had four significant correlations that ranged from weak to very strong with four dimensions; horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism.

When comparing the present research to other research, seven significant correlations that ranged from weak to very strong were the same and one was different; the individualism with the horizontal individualism dimension was strong and the same; the individualism with the vertical individualism dimensions was very strong and the same; and the horizontal individualism with

the vertical individualism dimensions was weak and the same (i.e., Lalwani et al., 2006), yet different to other research (i.e., very weak, Ng & Dyne, 2001). Further, the vertical individualism with the vertical collectivism dimensions was very weak and the same (i.e., Ng & Dyne, 2001); the collectivism with the horizontal collectivism dimensions was strong and the same; the collectivism with the vertical collectivism dimensions was very strong and the same (i.e., Lalwani et al., 2006); and the horizontal collectivism with the vertical collectivism dimensions was weak and the same (i.e., Lalwani et al., 2006; Ng & Dyne, 2001; respectively). Other significant correlations were unique to each research, including the horizontal individualism with the vertical collectivism dimensions (i.e., weak, Lalwani et al., 2006), the horizontal collectivism with the horizontal individualism dimensions (i.e., very weak, Ng & Dyne, 2001), and the present research INDCOL-R Scale with the dimensions of individualism (i.e., strong), horizontal individualism (i.e., moderate), vertical individualism (i.e., strong), collectivism (i.e., strong), horizontal collectivism (i.e., moderate), and vertical collectivism (i.e., strong).

Further, in comparison to other research graduate students' average individualism and collectivism scores were different from some research and the same as others. Triandis and Gelfand (1998) indicated that separate and distinct dimensions exist related to the broader constructs of individualism (i.e., values of independence) and collectivism (i.e., values of interdependence). Also, the authors said that horizontal and vertical individualism were inherently connected through ideas of independence, and horizontal and vertical collectivism were inherently linked through ideas of interdependence. When comparing graduate students averages on each of the four dimensions and individualism and collectivism, graduate students' individualism was reflected in their inclination towards independence and was lower, 45, than participants' individualism beliefs in Györkös et al.'s (2013) research (i.e., 46, 49, samples 1-2).

Students' horizontal individualism beliefs about autonomy, equality, and independence that surround the hierarchical structures in their society were on average the same, 27, as in Györkös et al.'s (2013) research (i.e., 27, 27; samples 1-2; respectively). For vertical individualism, students' beliefs in acceptance of inequalities, autonomy, competition, and independence were the same, 18, as participants in sample 1 (i.e., 18), but different than the second sample of participants (i.e., 22, Györkös et al., 2013).

Graduate students' values of collectivism was found in their gravitation towards values of interdependence which are tied specifically to hierarchical structures in society, was lower, 52, than participants in Györkös et al.'s (2013) research (i.e., 56. 57, samples 1-2). Further, students' horizontal collectivism was reflected in their beliefs about perceiving self as collective, and seeing all members of the collective as the equal, was the same, 28, in samples 1 and 2 (i.e., 28, 28; respectively). Students' vertical collectivism was reflected in their acceptance of inequalities, interdependence, and sacrifice was lower, 24, than participants' vertical collectivism in samples 1 and 2 (i.e., 28, 29; respectively; Györkös et al., 2013).

For the present research, demographic correlations with the INDCOL-R Scale and dimensions were examined; however similar correlations were not examined in previous research, except for Vodosek's (2009) and Young et al.'s (2019) research. Specifically, both vertical individualism and collectivism for graduate students had little correlations to their gender, which differed from Vodosek's (2009) research in that only vertical individualism was weakly correlated to participant sex. Also, in the present research, graduate students' SES with their vertical collectivism was very weak, which differed from Young et al.'s (2019) research where vertical individualism and horizontal and vertical collectivism weakly correlated with participants' SES.

Implications

In the present research, several implications resulted for researchers in differentiation of self and cultural assessment, as well as counselors. Distinctions among cultures, including individualistic, collectivistic, transcultural as well as possibly other culture perspectives are examined in the literature; yet a valid and reliable instrument that assesses differentiation of self in various cultures has not been successfully developed. An implication is that existing research does not include a much needed instrument to assess differentiation of self in multiple cultural contexts. Several authors stated that the U.S. is largely an individualistic society (Chung & Gale, 2006; Hofstede, 2011; Kim et al., 2015; Triandis, 1995) that seemed to be reflected in various research conducted with existing differentiation of self instruments (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015). For example, no research included participant representation from various immigrant generations in the U.S. (i.e., first, second, third, fourth, and fifth or more) as was conducted in the present research, with approximately one third of participants' cultural affiliations represented by multiple cultures (i.e., collectivistic, individualistic, transcultural) in the southeast region of the U.S. As described by McGoldrick and Hardy (2008b) and Richter and Nollert (2014), the southeast U.S. population has had a continuous shift in lived experiences, which may have been partially impacted by their past immigrant generations. Thus, an implication is to be aware that the generation of participant immigration could be a way to assess their cultural affiliation.

Utilizing current differentiation of self instruments with the knowledge of existing bias towards an individualistic cultural context (Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015; O'Hara & Meteyard, 2011) may result in a different therapeutic assessment approach with people from non-White and non-individualistic populations. Further exploration of

individuals' cultural context that creates meaning behind their responses to specific items is necessary. According to existing assessment standards, when an instrument is not normed on a specific population (AARC, 2012; ACA, 2014), that instrument should not be used with populations that were not adequately represented in the instrument development process. In short, exploration of differentiation of self that is reflective of individualistic perspectives misses perspectives from other cultures. An implication is that it is important to utilize instruments that assess multiple cultural perspectives as described by various authors (e.g., Alaedein, 2008; Chung & Gale, 2006, 2009; Kim et al., 2015). Another implication is that with the inclusion of a larger number of non-White participants, such as Black or Asian, in comparison to previous research on differentiation of self, it would be important to include a diverse participant sample for instrument development. With increased participant representation of other races in research, an increase in other culturally diverse populations would be possible.

