

CULTURAL ADAPTATION AND PRELIMINARY VALIDATION
OF A MEASURE OF GRIEF FOR AMERICAN INDIAN
AND ALASKA NATIVE POPULATIONS

by

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DEDICATION

I dedicate this paper to my friends, family, mentors, and community partners who supported me throughout this project.

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ABSTRACT

Grief research among American Indian and Alaska Native (AI/AN) people has been limited to studies focused on unresolved grief associated with historical trauma or epidemiological studies focused on reporting mortality rates among AI/AN people. Grief measures developed and tested in non-Native populations have not been validated for use with AI/ANs and may not reflect a culturally appropriate Native perspective on grief. Additionally, research on adaptive grieving, or how people grow while healing from grief, has not been studied in this population. The current study aimed to: 1) work with AI/AN community members to culturally adapt the Inventory of Complicated Grief and the Posttraumatic Growth Inventory, and 2) test the psychometric properties of the resulting culturally adapted Indigenous Grief Inventory. In Study One, interviews were conducted with AI reservation-based community members ($N = 12$) to gain insight into Native perspectives on grief. Findings suggested unique cultural considerations related to grieving and healing following the loss of a loved one in Native communities. Some items were revised and new items were developed based on participant feedback, and a pool of 60 items was generated for further testing. In Study Two, a sample of AI/AN community members ($n = 10$) and academics ($n = 7$) was recruited to provide feedback on the measure items adapted or developed in Study One. Based on participants' ratings and feedback, items with low cultural appropriateness and comprehension scores were removed, and other items were revised, leaving 45 items remaining for psychometric testing. In Study Three, a web-based survey including the culturally adapted Indigenous Grief Inventory and mental and behavioral health measures was administered to 600 AI/AN people who reported experiencing a significant loss in their lifetime. Exploratory and confirmatory factor analyses using separate randomly selected samples from the survey data ($ns = 300$) were conducted to identify the factor structure of the culturally adapted measure. Items were trimmed following these analyses, resulting in a two-factor Indigenous Grief Inventory. Additional analyses were conducted to examine the convergent and discriminant validity and measurement invariance of the revised measure. Findings suggest that the final 26-item Indigenous Grief Inventory developed in this dissertation is valid, reliable, and suitable for use in health research with AI/AN people.

CHAPTER ONE

INTRODUCTION

The loss of a loved one is a universal human experience with wide-reaching impacts on an individual's mental and physical health. The term *bereavement* refers to the experience of loss, while the term *grief* refers to the emotional, psychological, behavioral, social, and physical reactions people experience because of the death of someone close to them (Boerner et al., 2016). Perceptions of death and grieving are shaped by cultural norms, religious and spiritual practices, and personal experiences of loss (Cable, 1998; Clarke et al., 2003; Mantala-Bozos, 2003; Rubin & Yasien-Esmael, 2004). A person's reaction to death can also be influenced by their relationship with the deceased and how they died (e.g., sudden death or prolonged illness). While experiences with grief may differ from person to person, a review of common reactions to loss found that people typically experience some form of affective, behavioral, cognitive, psychological, and somatic symptoms during the grieving process (Stroebe et al., 2004).

Complicated Grief

Experiences with grief differ based on numerous factors, such as relationship with the deceased, cause of death, cultural beliefs, and other factors. Research suggests that traumatic loss, in particular, may put people at greater risk of experiencing an abnormal grieving process or developing Posttraumatic Stress Disorder (PTSD; Stewart, 1999). Traumatic grief has been referred to as Complicated Grief, Complicated Grief Disorder, and Prolonged Grief Disorder interchangeably in the literature. Generally, all of these terms refer to maladaptive grief

symptoms that are different from both typical grief and clinical PTSD, anxiety, and depression symptoms. Complicated grief represents a deviation from cultural and societal norms for grieving in either length or intensity of the symptoms experienced (Jacobs et al., 2000; Lichtenthal et al., 2004; Prigerson & Jacobs, 2001). Studies have found that complicated grief symptoms fall into two categories—separation distress and traumatic distress symptoms (Prigerson & Jacobs, 2009). A meta-analysis on the development of traumatic grief disorders found that across studies, about 1 in 10 adults are at risk of developing clinically significant complicated grief symptoms after experiencing a traumatic or considerable loss (Lundorff et al., 2017).

The inclusion of an official diagnosis of a traumatic grief disorder, or Persistent Complex Bereavement Disorder (PCBD), has been added as a “condition for further study” in the fifth edition of the American Psychiatric Association’s Diagnostic and Statistical Manual (DSM-5; American Psychiatric Association [APA], 2013). The proposed PCBD diagnosis is conceptualized as a disabling grief reaction that impairs an individual's ability to function normally or accomplish daily tasks. Typical grief-related symptoms differ from PCBD in the time, severity, and level of distress associated with the intense emotional reaction to another person's death (Shear et al., 2011). Approximately 7%-15% of bereaved individuals in the United States meet the proposed criteria for a PCBD diagnosis after experiencing a significant loss (Shear et al., 2011).

The PCBD diagnostic criteria represent a distinct set of symptoms associated with distress and dysfunction for recently bereaved people. Symptoms of PCBD include: a) intense sadness or distress that does not improve as time passes, b) continual yearning for the deceased

person, c) digestive issues, d) continually ruminating on the death, e) emptiness, f) inability to perform daily activities, g) loss of interest in hobbies, h) fatigue, i) hallucinations of the deceased, j) loneliness, and k) suicidal ideation (APA, 2013). To meet diagnostic criteria for PCBD, an individual must have: 1) experienced the death of a loved one; 2) experienced one of four symptoms related to yearning, longing, and sorrow; 3) exhibited 6 of the 12 symptoms related to social and identity disruption; 4) experienced clinically impairing distress, and 5) had grief-related impairment that lies outside of sociocultural norms (APA, 2013). Individuals must have experienced these symptoms without improvement for six to 12 months after the death of someone close to them (APA, 2013). While there is no specific known cause of PCBD, high stress, low social support, trauma, repeated loss, being female, and serving as a caregiver are factors that increase the risk of developing PCBD (APA, 2013).