Further, since the location of participants in differentiation of self instrument development research (DSI, Skowron & Friedlander, 1998; DSI-R, Skowron & Schmitt, 2003; DSI-SF, Drake et al., 2015), as well as the present research has been limited to the U.S., an implication is the acknowledgement that a certain demographic of participants has been lacking in the research. For example, involvement of participants located in non-U.S. countries would allow assessment of differentiation in multiple cultural contexts and with multicultural identities that exist worldwide. Also, gender was limited to mostly women in other assessment of differentiation research (DSI, Skowron & Friedlander, 1998; DSI-R, Skowron & Schmitt, 2003; DSI-SF, Drake et al., 2015) and cultural research (Györkös et al., 2013; Lalwani et al., 2006; Vodosek, 2009); thus, it was not surprising that the present research also included mostly

women. An implication would be that including a larger percentage of other genders would allow for better representation of existing cultural experiences of individuals.

A large majority of participants in both the assessment of differentiation of self as well as cultures included student populations. An implication is that the limited population in previous research may have only represented one or two cultures instead of samples from diverse cultures. Also, for both differentiation and cultural assessment, several demographic variables were not reported, including spoken languages, immigrant generation in the U.S., cultural affiliation, and current majority community cultural setting (i.e., individualistic, collectivistic, transcultural). As a result, comparisons could not be drawn between sample populations that could indicate important connections between participants' lived experiences and cultural identities in relation to geographic regions, which could shed light on individualistic, collectivistic, and transcultural similarities and differences. Additionally, as represented in the present research, but not in past research, the relationship between individuals' cultures to their cultural experiences, such as participant immigrant generation or current cultural setting, are inherently connected and should be considered when exploring cultural identity.

With the present and Györkös et al.'s (2013) research, participants' values were focused on independence and autonomy in an equal society, whereas they had lower acceptance of inequality and competition, which was different than Triandis and Gelfand's (1998) proposal that the U.S. has an inherent inclination towards values of societal inequality rooted in capitalism, autonomy, competition, and independence. Also, according to Györkös et al. (2013), South African culture compared to Swiss culture is drawn towards collectivistic beliefs through communalism and sharing, yet the Swiss and U.S. participants shared similar values of societal equality. An implication is that a changing cultural dynamic in countries like the U.S.,

Switzerland, and South Africa may have influenced a similar shift towards acceptance of societal equality, autonomy, and independence. Further, accounting for the differences in race between White and non-White graduate students and Györkös et al.'s (2013) participants, an implication is that multi-ethnic cultural influences on individuals' values of equality, independence, and autonomy in the U.S. and in Switzerland and South Africa can result in less values of acceptance of societal inequalities and competition in individuals. Specifically, an equal division of cultural affiliation between individualistic, collectivistic, and transcultural cultures could impact the reduction of individuals' acceptance of societal inequality, autonomy, and independence.

Similarly, an implication from the present and Lalwani et al.'s (2006) research is that participants' individualistic values of interdependence and acceptance of societal inequalities and sacrifice, as well as societal equality as an equal part of the collective; further supports Triandis and Gelfand's (1998) claim that interdependence is inherently connected to and represented by both vertical and horizontal individualism. Further validation of Triandis and Gelfand's (1998) constructs of both vertical individualism and collectivism were indicated by the present and Ng and Dyne's (2001) research that values of inequalities with autonomy, competition, and independence were weakly connected to values of acceptance of inequalities, interdependence and sacrifice; since vertical beliefs about societal inequality is inherently connected but individualistic and collectivistic values differ. Also, validation for the horizontal and vertical collectivism constructs had a weak connection to values of interdependence and specific values of societal equality versus values of societal inequalities and sacrifice. However, the samples used in the present research and other INDCOL-R research (i.e., Lalwani et al., 2006; Ng & Dyne, 2001) were limited to the U.S., with no information on participants' country of birth or current cultural affiliation (i.e., individualistic, collectivistic, transcultural) that limits further

exploration of possible connections between types of individualism and collectivism across geographic locations. Therefore, implying that country of birth, cultural affiliation, and geographic location are important when assessing and further understanding the connections between societal structures and individuals' cultural beliefs and values.

Overall, across different sample populations, a connection does exist in Triandis and Gelfand's (1998) claim that participants' individualistic and collectivistic cultures are inherently represented in both the horizontal and vertical aspects of both cultures, and that the INDCOL-R Scale dimensions serve as an appropriate yet distinct measurement for individualism and collectivism for use in research and clinical assessment. However, the transcultural context that is described in literature (Falicov, 2008; Mand, 2010; McGoldrick & Hardy, 2008b; Richter & Nollert, 2014) is not specifically assessed by the INDCOL-R Scale and does not exist in other cultural assessment research as a contrasting construct to individualism and collectivism. An implication is that the exclusion of an important cultural perspective exists with an opportunity to build upon existing instruments to increase representation of a variety of cultural experiences.

Limitations

Several limitations exist in the present research that involved sampling, participant stressors, and possible researcher-participant relationships. First, the use of convenience sampling, rather than random sampling, restricted generalizability of the results to a specific population (Coladarci & Cobb, 2014; Creswell, 2018; Field, 2013), namely, graduate students enrolled at universities in six southeast U.S. states (i.e., Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina). Therefore results do not represent the entire population of the U.S or other countries.

Second, due to increased personal stress and isolation from the COVID-19 pandemic, graduate students' scores may have been impacted by their current circumstances. Specifically, graduate students' daily life could have shifted from a collectivistic and interdependent way of functioning to a more independent lifestyle while trying to maintain social distancing and/or quarantine due to the spread of COVID-19. Conversely, graduate students' independent daily functioning could have shifted to a more interdependent lifestyle when needing to rely on others for assistance with daily tasks that are usually carried out by non-relational caregivers, such as daycare services for children or adult dependents.

Third, due to the subjective nature of self-report assessments, social desirability was not controlled. Therefore, whether graduate students completed the questionnaires based on what they believe about themselves and their experiences or whether they answered questions based on what they thought the "right" or "appropriate" answer should be remains unknown and out of the researcher's control. Last, this researcher has present and prior connections with some graduate students at several universities in southeast U.S. where data was collected due to the locality of the convenience sampling. Although no known relationships existed with the graduate students, it is possible that some students who completed the survey shared an existing relationship with this researcher.