Adaptive Grief

While grief research has focused on the negative aspects of grief and their association with mental illness and physical health problems, research has shifted to include adaptive grieving elements. An adaptive outcome of grief is defined as a positive outcome experienced as a result of the grieving process, such as personal growth, spiritual growth or change, improved and more satisfying relationships, greater maturity, changed philosophy of life, and a positive influence on life goals (Gamino et al., 2000; Parker, 2005). Studies examining predictors of adaptive grieving have found that people who have a strong social support network comprised of friends, family, and community members have a greater opportunity to rely on others for social support during the grieving process. The utilization of social support and adaptive coping

strategies are linked to better grief outcomes and, for some people, positive personal growth in response to loss (Lauer et al., 1985; Martinson et al., 1991).

Multidimensional Grief Theory

The multidimensional grief theory (MGT) posits that the grieving process includes adaptive and maladaptive responses to death (Pynoos et al. 1995; Kaplow et al., 2013). The MGT theory includes three grief-related distress reactions: 1) separation distress, 2) existential/identity distress, and 3) circumstance-related distress. Separation distress typically manifests as feelings of yearning and longing for the recently deceased, and these feelings can become maladaptive when people contemplate suicide to join the deceased person (Pynoos et al. 1995; Kaplow et al., 2013). People experience existential/identity distress following a death by questioning their life's meaning or reconsidering their life plans. This could also include coming to terms with changing responsibilities in a family or friend group because of the loss. This process can become maladaptive if people perceive they have lost an important part of themselves or feel extreme hopelessness when they imagine the future without the recently deceased person (Pynoos et al. 1995; Kaplow et al., 2013). The final domain of grief reaction according to MGT is circumstance-related distress, or a fixation on how a person died. Circumstance-related distress can be adaptive if people use this distress to advocate for organizations supporting research or advocacy for whatever caused the death (e.g., cancer research, gun violence). This reaction can become maladaptive if thoughts of death impair one's daily functioning (Pynoos et al. 1995; Kaplow et al., 2013). The MGT theory suggests that it is typical for people to experience grief in all three domains; it is the severity and length of the

distress experienced that determines whether grief is adaptive or maladaptive. However, what is considered normal varies between cultural groups, so what may be considered maladaptive in one culture may not be viewed the same way in another.

Health Consequences of Grief

Grief can affect both physical and mental health for recently bereaved people. A review of bereavement-associated health problems found higher rates of reported medication use, hospitalization, chronic pain, and chronic illness for people experiencing complicated grief symptoms (Kristensen et al., 2012; Stroebe et al., 2007). People who experience a traumatic loss are also more likely to report greater mental health problems associated with depression, PTSD, insomnia, suicidal ideation, and drug and alcohol use (Kristensen et al., 2012; Stroebe et al., 2007). Additionally, a study conducted in Spain found that people with current substance use disorders (SUDs) were more likely to express prolonged, complicated grief symptoms than those without a SUD (34.2% vs. 5%; Masferrer et al., 2017a/b).

Demographic Differences in Grief

Religion and Spirituality

Relying on religious or spiritual practices is a common coping strategy for recently bereaved people (Hawthorne et al., 2016; Matthews & Marwit, 2006; Pargament et al., 1988). Involvement in religious or spiritual practices can help give context to death by creating a narrative around the lost person's life and what will happen to them in the afterlife (Hawthorne et al., 2016; Matthews & Marwit, 2006; Pargament et al., 1988). Religious and spiritual services

have multifaceted benefits, as they increase access to social support and offer concrete values and beliefs, which help people make meaning of life and death (Becker et al., 2007; Higgins, 2002; Wortmann & Park, 2008). Research suggests that interventions targeted explicitly at finding meaning in life following a loss can foster a more adaptive grieving process for recently bereaved people (Neimeyer & Thompson, 2014).

Gender

Studies on the relationship between gender and grief found that women were more likely to be intuitive grievers (i.e., expressing emotions, seeking help). In contrast, men were more likely to be instrumental grievers (i.e., suppressing emotions, directing feelings into actions) (Martin & Doka, 2000). Gender differences in grief expression are influenced by gendered aspects of socialization in early life regarding emotion expression, and Western stereotypes about masculinity can limit the ways men express grief-related emotions (Martin & Doka, 2000). For example, it is seen as more acceptable for women to freely cry and express feelings of sadness and helplessness related to a loss (Lawson et al., 2006). Men are expected to remain stoic in public when experiencing a loss, and if they express emotions, it is deemed more acceptable for men to express anger as opposed to sadness (Martin & Doka, 2000). The differences in grief expression across gender suggest that while women may report more symptoms congruent with a diagnosis of PCBD, men could still experience these symptoms at a debilitating level and not express them as openly as women.

Ethnicity

In the field of grief research, few studies have focused on examining cross-cultural differences in the grieving process (Baydala et al., 2006; Kaufert et al., 1999; Putsch, 1988; Stone, 1998; Stroebe et al., 2004). In a study conducted in the U.K. with Black Caribbean and White recently bereaved people, no difference on a measure of grief-related symptoms was found between groups. However, Black Caribbean participants had higher anxiety and depression symptoms and expressed more financial concerns resulting from the loss of a family member than Whites (Koffman et al., 2005).

Research conducted in the U.S. found that African American people had a greater likelihood of experiencing traumatic grief symptoms compared to White populations (Laurie & Neimeyer, 2008). This may be attributed to the fact that African American individuals have a shorter life expectancy, greater likelihood of experiencing a traumatic death, and less access to mental health services (Laurie & Neimeyer, 2008). Additionally, research suggests that the experience of traumatic grief is associated with racial oppression and discrimination experienced by African American people (Laurie & Neimeyer, 2008). Finally, a study conducted with Latino/a individuals found greater expression of intense grief and greater somatic symptoms following the loss of a loved one than other ethnic groups (Clements et al., 2003).