Recommendations for Future Research

In light of the results in the present research, particularly the lack of validity found in the MDSI, several suggestions can be made for future research related to instrument development and multicultural assessment. At the beginning stages of instrument development, Hair et al. (2019) recommended developing at least five items that would represent a possible factor. For the MDSI, an initial item pool of 35 items were adjusted and increased to 36 based on the expert

panel content validation process that resulted in 12 individualistic, 13 collectivistic, and 11 transcultural items. However, based on previous differentiation of self instrument research (i.e., 32 to 100 items, LDSS, Haber, 1990; 44 to 96 first phase, and 43 to 78 second phase, respectively, DSI, Skowron & Friedlander, 1998), future research should include a larger initial item pool with possible removal of items that could provide more valid results.

In terms of multicultural differentiation assessment, a recommendation for future research is to further explore the development of clearly distinct culture constructs in items, as reflective of the distinct culture contexts described in literature; individualistic, collectivistic, and transcultural. The method used to develop items in the present research included distinct emphases on the self, community, and both the self and community. However, further research should be conducted to generate items that uniquely represent each culture in the context of differentiation by reducing similarities in wording of items; for example, I am empowered to advocate for *myself* (item 7, individualistic), I am empowered to advocate for *my community* (item 22, collectivistic), and I am empowered to advocate for *myself and my community* (item 26, transcultural). Also, a qualitative research endeavor could assist in clarifying and determining distinct cultural themes related to differentiation of self that could be used for unique item development.

The distinction between individualistic and collectivistic cultures of differentiation of self has been widely researched, however, the distinction between individualistic and transcultural cultural contexts of differentiation of self, as well as between collectivistic and transcultural contexts of differentiation of self has not been researched. Further research to clarify these distinctions should be pursued, possibly on a global level to increase representation of multiple cultural phenomena. Lastly, instead of assessing differentiation of self in multiple cultural

contexts as a unidimensional latent construct, further investigation could be carried out to determine whether a multidimensional instrument may be a better pursuit, for example, that represents more than one underlying construct like differentiation of self and cultural context, respectively rather than as one unidimensional construct.

Previous research on the INDCOL-R Scale (i.e., Györkös et al., 2013; Lalwani et al., 2006; Triandis & Gelfand, 1998; Vodosek, 2009) did not include demographics that were reported in the present research, including relationship status, spoken languages, immigrant generation in the U.S., cultural affiliation, and current majority community cultural setting (i.e., individualistic, collectivistic, transcultural). A future recommendation would be to collect and analyze various demographics in order to better compare participants' demographics and the impact on differentiation of self in a culture context, specifically to better understand self-identification in a globalized world, for example through cultural affiliation. Further research could be conducted to better compare the relationship between standard (e.g., age) and cultural demographic (e.g., immigrant generation) data and the INDCOL-R Scale. Lastly, further separation of race and ethnicity as two distinct demographics in the present research is missing from both differentiation of self and cultural assessment research that could further enhance the understanding of connections between self-reported cultural identification and levels of differentiation of self, as well as measures of individualism, collectivism, and transcultural.

Conclusions

The results of the present research indicated a lack of validity of the MDSI, yet there still exists a need for a valid and reliable instrument that assesses differentiation of self in multiple cultural contexts. In order to increase chances of the validity and reliability of such an instrument, researchers should establish clear distinctions between the three cultural contexts of

individualism, collectivism, transculturalism in item development before proceeding with a factor analysis of a new instrument.

In the present research, demographics confirmed the presence of diversity among graduate students enrolled at universities in southeast U.S., specifically, that cultural affiliation towards an individualistic, collectivistic, and transcultural contexts made up approximately one third of the graduate students. Although minimal and weak correlations existed between the INDCOL-R Scale and demographics, it was found to be a valid and reliable instrument using the present sample.

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Appendix A

Recruitment Email/Statement

Dear Professor,


I am contacting you in regards to my doctoral dissertation research on the development and initial validation of the Multicultural Differentiation of Self Inventory (MDSI). My name is Nasima Khan and I am a Ph.D. Candidate at the University of New Orleans. I would like to recruit participants for my research from your graduate-level classes. I am interested in learning about how cultures influence the way participants, as people, interact with those around them. As part of my research, participants will complete via Qualtrics a Demographic Questionnaire, the MDSI, and the Individualism-Collectivism Revised (INDCOL-R) Scale. Qualtrics is a pass-word protected survey platform that will allow me to collect participant data through a link and store data for analysis. Completion of the questionnaires should take approximately 15 minutes total.

I would very much appreciate your assistance with my research. I believe your students can tremendously help in the development of a potentially culturally valid instrument to assess emotional functioning in individuals in our community, so that counselors can accurately assess and appropriately facilitate growth in people from all cultural backgrounds.

Best regards,

Nasima

*Nasima R. Khan, M.S., LPC, NCC
Doctoral Candidate in Counselor Education and Supervision
Past-President, Alpha Eta Chapter, Chi Sigma Iota, 2019-2020
Department of Educational Leadership, Counseling, and Foundations
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Appendix B

Informed Consent Statement

[University of New Orleans letterhead]

Dear Participant

I am a graduate student under the direction of Dr. Roxane L. Dufrene in the School of Education at the University of New Orleans. I am conducting a research study about your experience as both a cultural and a relational person. More specifically, I am interested in how culture influences the way you interact with the people around you.

I am requesting your participation in completing the following online questionnaires; a Demographic Questionnaire, the Multicultural Differentiation of Self Inventory (MDSI), and the Individualism-Collectivism Revised (INDCOL-R) Scale. This process should take approximately 15 minutes. Your participation in this research is voluntary. If you choose not to participate or to withdraw from this research at any time, there will be no penalty. Participating in this research will not affect your status as a student or your grade in any course. The results of this research may be published, but your name will not be used.

Although there may be no direct benefit to you, the possible benefit of your participation is that it will allow me to work towards developing a culturally valid instrument, which can be used in counseling settings to more accurately assess emotional functioning across cultures. This survey is anonymous. As in most internet communication, there may be a record of exchange in a cache somewhere on the computer system or internet service provider's log file. Therefore, please delete your temporary internet files and close your browser after completion of the survey.