Grief in Native Populations

The average life expectancy for AI/AN people in the U.S. is 73 years, which is 5.5 years shorter than the life expectancy of non-Native U.S. populations (78.5 years; Indian Health Services [IHS], 2018). In Montana, there is a greater discrepancy in life expectancy for AI/AN

people, as they are expected to live about 20 years less than their White counterparts (Department of Public Health and Human Services [DPHHS], 2013). It is estimated that AI/AN people experience 1 to 2 significant losses in a given year, compared to 1 to 2 deaths every ten years in non-Native populations (Dankovchik et al., 2015). High mortality rates among AI/ANs are attributed to high rates of suicide, fatal accidents, alcohol-induced illnesses, and other chronic illnesses (IHS, 2018). Taken together, these findings show that AI/AN people disproportionately experience death in their lifetime, and research is needed to understand cultural practices surrounding death and the grieving process in this population.

A collectivist cultural orientation is common in AI/AN communities. Native people have a long history of providing for and taking care of each other, which has led to close kinship-based relationships in communities (Mohatt et al., 2004 a/b). Kinship-based relationships expand the bounds of familial relationships from those based on biological connections to include communal and cultural ties. Having a wider social network of family members can increase access to social support in times of distress (Roh et al., 2015; Stumblingbear-Riddle et al., 2012). However, being related to more people also increases the likelihood of experiencing more frequent losses throughout one's life. Given the close-knit relationships common in AI/AN reservation communities, grief associated with the loss of an individual outside of a person's biological family can have wide-reaching impacts across the entire community (Skewes et al., 2020). In Native communities, grief is often experienced collectively.

While studies of death among AI/AN people have primarily focused on examining health disparities (e.g., substance use and mental health problems) and causes of death (e.g., suicide), few studies have explored culturally specific aspects of the grieving process. In one qualitative

study conducted with Lakota tribal members, participants considered grieving practices that focused on connecting people to family and community to be the most beneficial in resolving grief (Stone, 1998). This study found that spirituality was an essential component of grieving, and people reported preferring either traditional cultural grieving practices or more Christian religious practices depending on their level of cultural connection (Stone, 1998). Another qualitative study conducted with a sample of AI adults found that participants viewed Native spiritual beliefs and traditional cultural practices as an important aspect of coping with grief (Shunkamolah, 2009). Respondents reported that the loss of any loved one was a life-changing event, but the death of a tribal Elder had an additional impact on the entire community (Shunkamolah, 2009). Specifically, the loss of a tribal Elder represents a unique loss of cultural knowledge and support for the whole tribal community (Shunkamolah, 2009). Despite these qualitative findings, there have been no published research studies on grief using validated quantitative instruments with AI/AN participants (Dennis & Washington, 2018).

Historical Trauma and Unresolved Grief

In addition to grief from recent losses, research suggests that AI/AN people are also affected by previous generations' unresolved grief. Historical trauma, or the cumulative emotional and psychological effects of mass trauma experienced across generations, is thought to cause this unresolved collective grief (Brave Heart & DeBruyn, 1998; Duran & Duran, 1995; Evans-Campbell, 2008; Whitbeck et al., 2004a). Research on the intergenerational transmission of historical trauma symptoms initially focused on survivors of the Holocaust and their descendants (Kestenberg, 1980; Yehuda et al., 1995). Studies found that descendants of Holocaust survivors reported higher rates of anxiety and depression than those whose parents

had not lived through the Holocaust. Greater anxiety and depressive symptoms in parents may negatively impact parenting skills and affect the mental and physical health of offspring (Kestenberg, 1972; Yehuda et al., 1995). Disruptions in parenting are thought to facilitate the development of mental health symptoms (e.g., depression and anxiety) in survivors' descendants who did not experience the Holocaust firsthand. The intergenerational transmission of trauma also is believed to occur through biological (epigenetic) mechanisms (Yehuda & Lehrner, 2018).

Similar to the experience of Holocaust survivors, AI/AN people have been impacted by government-sanctioned genocide policies spanning many generations. One of the biggest causes of wide-reaching historical trauma was the removal of AI/AN children from their families and forced attendance at government-operated boarding schools designed to eradicate Native culture (Bombay et al., 2014; Brave Heart & DeBruyn, 1998; Jacobs, 2006). In boarding schools, children were separated from their families, physically and mentally abused, and not allowed to take part in traditional cultural practices or speak their Native languages (Brave Heart & DeBruyn, 1998; Jacobs, 2006). It is theorized that these historically traumatic events can cause a historical trauma response in descendants of victimized groups, which includes symptoms such as experiences of survivors' guilt, unresolved grief, anger, and psychic numbing (Duran et al., 1998; Kestenberg, 1982), as well as mental health problems including substance use disorders and suicide. If historical trauma is not addressed, these symptoms can be transmitted intergenerationally (Brave Heart, 1998; Evans-Campbell, 2008; Walls & Whitbeck, 2012). In one intervention study designed to treat historical trauma symptoms, Lakota people reported high rates of anger, grief, and depression associated with unresolved historical grief (Brave Heart,

1999a/b). Once participants were taught traditional grieving practices and connected with other people from their community, they reported a reduction in historical trauma symptoms.

Measures of Grief

There are numerous measures of grief—in fact, a review of bereavement risk assessments found 70 grief measures published between 1982 and 2014 (Sealey et al., 2015). While these scales measure grief-related symptoms in many domains (e.g., caregiver loss, loss of a child, loss of a spouse, traumatic loss) and across different ethnic/racial groups, little work has been conducted with AI/AN people. Because grieving is influenced by cultural factors (Clements et al., 2003; Koffman et al., 2005; Laurie & Neimeyer, 2008), grief measures developed with specific AI/AN cultural considerations may elicit different responses compared to measures designed with non-Native populations. Understanding cultural aspects of grieving among Native people could improve the measurement of grief symptoms and allow for more valid and reliable assessments of the impact of grief in Native communities.

A culturally appropriate and valid measure of grief for AI/AN populations is needed. Therefore, this dissertation aimed to culturally adapt the Inventory of Complicated Grief (ICG; Prigerson et al., 1995) to increase its cultural fit and usefulness for AI/AN health disparities research. The ICG is a 19-item grief inventory that assesses symptoms of complicated grief. Participants are asked to indicate how frequently they experience complicated grief symptoms associated with the death of a significant person from 0 (*never*) to 4 (*always*). Items are summed to yield a total complicated grief symptoms score. An analysis of the underlying factor structure found only one factor of complicated grief in the original measure. Studies using the ICG have

found that complicated grief symptoms predicted avoidant emotional coping (Schnider et al., 2007), greater risk of experiencing insomnia or chronic nightmares (Hardison & Neimeyer, 2005), more substance use problems (Masferrer et al., 2017a/b), and greater risk of experiencing suicidal ideation (Mitchelle et al., 2004). Although initially validated with a group of White widowers (Prigerson et al., 1995), the ICG has been adapted for use in Spain (Masferrer et al., 2017a/b) and Italy (Carmassi et al., 2014) in addition to being used with African American people living in the U.S. (Goldsmith et al., 2008; Laurie & Neimeyer, 2008).

Cultural Adaptation

Cultural adaptation is defined as the systematic modification of existing research tools to align with cultural values, traditions, and language for a specific ethnic/racial group (Bernal et al., 2009; Sue & Sue, 2003). When people from diverse cultural backgrounds answer items on a questionnaire, they can misunderstand the question's intended meaning if it is incongruent with their cultural perspective (Sidani et al., 2010; Warnecke et al., 1997). An example of this is an item that used the term “feeling blue” as an indication of depression on an assessment tool. Researchers found that the color blue in Latin American cultures symbolized feelings of joy instead of feelings of depression (Streiner et al., 2016). Cultural differences in quantitative assessments can potentially bias data from culturally diverse populations and diminish the reliability and validity of measurement tools (Banville et al., 2000; Yam et al., 2005), affecting the quality of research conclusions.

There are no set procedures for adapting measures across cultures, and the majority of existing guidelines address translating measures from English into another language (Johnson,

2006). Recently, researchers have suggested using a community-based participatory research (CBPR) approach to measure adaptation studies to ensure measures are not only correctly translated but also reflect cultural context and values (Baker et al., 2010; Gonzalez & Trickett, 2014). A CBPR approach to measure development follows the central tenants of other CBPR-informed projects—that is, community members are equitably involved in developing the research question, selecting or developing study materials and methods, and interpreting study findings (Baker et al., 2010; Gonzalez & Trickett, 2014). Using a CBPR framework, Baker and colleagues (2010) suggest using a six-step mixed-methods approach to measure adaptation. The types of cross-culture equivalence this adaptation process aims to achieve are: 1) conceptual equivalence, 2) semantic equivalence, 3) operational equivalence, 4) item equivalence, 5) measurement equivalence, and 6) functional equivalence (Baker et al., 2010).

The first two steps of the cultural adaptation process (i.e., conceptual and semantic equivalence) involve working with knowledgeable community members to determine whether the overall domain of study (e.g., grief) and measure items are conceptually similar across cultures (Baker et al., 2010; Herdman et al., 1998; Sidani et al., 2010). This process involves asking community members to review measure items and relevant research materials to evaluate their cultural appropriateness and make suggestions for changes to improve the cultural fit. Next, community members are asked to assess the administration format, instructions, and measurement methods (e.g., Likert scales) used in the non-adapted measure (i.e., operational equivalence) (Baker et al., 2010; Herdman et al., 1998; Sidani et al., 2010). This step ensures respondents will understand how to complete the culturally adapted measure. Adjustments are

made if people have difficulty understanding and answering measure items, as appropriate modifications could improve the quality of the data collected.

Once areas of possible cultural incongruency are identified, the next step is to test for item equivalence. Item equivalence aims to test the relevance and acceptability of measure items by using experts from the community to rate the content validity of each item (Baker et al., 2010; Sidani et al., 2010). This step in the cultural adaptation process allows researchers to systematically evaluate participants' understanding of study items and make changes or remove items based on low content validity scores (Baker et al., 2010; Sidani et al., 2010). The final two steps of the cultural adaptation process (i.e., measurement and functional equivalence) aim to statistically evaluate the culturally adapted measure's reliability and validity (Baker et al., 2010; Herdman et al., 1998; Sidani et al., 2010). Conducting statistical analyses on the adapted measure allows researchers to compare the adapted and original measure items to determine whether the same construct is being measured across cultures with the different measures.

Current Study

Although there are numerous measures of grief (Sealey et al., 2015), there has been little work done to assess grief in ethnic/racial minority groups (Baydala et al., 2006; Kaufert et al., 1999; Putsch, 1988; Stone, 1998). Moreover, research among AI/AN people has been limited to studies focused on unresolved grief associated with historical trauma, epidemiological studies reporting mortality rates for AI/AN people, and limited qualitative research to understand AI/AN grieving practices. No quantitative research has been published examining grief among AI/ANs using validated measures. Grief measures developed and tested in non-Native populations may

be culturally biased and may not adequately reflect Native experiences with grief. To enhance our understanding of grief in Native communities in a comprehensive and culturally appropriate manner, I aimed to develop a measure to assess grief that is informed by AI/AN cultural values. This was accomplished by: 1) working with AI/AN community members to understand cultural perspectives on grieving and elicit input on culturally adapting the ICG and PTGI items, and 2) testing the psychometric properties of the culturally adapted grief measure. The resulting Indigenous Grief Inventory may help researchers understand mental and physical health disparities associated with grief in AI/AN communities and may also be useful in clinical settings.