I will be available via email to answer clarifying questions. If you have any questions concerning my research, please email me at [REDACTED] or Dr. Roxane L. Dufrene at [REDACTED]. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, please contact Dr. Ann O'Hanlon at the University of New Orleans at [REDACTED].

Completion of the online questionnaires will be considered your consent to participate in this study.

Sincerely,



Nasima R. Khan

Appendix C

Demographic Questionnaire

Please enter your:

1. University: _____
2. Age: _____

For 3., 4., and 5., please select one choice that applies to you.

3. Gender
 - a. Male
 - b. Female
 - c. Genderqueer
 - d. Agender
 - e. Transgender
 - f. Cisgender
 - g. Other _____
4. Socio-Economic Status
 - a. Low (\$31,000 or less)
 - b. Lower-Middle (\$31,000-\$42,000)
 - c. Middle (\$42,000-\$126,000)
 - d. Upper-Middle (\$126,000-\$188,000)
 - e. High (\$188,000 or more)
5. Relationship Status
 - a. Single
 - b. Dating
 - c. Non-Married Committed
 - d. Polyamorous
 - e. Separated
 - f. Divorced
 - g. Widowed
 - h. Married
 - i. Other _____

For 6. and 7., please select as many choices that apply to you.

6. Race
 - a. White
 - b. Black or African American
 - c. Hispanic or Latino
 - d. American-Indian or Alaska Native
 - e. Asian
 - f. Native Hawaiian or Pacific Islander
 - g. Other _____
7. Ethnicity
 - a. African
 - b. Arab
 - c. Australian
 - d. Canadian

Appendix C (cont'd)

Demographic Questionnaire

- e. East Asian
- f. Eastern European
- g. European
- h. Euro-American
- i. Latin American
- j. Middle-Eastern
- k. North African
- l. North American
- m. South American
- n. South Asian
- o. Scandinavian
- p. Other _____

For 8., 9., 10., 11., 12., and 13., please enter specific information as indicated.

- 8. Country of Birth (e.g. U.S., China, India): _____
- 9. Residence State in U.S. (if applicable): _____
- 10. Residence Country/Countries (e.g. U.S., or U.S. and Mexico): _____
- 11. Current Geographic Location due to the Covid-19 pandemic: _____
- 12. Country/Countries of Citizenship (e.g. U.S., or U.S. and Canada): _____
- 13. Language(s) Spoken: _____

For 14., 15., and 16, please select one choice that applies to you.

- 14. Immigrant generation in the U.S. from another country
 - a. First (you immigrated)
 - b. Second (your parents immigrated)
 - c. Third (your grandparents immigrated)
 - d. Fourth (your great-grandparents immigrated)
 - e. Fifth or more (your great-great-grandparents or their great-grandparents immigrated)
- 15. Cultural Affiliation
 - a. **Collectivistic** (*This context is defined as “a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of, and duties imposed by, those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives,” Triandis, 1995, p. 2)*)
 - b. **Individualistic** (*This context is defined as “a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preferences, needs, rights, and the contracts they have established with others; give priority to their personal goals over the goals of others; and emphasize rational analyses of the advantages and disadvantages of associating with others,” Triandis, 1995, p. 2)*)
 - c. **Transcultural** (*This context is defined as “a perspective through which an individual can perceive their “attachments across various cultures” through “migration and the boundedness of social spaces” as well as experiencing the “cultural boundedness of other concepts such as multiculturalism or assimilation.” Multiculturalism and acculturation exist under the broader concept of transculturalism since “transculturalism refers to the symmetric merging of elements from different cultures” Richter & Nollert, 2014, p. 461)*)
- 16. Current Majority Community Cultural Setting:
 - a. Collectivistic
 - b. Individualistic
 - c. Transcultural

Appendix D

Individualism-Collectivism Revised (INDCOL-R) Scale (Triandis & Gelfand, 1998) based on Singelis et al.’s original 32-item INDCOL Scale (1995)

This questionnaire is anonymous, and there are no right or wrong answers. We want to know if you strongly agree or disagree with some statements. If you strongly agree enter a 9 in the blank space; if you strongly disagree, enter a 1 in that space; if you are unsure or think that the question does not apply to you, enter a 5 next to the statement. In short, use this key:

Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree

1. I’d rather depend on myself than on others. HI
2. I rely on myself most of the time; I rarely rely on others. HI
3. I often do “my own thing.” HI
4. My personal identity, independent of others, is very important to me. HI
5. It is important that I do my job better than others. VI
6. Winning is everything. VI
7. Competition is the law of nature. VI
8. When another person does better than I do, I get tense and aroused. VI
9. If a co-worker gets a prize, I would feel proud. HC
10. The well-being of my co-workers is important to me. HC
11. To me, pleasure is spending time with others. HC
12. I feel good when I cooperate with others. HC
13. Parents and children must stay together, as much as possible. VC
14. It is my duty to take care of my family, even when I have to sacrifice what I want. VC
15. Family members should stick together, no matter what sacrifices are required. VC
16. It is important to me that I respect decisions made by my groups. VC

Note. Michele Gelfand, the co-author of the INDCOL-R Scale granted permission to use the instrument in this research (see Appendix E).

Appendix E

Permission to use the INDCOL-R Scale

Michele Gelfand <[REDACTED]>

Yes, you have permission! You might want to also see Schteynberg & Gelfand (2000) [2009] in JCCP which also has a descriptive norm scale of the 1998 scale (what "Most people" would do in your country).

Best of luck!

On Sun, Jul 28, 2019 at 9:54 AM Nasima Khan <[REDACTED]> wrote:

Dr. Gelfand,

I am a doctoral student at the University of New Orleans. This may or may not be the first email you are receiving from me. I tried emailing you last year and a couple times in the past week, but it may be that I didn't have the correct email address ([REDACTED]). I was in touch with Dr. Singelis recently and it appears that he gave me a different email address ([REDACTED]) so I am trying this email now. My apologies if this is the third email from me!

I am emailing to seek permission from you to use the 1998 Vertical/Horizontal or INDCOL-R Scale in my dissertation research. Please see forwarded emails from me below for more details about my research.

I would appreciate it if you could let me know if I can use this instrument in my research. Thank you in advance for your time.