CHAPTER TWO

STUDY ONE: INTERVIEWS WITH AI COMMUNITY MEMBERS

To identify culturally specific components of grief among AI people who have experienced the loss of a close person, semi-structured interviews were conducted with 12 tribal members from a reservation community. Criteria for participation included being an AI person over the age of 18 who had experienced a significant loss of a close person.

MethodParticipants

Participants were 12 AI adults from a rural reservation community in Montana. Ages ranged from 32-80 years ($M = 54.33$, $SD = 14.46$) and included women ($n = 7$, 58.3%) and men ($n = 5$, 41.7%). Education attainment in this group was high, as participants reported having some college education ($n = 3$, 16.6%) or a college degree ($n = 9$, 75.1%).

Procedure and Interview Protocol

All study materials were approved by the university's Institutional Review Board (IRB) and tribal IRB before data collection. Funding for this study came from the advisor's existing research grant. A list of potential participants was generated through discussions with a community-based project coordinator, and email invitations were sent to prospective participants. Participants were invited to take part in one-on-one interviews, conducted through Zoom, about their perspectives on grief and loss. All participants were informed that the interviews would involve discussions about death and grieving and told that they should only

participate if they wanted to discuss these sensitive topics. The author conducted the semi-structured interviews under the supervision of her advisor, who has worked with AI/AN populations and has ongoing collaborations in this Native community (e.g., Skewes & Blume, 2019; Skewes et al., 2019; 2020).

Prior to each interview, participants received study materials by email, including copies of the measures being considered for adaptation (i.e., the Inventory of Complicated Grief [ICG; Prigerson et al., 1995] and the Posttraumatic Growth Inventory [PTGI; Tedeschi & Calhoun, 1996] as well as the diagnostic criteria for the proposed Persistent Complex Bereavement Disorder (PCBD) from the DSM-5 (APA, 2013). Participants reviewed an informed consent form and gave permission for video and audio recording of the discussions, which were later transcribed verbatim and deidentified by trained research assistants. Participants provided verbal consent for the interviews, which lasted approximately 1.5 hours ($M = 1$ hr 11 min, $SD = 19.86$ min). At the end of the interview, participants were debriefed and compensated with a \$35 gift card.

Background Questions. First, information about participants' demographics and a brief grief history were gathered (see Appendix A). Questions about prior experiences with loss were modeled on the Persistent Complex Bereavement Disorder Checklist-Youth Version (Kaplow et al., 2018). Some questions from the original grief experiences screening tool were included (e.g., "Has anyone you really cared about ever died?"), and new items were added to assess the extent of losses experienced by the participant (e.g., "How many important people have you lost in your lifetime?" and "How many funerals have you attended in the past year?"). Other items were revised to include responses reflecting adults' experiences, as the original tool was developed for

children. For example, regarding the participant's relationship to the deceased, we added "son or daughter" to the list provided.

Items from the Cultural Connectedness Scale-short version (CCS-S) were also included to characterize the sample. The CCS-S (Snowshoe et al., 2017) is a 10-item scale intended to measure three components of cultural connectedness (i.e., identity, traditions, and spirituality) among North American Indigenous populations. The original 29-item Cultural Connectedness Scale (CCS; Snowshoe, 2015) was developed through a community based-partnership with First Nations traditional Elders and has been used with First Nations adolescents (Snowshoe et al., 2015; Snowshoe et al., 2017). The CCS also has been used with tribal communities in the United States (King et al., 2019).

In the current study, five items from the CCS-S were used to assess participants' connection to their cultural identity (e.g., "When I am in need of guidance, I look to my Native culture for help"), traditional practices (e.g., "I have a traditional person, Elder, or Clan mother who I can talk to"), and connection to traditional Native spirituality (e.g., "In certain situations, I believe that things like animals and rocks have a spirit like Native people"). Three items had a dichotomous response scale of *yes* or *no*, and two used a 5-point Likert scale with response options ranging from *strongly disagree* to *strongly agree*. The five items were examined independently instead of calculating a total score, as the full CCS-S was not used in this study.

General Grief Questions. To gather information about cultural beliefs and practices around grief and loss, participants were asked general open-ended questions about loss (e.g., "What are (your culture's) traditions and rituals for honoring someone who passes?") and more

specific questions about grief (e.g., “What cultural strengths/traditions help people handle grief?”) (See Appendix A).

Cultural Adaptation Questions. Next, participants were instructed to review the handouts they received with items from the ICG (Prigerson et al., 1995), the PTGI (Tedeschi & Calhoun, 1996), and the proposed diagnostic criteria for PCBD from the DSM-5 (APA, 2013). The ICG, previously described in Chapter 1, was the primary measure selected for cultural adaptation. The participant was given time to read these materials if they had them at hand, and in some cases the interviewer read the items aloud to the participant. Participants were asked not to answer the items but to evaluate the individual items' cultural appropriateness and relevance for AI people.

In addition to the ICG, items from the PTGI were considered for cultural adaptation as well. The PTGI (Tedeschi & Calhoun, 1996) is a 21-item measure originally developed to assess how people adaptively changed following a traumatic experience. This measure has five subscales assessing personal growth following a traumatic event: 1) relating to others (e.g., “I have a greater sense of closeness with others”), 2) new possibilities (e.g., “I developed new interests”), 3) personal strength (e.g., “I have a greater feeling of self-reliance”), 4) spiritual change (e.g., “I have a better understanding of spiritual matters”), and 5) appreciation of life (e.g., “I can better appreciate each day”). Participants are asked to indicate the extent to which they have experienced each change, with response options ranging from 0 (*no change*) to 5 (*great change*). Similar to the ICG items, participants were not asked to complete the measure but rather evaluate the individual items.

The PTGI was included in this phase to help generate or adapt items related to adaptive aspects of the grieving process. While the PTGI was originally developed to measure growth

following a traumatic experience, Tedeschi & Calhoun (2004) have stated that the PTGI can also be used as a universal measure of growth following any life stressor. Given the similarity between complicated grief and PTSD, items on this measure related to adaptive growth were considered relevant to the grieving process. These growth items also helped balance the focus on risk (complicated grief) with focus on protection (adaptive grief) in alignment with the community partners' priorities.

Participants were asked to provide feedback on their perceptions of the cultural relevance of the measure items and the PCBD diagnostic criteria. Participants were asked about the conceptual and semantic equivalence, or the overall meaning, of the measure items (Baker et al., 2010; Herdman et al., 1998; Johnson, 2006; Sidani et al., 2010) and relevance to AI experiences of complicated grief. They were asked to examine each item for cultural acceptability and to identify taboo subjects (Baker et al., 2010; Herdman et al., 1998; Johnson, 2006; Sidani et al., 2010). Participants made suggestions for changes to improve the items' cultural relevance to better fit AI people and also suggested items for deletion. They were invited to suggest other cultural aspects of the grieving process they believed were missing from the study materials. Final interview questions aimed to examine operational equivalence, or equivalence of the administration procedure and format, to determine whether participants understood how to respond to the items. This included evaluating whether participants understood the survey instructions and the Likert scale response options used in the measure (Baker et al., 2010; Herdman et al., 1998; Johnson, 2006; Sidani et al., 2010).

Data Analysis

All interviews were transcribed verbatim, and trained research assistants coded the data. Thematic analysis techniques were used to identify themes within the data related to grief experiences and to generate ideas for possible measure adaptations. Thematic analysis techniques emphasize identifying, analyzing, and interpreting patterns within qualitative data (Braun & Clarke, 2006). First, field notes taken by the author and her advisor during and after each interview were reviewed. Based on the participants' suggestions, items were changed, added, or removed from the ICG and PTGI measures. Next, field notes were used to create a list of content areas in need of additional exploration. These areas included expanding on individuals' experiences with loss (e.g., "What aspects of loss make grieving more difficult?"), healing from loss (e.g., "How does the person know when they are healing or when other people are healing well from grief?"), and participants' suggestions regarding specific cultural adaptations that would improve the ICG and PTGI for use with AI people. This list of content areas was provided to a team of five undergraduate research assistants, who then read all transcripts and extracted relevant information from the 12 interviews. Once excerpts were compiled from all interviews, they were reviewed again to determine additional modifications needed to improve the cultural fit of the ICG and PTGI.

Findings

Cultural Connection

All participants reported having a strong cultural connection (Table 1). Specifically, participants reported having an Indian name ($n = 10, 83.3\%$), having an Elder or traditional

person to guide them ($n = 12$, 100%), and participating in traditional spiritual ceremonies at least once a week ($n = 8$, 66.6%). In addition to traditional spiritual practices, most participants reported practicing a Western religion ($n = 8$; 66.6%) and attending church. Participants reported strongly relying on their Native culture in times of need ($n = 10$, 83.3%). Moreover, they indicated that this connection to their Native culture was critical for coping with their experiences with loss. One participant explained: “Had I not been practicing my cultural ways, I probably would be just grieving all the time.” (P2)

Table 1. *Participant Cultural Connection Characteristics*

Characteristic	Value
Religion or faith-based affiliation n (%)	
Catholic and Traditional Native Spirituality	4 (33.4)
Mormon and Traditional Native Spirituality	2 (16.6)
Christian and Traditional Native Spirituality	2 (16.6)
Traditional Native Spirituality	4 (33.4)
I know my Indian name n (%)	10 (83.3)
I have a traditional person, Elder or Clan Mother who I can talk to n (%)	12 (100)
I believe that animals and rocks have a spirit like Native people n (%)	12 (100)
I participate in traditional spiritual ceremonies n (%)	
2 or 3 times a year	2 (16.7)
Twice a month	2 (16.7)
Weekly	3 (25)
Every day	5 (41.6)
When I am in need of guidance, I look to my Native culture for help n (%)	
Strongly agree	10 (83.3)
Do not agree or disagree	2 (16.7)

Experiences with Grief

Participants had extensive experiences with grief and loss. Most of the sample ($n = 9$, 75%) reported losing at least one close person in the past two years. Participants commonly reported losing more than one person in this two-year time period. For example, one person said:

“So last May we lost [name’s] grandpa, who I was close with. And then, lost my grandpa's brother in November/December. And then, in June, I lost my cousin, who I grew up around, to suicide. And then a couple weeks ago, I lost my [Indigenous word] brother, which means somebody I took in as my brother. Um, we lost him two and a half, three weeks ago now.” (P4)

Experiencing frequent losses of important people was very common in this sample, as half the sample reported losing more than 20 important people in their lifetime ($n = 6$; 50%). Loss was so pervasive in the community that one participant said, “It’s sad to say, we’re almost like professional mourners.” (P6) Moreover, past losses were thought to make coping with current losses more difficult. One participant said, “We have so many deaths that it reignites that grief we are already experiencing.” (P5) Given the frequency of loss in the community, it was no surprise that 11 participants (91.7%) reported attending at least one funeral in the past year. The one participant who reported not attending funerals said:

“Because of my son’s death, I try to avoid funerals. But because of our culture, we are supposed to be there to represent and to help. I try to avoid them. I will go through the process of taking food, but I usually don't stay very long.” (P2)

It is important to note that these data were collected during the COVID-19 pandemic, which caused the deaths of many tribal members and also prevented people from gathering as a community to perform the traditional ceremonies needed for a proper funeral. Specifically, one participant said:

“We can't have proper funerals the way that we usually do as our culture. You know, you can't have the wakes or a lot of the ceremonies that go with the funerals, the moving of the spirit to the next world...it's hard to do those while this [COVID-19] is going on.” (P12)

This suggests that the COVID-19 pandemic may be an added barrier to healing from grief in this community that already experiences a great deal of loss and grief during typical circumstances. Next, I discuss findings relevant to culturally adapting the ICG and PTGI.