Best regards,
Nasima

Appendix F

Expert Panel Content Validation Form

September 26, 2019

Dear Expert Panelist,

Thank you for agreeing to participate in the content validation process for the development of the Multicultural Differentiation of Self Inventory (MDSI). Your input is invaluable and I appreciate your time and effort in this process. Please complete the expert panel content validation form below, and return via email to [REDACTED] at your earliest convenience. I very much look forward to receiving your feedback. Thank you once again.

Sincerely,

Nasima

*Nasima R. Khan, M.S., LPC, NCC
Ph.D. Candidate, Counselor Education and Supervision
Past-President, Alpha Eta Chapter, Chi Sigma Iota, 2019-2020
Department of Educational Leadership, Counseling, and Foundations
University of New Orleans*

Appendix F (cont'd)

Expert Panel Content Validation Form

Instructions: The items listed below are designed to measure the construct of *differentiation of self* in three distinct cultural contexts; *individualistic*, *collectivistic*, and *transcultural*. To help us learn how well each item fits within the assigned cultural context, please read each cultural context definition for each group of items as well as the definition of differentiation of self, then circle the number showing how well you think each item matches the definition using the rating scale provided. “1 = Fits” and “2 = Needs improvement.” If “2” is selected, please describe your suggested improvements for the specific item. Please note that some items, as indicated by “R,” will be reverse scored and thus indicate a lack of differentiation within the corresponding cultural contexts. Please review the following criteria before rating each item.

Criteria for items that *Fit* for normally scored items:

1. Item should represent definition of differentiation of self
2. Item should represent definition of cultural context

Example: Item number “4” in Group 3 (transcultural context) is a normally scored item and should fit with both the definition of differentiation of self and transcultural context.

Breakdown of example:

Item: I am accepting of multiple cultural influences on my identity.

Fulfillment of criteria 1: I am *accepting* of...

Fulfillment of criteria 2: ...*multiple cultural influences* on my identity.

Criteria for items that *Fit* for reverse scored items:

1. Item should represent a lack of the definition of differentiation of self
2. Item should represent definition of cultural context

Example: Item number “1. R.” in Group 1 (individualistic context) is reverse scored (*R*) and therefore should represent a lack of definition of differentiation of self but should represent the definition of the individualistic context.

Breakdown of example:

Item: I am upset for days when other say or do something to hurt me.

Fulfillment of criteria 1: I am *upset* for days when...

Fulfillment of criteria 2: ...others say or do something to hurt *me*.

Rating scale: 1 = *Fits* or 2 = *Needs improvement: (please describe your suggested improvement)*

Differentiation of self in an individualistic context

✦ **Definition of differentiation of self:** “the ability to think and reflect, to not automatically respond to internal and external emotional stimuli...during periods of high anxiety” (Bowen & Kerr, 1988, p. 94). A person “with the ability and motivation can, through a gradual process of learning that is converted into action [differentiation], become more of a self in his family and other relationship systems” (Bowen & Kerr, 1988, p. 107).

✦ **Individualistic cultural context:** This context is defined as “a social pattern that consists of loosely linked individuals who view themselves as independent of collectives; are primarily motivated by their own preferences, needs, rights, and the contracts they have established with others; give priority to their personal goals over the goals of others; and emphasize rational analyses of the advantages and disadvantages of associating with others” (Triandis, 1995, p. 2).

1. R. I am *upset for days* when others say or do something to hurt *me*.
1 2:
2. R. I *need* others to *make me* feel like I belong.
1 2:
3. I am *empowered to advocate* for *myself*.
1 2:
4. R. I *reject* the advice of others.
1 2:

Appendix F (cont'd)

Expert Panel Content Validation Form

5. *R. I worry about people invading my privacy.*
1 2:
6. *R. I ignore what others tell me to do.*
1 2:
7. *R. I cut off relationships when they no longer serve me.*
1 2:
8. *I understand that I may disappoint myself.*
1 2:
9. *I set boundaries with others when I believe they have acted inappropriately towards me.*
1 2:
10. *I respond to my triggers thoughtfully on my own rather than immediately reacting to them.*
1 2:
11. *R. I engage in conflict with others about issues that effect me.*
1 2:
12. *I make decisions based on my own thinking.*
1 2:

Differentiation of self in a collectivistic context

✦ **Definition of differentiation of self:** “the ability to think and reflect, to not automatically respond to internal and external emotional stimuli...during periods of high anxiety” (Bowen & Kerr, 1988, p. 94). A person “with the ability and motivation can, through a gradual process of learning that is converted into action [differentiation], become more of a self in his family and other relationship systems” (Bowen & Kerr, 1988, p. 107).

✦ **Collectivistic cultural context:** This context is defined as “a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, co-workers, tribe, nation); are primarily motivated by the norms of, and duties imposed by, those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives” (Triandis, 1995, p. 2).

1. *My community's thoughts and feelings are deeply important to me.*
1 2:
2. *I make decisions after talking with my community.*
1 2:
3. *R. I cut off relationships when they no longer serve my community.*
1 2:
4. *I am empowered to advocate for my community.*
1 2:
5. *R. I engage in conflict with others about issues that effect my community.*
1 2:
6. *I am able to set boundaries with others when I believe they have acted inappropriately towards my community.*
1 2:
7. *R. I am upset for days when others say or do something to hurt my community.*
1 2:
8. *R. I do what my community tells me to do.*
1 2:
9. *I understand that I may disappoint my community.*
1 2:
10. *R. I accept the advice of my community.*
1 2:
11. *R. I worry about my community being too distant from me.*
1 2:
12. *I respond to stressful situations by consulting with my community.*
1 2:

Appendix F (cont'd)

Expert Panel Content Validation Form

Differentiation of self in a transcultural context

✦ **Definition of differentiation of self:** “the ability to think and reflect, to not automatically respond to internal and external emotional stimuli...during periods of high anxiety” (Bowen & Kerr, 1988, p. 94). A person “with the ability and motivation can, through a gradual process of learning that is converted into action [differentiation], become more of a self in his family and other relationship systems” (Bowen & Kerr, 1988, p. 107).