Table 2. *Participant Experiences with Loss (n = 12)*

Characteristic	Value
How many important people have you lost in your lifetime? n (%)	
Less than 10	3 (25)
10-20	3 (25)
20-30	2 (16.7)
30 or more	4 (33.3)
How many important people have you lost in the past two years? n (%)	
0	3 (25)
1-5	5 (41.7)
6-10	3 (25)
10 or more	1 (8.3)
What was the cause of the person's death for your most significant loss? n (%)	
Cancer	1 (8.3)
Diabetes	1 (8.3)
Stroke	1 (8.3)
Accidents involving drugs or alcohol	6 (50)
Suicide	3 (25.1)
How many funerals have you gone to in the past year? n (%)	
0	1 (8.3)
1-10	6 (50)
11 or more	5 (41.7)

Cultural Adaptations

Conceptual and Semantic Equivalence: Items with Good Fit

Throughout the interviews, participants identified numerous concepts in the ICG and PTGI related to grief and healing that they felt were relevant for AI people. When participants discussed their experiences with loss, they commonly reported feeling “lonesome” or feeling an emptiness in their life when they reflected on a loved one who had passed away. For example, one participant said, “Grief, it can be a very dark hole. It can be lonely, this overwhelming feeling of aloneness.” (P9) Feelings of loneliness and emptiness were represented in the ICG with items such as: “I feel lonely a great deal of the time ever since my loved one died,” and “I feel that life is empty without the person who died.”

When participants reviewed the PTGI, they identified items related to spiritual change (e.g., “I have a better understanding of spiritual matters since my loss”) and relating to others (e.g., “I more clearly see that I can count on people in times of trouble”) as important aspects of adaptive grief. Participants viewed Native spirituality and cultural traditions as critical components of healing after losing a loved one. One participant said:

“That is what led me to the culture too—it was grief. My grandpa died...there was a lot of self-searching, and at his one-year wiping of the tears [ceremony], I finally got my Indian name. That really was a significant thing for me, and I feel like every death since then pushes me further into the culture because it makes sense to me. And it just feeds the soul.” (P4)

Through Native spirituality and traditional cultural practices, participants felt they were able to better understand and cope with their loss.

Regarding the *relating to others* subscale in the original PTGI, the death of a tribal member was sometimes described as a unifying experience in which families put aside differences and came together to support each other. This sentiment was reflected in the following quotation:

“I thank God for our community. One family can be fighting another family but then put that aside...there’s a saying, ‘a pain of one is a pain of all.’” (P5)

When experiencing loss, people in tribal communities can see they can count on each other in times of need. This support is critical in healing and growing after the loss of a loved one.

Conceptual and Semantic Equivalence: Item Revisions

Participants suggested minor phrasing revisions were necessary for some ICG and PTGI items to improve their cultural appropriateness. Ultimately, 10 items were unchanged from the

original ICG and 8-items were revised. All 11 PTGI items were revised before they were included in the final item pool (Table 3).

Table 3. *Revised Items Included from the ICG and PTGI*

Proposed Measure Items	Domain
I think about this person so much that it's hard for me to do the things I normally do.	CG
Memories of the person who died upset me.	CG
I feel I cannot accept the death of the person I lost.	CG
I feel myself longing for the person who died.	CG
I feel drawn to places and things associated with the person who died.	CG
I feel angry or bitter about my loss.	CG
I feel disbelief, stunned, or dazed over my loss.	CG
Ever since my loss, it is hard for me to trust people.	CG
I feel lonely a great deal of the time ever since my loved one died.	CG
I feel angry with the person who died.	CG
I have pain in the same area of my body or have some of the same symptoms as the person who died.	CG
I go out of my way to avoid reminders of the person who died.	CG
I feel that life is empty without the person who died.	CG
I sometimes hear the voice of the person who died speak to me.	CG
I sometimes see the person who died stand before me.	CG
I feel envious of others who have not lost someone close.	CG
Ever since my loss, I feel as if I have lost the ability to care about other people.	CG
I feel distant from my family or community since my loss.	CG
Since my loss, I have changed my priorities about what is important in life.	AG
I have a better understanding of spiritual matters since my loss.	AG
I more clearly see that I can count on my family and community in times of trouble.	AG
I find it easier to connect with other people since my loss.	AG
I am better able to accept life's difficulties since my loss.	AG
My loss has helped me make positive changes in my life.	AG
I am more able to forgive other people and myself since my loss.	AG
I have more compassion for other people who have suffered losses.	AG
Since my loss, I have discovered that I'm stronger than I thought I was.	AG
My loss has helped me find new meaning in life.	AG
I have a stronger spiritual connection or belief system since my loss.	AG

Note. CG = complicated grief; AG = adaptive grief.

Items from the ICG were not significantly altered in this phase of cultural adaptation, although minor changes were made. An example of a minor change was condensing two items into one item (e.g., “I feel disbelief over what happened,” and “I feel stunned or dazed over what happened” were changed to “I feel disbelief, stunned or dazed over my loss” because participants found the original items repetitive). Also, the term “what happened” (referring to a traumatic event) was replaced with “my loss” to clarify the item’s intended focus. Another item (“Ever since he/she died, I feel as if I have lost the ability to care about other people or I feel distant from people I care about”) was separated into two different items: “Ever since my loss, I feel as if I have lost the ability to care about other people,” and “I feel distant from my family or community since my loss.” The definition of “close people” was revised to include family and community members who may not have been biologically related to the participant, as participants asked for greater clarification of this term and noted the importance of extended kinship networks in AI/AN communities. After careful consideration, items related to memories (e.g., “Memories of the person who died upset me”) and communication with the deceased (e.g., “I sometimes hear of the voice of the person who died speak to me”) from the original ICG were retained. This decision was made to allow for the comparison of original items from the ICG representing maladaptive grief with newly developed memory and communication items that participants stated could be either positive or negative.