✦ **Transcultural context:** This context is defined as “a perspective through which to address attachments across various cultures. Much as transnationalism casts light on notions of migration and the boundedness of social spaces, so transculturalism reveals the cultural boundedness of other concepts such as multiculturalism or assimilation...unlike multiculturalism and acculturation, transculturalism refers to the symmetric merging of elements from different cultures” (Richter & Nollert, 2014).

1. I am able to *set boundaries* with others when I believe they have acted inappropriately towards *me and my community*.

1 2:

2. I *understand* that I may disappoint *myself and others*.

1 2:

3. *R.* I *cut off* relationships when they no longer serve *me and my community*.

1 2:

4. I am *accepting* of *multiple cultural influences* on my identity.

1 2:

5. *R.* I *engage in conflict* with others about issues that effect *myself and my community*.

1 2:

6. *R.* I am *anxious* about being *pulled* between *two different cultural expectations*.

1 2:

7. I *appreciate* my *own advice* and the *advice of others*.

1 2:

8. I am *empowered to advocate* for *myself and my community*.

1 2:

9. I *make decisions* based on both *my own thinking and consulting with others*.

1 2:

10. *R.* I *worry* about *fitting into one particular culture*.

1 2:

11. *R.* I am *upset for days* when others say or do something to hurt *me and my community*.

1 2:

Follow up questions for Expert Panelist:

1. Did the italicized terms on the items help distinguish the following: differentiation of self, a lack of differentiation of self, and respective cultural contexts? **Yes**____ **No**____
2. Do you have any additional suggestions or feedback? If so, please explain below.

Additional Suggestions or feedback:

Appendix G

Expert Panel Rating and Feedback for Individualistic Culture

Item	Expert No.: Rating	Feedback Description	Outcome
1. <i>R. I am upset for days when others say or do something to hurt me.</i>	2,5,6,8:1		Adjusted to: 1. <i>R. I am upset for longer than others when others hurt me</i>
	1:2	<i>Days</i> seems like an arbitrary length of time.... May not be an accurate indication of differentiation	
	2:	I am <i>upset for days</i> when others do something to hurt <i>me</i> ; avoid <i>or</i> in items -- want items to be specific statements	
	3:	Left blank	
	4:	These items generally look fine.	
2. <i>R. I need others to make me feel like I belong.</i>	7:2	Perhaps, I am <i>immediately</i> upset...	Remained same: 4. <i>R. I need others to make me feel like I belong</i>
	1,2,5,6,7,8:1		
	2:		
	3:	Left blank	
	4:	These items generally look fine.	
3. <i>I am empowered to advocate for myself.</i>	1,2,5,6,7,8:1		Remained same: 7. <i>I am empowered to advocate for myself</i>
	3:	Left blank	
	4:	These items generally look fine.	
4. <i>R. I reject the advice of others.</i>	2,6,8:1		Adjusted to: 13. <i>R. I automatically reject the advice of others</i>
	1:2	Decontextualized it may or may not be related to differentiation	
	3:	Left blank	
	4:	These items generally look fine.	
	5:2	Maybe: I feel free to reject the advice of others – as written, this could be interpreted as someone who is oppositional by nature Perhaps, “I don’t feel the need to seek the advice...”	
5. <i>R. I worry about people invading my privacy.</i>	7:2		Remained same: 21. <i>R. I worry about people invading my privacy</i>
	1,2,5,6,7,8:1		
	3:	Left blank	
6. <i>R. I ignore what others tell me to do.</i>	4:	These items generally look fine.	Adjusted to: 18. <i>R. I automatically ignore what others tell me to do</i>
	2,5,6,7,8:1		
	1:2	See item #4	
7. <i>R. I cut off relationships when they no longer serve me.</i>	3:	Left blank	Adjusted to: 15. <i>R. I discontinue relationships when they no longer serve me</i>
	4:	These items generally look fine.	
	1:	Maybe: I discontinue relationships when they no longer serve me.	
8. <i>I understand that I may disappoint myself.</i>	3:	Left blank	Remained same: 24. <i>I understand that I may disappoint myself</i>
	4:	These items generally look fine.	
	7:2	I am not sure what you mean to imply; not sure if it correctly distinguishes	
	1,2,5,6,8:1		

Appendix G (cont'd)

Expert Panel Rating and Feedback for Individualistic Culture

Item	Expert No.: Rating	Feedback Description	Outcome
9. I <i>set boundaries</i> with others when I believe they have acted inappropriately towards <i>me</i> .	1,2,5,6,8:1 3: 4: 7:2	Left blank These items generally look fine. I am not sure what you mean to imply; not sure if it correctly distinguishes individualism.	Remained same: 29. I set boundaries with others when I believe they have acted inappropriately towards me
10. I <i>respond</i> to my triggers <i>thoughtfully</i> on <i>my own</i> rather than immediately reacting to them.	1,2,5,6,7,8:1 3: 4:	Left blank These items generally look fine.	Remained same: 32. I respond to my triggers thoughtfully on my own rather than immediately reacting to them
11. <i>R. I engage in conflict</i> with others about issues that effect <i>me</i> .	1,2,5,6,7,8:1 2: 3: 4:	<i>I engage in conflict</i> with others about issues that affect <i>me</i> Left blank These items generally look fine.	Remained same: 34. <i>R. I engage in conflict</i> with others about issues that are important to me
12. I make decisions based on <i>my own thinking</i> .	1,2,5,6,7,8:1 3: 4:	Left blank These items generally look fine.	Remained same: 27. I make decisions based on my own thinking

Appendix H

Expert Panel Rating and Feedback for Collectivistic Culture

Item	Expert No.: Rating	Feedback Description	Outcome
1. <i>My community's thoughts and feelings are deeply important to me.</i>	1,2,5,6,7,8:1		Adjusted to:
	2:	<i>My community's feelings are deeply important to me; this item is a double item (thoughts & feelings) -- only want one of them</i>	2. My community's thoughts are deeply important to me
	3:	Left blank	
	4:2	Communities don't have thoughts and feelings...people do	5. My community's feelings are deeply important to me
2. <i>I make decisions after talking with my community.</i>	1,2,5,6,7:1		Remained same:
	3:	Left blank	8. I make decisions after talking with my community
	4:	Left blank	
	8:2	Talking with.....people (?) in my community	
3. <i>R. I cut off relationships when they no longer serve my community.</i>	1,2,5,6,7,8:1		Adjusted to:
	2:	I discontinue relationships when they no longer serve <i>my community</i>	11. <i>R. I discontinue relationships when they no longer serve my community</i>
	3:	Left blank	
	4:	Who is community?	
4. <i>I am empowered to advocate for my community.</i>	1,2,4,5,6,7,8		Remained same:
	:1	Left blank	22. I am empowered to advocate for my community
	3:		
5. <i>R. I engage in conflict with others about issues that effect my community.</i>	1,2,4,5,6,7:1		Remained same:
	2:	<i>I engage in conflict with others about issues that influence my community</i>	19. <i>R. I engage in conflict with others about issues that are important to my community</i>
	3:	Left blank	
	4:	<i>I engage in conflict with others about issues that effect my community; This should be affect</i>	
	8:2	<i>Affect</i>	
6. <i>I am able to set boundaries with others when I believe they have acted inappropriately towards my community.</i>	1,2,5,6,7,8:1		Remained same:
	3:	Left blank	16. I am able to set boundaries with others when I believe they have acted inappropriately towards my community
	4:2	This item doesn't make sense to me.	
7. <i>R. I am upset for days when others say or do something to hurt my community.</i>	2,4,5,6,7:1		Adjusted to:
	1:2	<i>Again for days</i> seems to be measuring duration of reaction as it relates to differentiation	25. <i>R. I am upset for longer than others when others hurt my community</i>
	2:	I am <i>upset for days</i> when others do something to hurt <i>my community</i> ; double item again -- say and do are two different things -- pick one"	
	3:	Left blank	
	8:2	...to hurt people in my community	

Appendix H

Expert Panel Rating and Feedback for Collectivistic Culture

Item	Expert No.: Rating	Feedback Description	Outcome
8. <i>R. I do what my community tells me to do.</i>	2,4,5,6,7 1:2 3: 8:2	How is <i>tells</i> conceptualized (implicitly/explicitly)? Left blank I do what my community expects me to do	Adjusted to: 30. <i>R. I do what my community expects me to do</i>
9. <i>I understand that I may disappoint my community.</i>	1,2,4,5,6,7:1 3: 8:2	Left blank ...specific people in my community	Remained same: 33. <i>I understand that I may disappoint my community</i>
10. <i>R. I accept the advice of my community.</i>	2,5,6,7:1 1:2 3: 4:2 8:2	Uncertain how community advises.... Left blank I had a reaction to this on the first set of items....it can be demonstrating a differentiated stance to accept the advice of others, as long as it is done on the basis of thought rather than fusion or emotional reactivity." ...the advice of.....in my community"	Adjusted to: 35. <i>R. I automatically accept the advice of my community</i>
11. <i>R. I worry about my community being too distant from me.</i>	2,5,6,7:1 1:2 3: 4: 8:2	Perhaps worry about individual being too distanced from community" Left blank Why not I worry about being too distant from my community?" [No specific feedback]	Adjusted to: 28. <i>R. I worry about being too distant from my community</i>
12. <i>I respond to stressful situations by consulting with my community.</i>	1,2,4,5,6,7:1 3: 8:2	Left blank With.....in my community"	Remained same: 9. <i>I respond to stressful situations by consulting with my community</i>

Appendix I

Expert Panel Rating and Feedback for Transcultural Culture

Item	Expert No.: Rating	Feedback Description	Outcome
1. I am able to <i>set boundaries</i> with others when I believe they have acted inappropriately towards <i>me and my community</i> .	1,2,5,6,7:1		Remained same: 3. I am able to set boundaries with others when I believe they have acted inappropriately towards me and my community
	2:	Double item again -- what if they act inappropriately to me, but not my community?	
	3:	Left blank	
	4:	Again, this one doesn't make sense to me.	
2. I <i>understand</i> that I may disappoint <i>myself and others</i> .	1,2,5,6,7:1		Remained same: 6. I understand that I may disappoint myself and others
	2:	How about if I disappoint myself and not others (double item again)?	
	3:	Left blank	
	4:	I am not certain that simply combining me and others captures a transcultural self. However, I find the definition above a bit muddy. At any rate, the me and others language seems to fuse individual and community, not elements from different cultures. See #4 below	
3. <i>R. I cut off</i> relationships when they no longer serve <i>me and my community</i> .	1,2,5,6,7:1		Adjusted to: 23. <i>R. I discontinue</i> relationships when they no longer serve me and my community
	2:	I <i>discontinue</i> relationships when they no longer serve <i>me and my community</i> ; same -- how would a participant respond if the relationship does not serve them any longer, but is fine for their community	
	3:	Left blank	
	4:	Left blank	
4. I am <i>accepting</i> of <i>multiple cultural influences</i> on my identity.	1,2,5,6,7:1		Remained same: 12. I am accepting of multiple cultural influences on my identity
	3:	Left blank	
	4:	This might be more like it.	
	8:	Left blank	
5. <i>R. I engage in conflict</i> with others about issues that effect <i>myself and my community</i> .	2,5,6,7:1		Adjusted to: 14. <i>R. I engage in conflict</i> with others about issues that are important to myself and my community
	1:2	Perhaps <i>effect myself and/or my community</i> (may address individuality and togetherness)	
	2:	I <i>engage in conflict</i> with others about issues that influence <i>myself and my community</i> ; double again	
	3:	Left blank	
6. <i>R. I am anxious</i> about being <i>pulled</i> between <i>two different cultural expectations</i> .	1,2,5,6,7:1		Remained same: 20. <i>R. I am anxious</i> about being pulled between two different cultural expectations
	3:	Left blank	
	4:	This is more like it.	
	8:	Left blank	

Appendix I (cont'd)

Expert Panel Rating and Feedback for Transcultural Culture

Item	Expert No.: Rating	Feedback Description	Outcome
7. I appreciate my own advice and the advice of others.	1,2,6,7:1		Remained the same: 17. I appreciate my own advice and the advice of others
	2:	Double item -- how would participants respond if they appreciate their own advice, but not the advice of others?	
	3:	Left blank	
	4:	Left blank	
	5:2	This wording seems a bit awkward, in that I'm not sure people give <i>advice</i> to themselves. Not sure how to re-word it, tho.	
8. I am empowered to advocate for myself and my community.	1,2,5,6,7:1		Remained same: 26. I am empowered to advocate for myself and my community
	2:	Same -- double	
	3:	Left blank	
	4:	Left blank	
	8:	Left blank	
9. I make decisions based on both my own thinking and consulting with others.	1,2,5,6,7:1		Remained same: 31. I make decisions based on both my own thinking and consulting with others
	2:	Double	
	3:	Left blank	
	4:	Left blank	
	8:	Left blank	
10. R. I worry about fitting into one particular culture.	1,2,5,6,7:1		Remained same: 10. R. I worry about fitting into one particular culture
	3:	Left blank	
	4:	(This is more like it...) and this one	
	8:	Left blank	
11. R. I am upset for days when others say or do something to hurt me and my community.	1,2,5,6,7:1		Adjusted to: 36. R. I am upset more than others when others hurt me and my community
	1:	Once again <i>days</i> seems arbitrary length of time and may or may not be an indicator of differentiation	
	2:	I am <i>upset for days</i> when others say something to hurt me and my community	
	3:	Left blank	
	4:	Left blank	
	8:	Left blank	

Appendix J

Multicultural Differentiation of Self Inventory (MDSI)

Using the Likert scale, please rate each of the statements below that best reflects you:

- | | |
|---------------------------------|-------------------------|
| 1 = Not at all true of me | 5 = Somewhat true of me |
| 2 = Not true of me | 6 = True of me |
| 3 = Not so true of me | 7 = Very true of me |
| 4 = Sometimes true/untrue of me | |

Item	Statement	Likert Scale
1.	I am upset for longer than others when others hurt me	1 2 3 4 5 6 7
2.	My community's thoughts are deeply important to me	1 2 3 4 5 6 7
3.	I am able to set boundaries with others when I believe they have acted inappropriately towards me and my community	1 2 3 4 5 6 7
4.	I need others to make me feel like I belong	1 2 3 4 5 6 7
5.	My community's feelings are deeply important to me	1 2 3 4 5 6 7
6.	I understand that I may disappoint myself and others	1 2 3 4 5 6 7
7.	I am empowered to advocate for myself	1 2 3 4 5 6 7
8.	I make decisions after talking with my community	1 2 3 4 5 6 7
9.	I respond to stressful situations by consulting with my community	1 2 3 4 5 6 7
10.	I worry about fitting into one particular culture	1 2 3 4 5 6 7
11.	I discontinue relationships when they no longer serve my community	1 2 3 4 5 6 7
12.	I am accepting of multiple cultural influences on my identity	1 2 3 4 5 6 7
13.	I automatically reject the advice of others	1 2 3 4 5 6 7
14.	I engage in conflict with others about issues that are important to myself and my community	1 2 3 4 5 6 7
15.	I discontinue relationships when they no longer serve me	1 2 3 4 5 6 7
16.	I am able to set boundaries with others when I believe they have acted inappropriately towards my community	1 2 3 4 5 6 7
17.	I appreciate my own advice and the advice of others	1 2 3 4 5 6 7

Appendix J (cont'd)

Multicultural Differentiation of Self Inventory (MDSI)

Item	Statement	Likert Scale
18.	I automatically ignore what others tell me to do	1 2 3 4 5 6 7
19.	I engage in conflict with others about issues that are important to my community	1 2 3 4 5 6 7
20.	I am anxious about being pulled between two different cultural expectations	1 2 3 4 5 6 7
21.	I worry about people invading my privacy	1 2 3 4 5 6 7
22.	I am empowered to advocate for my community	1 2 3 4 5 6 7
23.	I discontinue relationships when they no longer serve me and my community	1 2 3 4 5 6 7
24.	I understand that I may disappoint myself	1 2 3 4 5 6 7
25.	I am upset for longer than others when others hurt my community	1 2 3 4 5 6 7
26.	I am empowered to advocate for myself and my community	1 2 3 4 5 6 7
27.	I make decisions based on my own thinking	1 2 3 4 5 6 7
28.	I worry about being too distant from my community	1 2 3 4 5 6 7
29.	I set boundaries with others when I believe they have acted inappropriately towards me	1 2 3 4 5 6 7
30.	I do what my community expects me to do	1 2 3 4 5 6 7
31.	I make decisions based on both my own thinking and consulting with others	1 2 3 4 5 6 7
32.	I respond to my triggers thoughtfully on my own rather than immediately reacting to them	1 2 3 4 5 6 7
33.	I understand that I may disappoint my community	1 2 3 4 5 6 7
34.	I engage in conflict with others about issues that are important to me	1 2 3 4 5 6 7
35.	I automatically accept the advice of my community	1 2 3 4 5 6 7
36.	I am upset more than others when others hurt me and my community	1 2 3 4 5 6 7

End of inventory.

Vita

Nasima Rahman Khan was born in London, United Kingdom, where she was raised alongside 6 siblings by her parents, Rabia Khatun Rahman and Hajji Mohammed Harun Miah (Abdur Rahman), who immigrated from Sylhet, Bangladesh in 1968. In 2010, she graduated with a Bachelor of Arts degree in the Study of Religion from the School of Oriental and African Studies (SOAS), University of London. After extensive travel, she and her husband settled in New Orleans where in 2015 she completed a Master of Science degree in Counseling at Loyola University New Orleans. Nasima is currently a Licensed Professional Counselor (LPC) in the state of Louisiana and a National Certified Counselor (NCC) who has experience working within the medical model in a behavioral health hospital and the wellness model at a community mental health agency. She currently sees clients at her private counseling practice and plans to pursue tenure-track professorship in counselor education. Nasima's research interest is linked to her clinical focus. Her psychotherapeutic approach is rooted in Bowen's family systems theory, with the integration of person-centered therapy, as well as multicultural and social justice frameworks. Nasima specializes in client issues related to interpersonal and relationship dynamics, alongside an array of clinical diagnoses in multiple modalities, including family, couples, and individual counseling with people of varied age and intersectional backgrounds.