One frequent change made to the PTGI items was to specify that the life changes were related to losing a loved one. For example, the item “I have changed my priorities about what is important in life,” was edited to include “since my loss” to clarify that these changes were

associated with the grieving process. Another change suggested by participants was to replace the term “religion” in the PTGI with “spirituality” or “belief system.” As one participant stated:

“I would try to stay away from the word *religion*. Those two [spirituality and religion] are very different, but people think they are the same.” (P8)

In order to accommodate this suggested change, the PTGI item “I have a stronger religious faith” was changed to “I have a stronger spiritual connection or belief system since my loss.”

Participants had concerns about PTGI items related to discovering a greater sense of self-reliance and personal strength (e.g., “I have a greater feeling of self-reliance”) as a result of experiencing loss. One participant said:

“I do struggle... I do know we have faced difficult trials, and I know that we do, like, get through them well, but I also don't like that that's attributed to shitty things that have happened to our family. I obviously agree that you do find, like, a strength that you didn't know exists, but also, what I hear a lot from people is ‘Why, why do I have to go through this again?’” (P4)

Participants found it difficult to conceptualize the development of self-reliance through coping with loss as adaptive growth. Participants explained that they did not choose to become self-reliant or stronger after experiencing a loss, and they were reluctant to view significant losses as positive. Part of their experience of being Native was to live through adversity, but that did not always feel like an adaptive growth experience. In fact, people mentioned becoming “ultra-independent” and not wanting to depend on others as a negative, maladaptive outcome of loss. With regard to independence and self-reliance, one participant said:

“That’s a bad thing. You need to depend on others a lot. I think growing up I was, I was solo, ultra-independent—like, I’m not going to depend on you for anything, and that just puts up a lot of barriers.” (P6)

Loss can lead people to become “ultra-independent” or isolate themselves from their social support network to protect themselves from experiencing the pain of future losses. To address these concerns, items related to self-reliance and personal strengths were reviewed. Only two items (i.e., “I am better able to accept life’s difficulties since my loss,” and “Since my loss, I have discovered that I’m stronger than I thought I was”) from the original PTGI personal strength subscale were retained for further examination. One item (“Since my loss, I have isolated myself from friends and family”) was added as a possible symptom of complicated grief to capture this idea of “ultra-independence” and isolation.

Conceptual and Semantic Equivalence: Item Development

Participants identified six key factors not represented in the ICG or the PTGI subscales they felt reflected AI people’s experiences with grief and healing. These additions address themes related to: 1) memories of the deceased, 2) communications with the deceased (i.e., “visits”), 3) connection with community and culture, 4) feeling guilty or responsible for the loss, 5) emotional and behavioral responses to grief, and 6) coping with loss. These themes were often foils of each other, with negative aspects represented in the complicated grief items and positive elements represented in the adaptive grief items. In order to capture these themes, 17 complicated grief and 14 adaptive grief items were developed for inclusion in the culturally adapted measure (Table 4).

Memories of the Deceased. Participants raised concerns about the original ICG item “Memories of the person who died upset me,” as participants felt this question asked if they had

negative thoughts about the person who died. Culturally, it was viewed as taboo to admit having negative thoughts about someone who died; instead, people were supposed to focus on positive memories. One person said:

“We don’t think bad of people. When you remember a lost loved one, it always puts a happy smile on your face and possibly brings a tear to your eye.” (P3)

To address this conceptual difference, participants suggested asking a question about the positive reminiscence of a loved one instead. The items “I enjoy remembering or talking about the person I lost” and “I often remember funny stories about the person who died” were added to the item pool to represent positive memories. It was also suggested that if questions about negative memories were included in the adapted measure, it would be important to differentiate between having negative thoughts about someone who died and being upset about memories that reminded people of their loss. Negative memories in particular, while hard to admit, were deemed to be indicators of complicated grief. The items “It is easier to remember upsetting memories of the person who died than happy ones” and “I often think about what my loved one might have been if they were still alive” were added to capture negative aspects of reminiscence that suggest a complicated grieving process.

Communication with the Deceased. The original ICG included the items “I sometimes hear the voice of the person who died speak to me” and “I sometimes see the person who died stand before me” as signs of complicated grief. When participants reviewed these items, they indicated that seeing or speaking with their loved ones was a generally positive experience and was normative in the culture. All participants believed that seeing or hearing deceased loved ones in dreams, visions, or through other means constitutes a real visit from another realm of

existence, rather than a hallucination. In fact, participants said being able to communicate with loved ones who passed on could be a sign of healing. One participant stated:

“They [daughters] have never come to me. They’ve come to my mom, my sisters, my aunties, you know. And so, I think in some ways, I never am over some of that stuff... because I think that is kind of the last thing—when they can appear to you in a dream.” (P8)

For many AI people, being able to communicate with a loved one who passed away is a sign of healing from grief. Participants also stated that if a loved one communicated with them, they were trying to provide guidance. While the message they brought might be upsetting, it was still considered a positive experience. The items “I welcome visits from the person who died in my dreams or visions” and “I enjoy communicating in prayer with my relatives who have passed on” were added to the item pool to reflect positive aspects of communicating with a loved one who had died.

Other participants stated that communication with deceased loved ones, while normal, could be either positive or negative, depending on the message the deceased was trying to communicate and the circumstances surrounding their visit. One participant shared that visits from a loved one could be a frightening experience for people who were not attuned with traditional ways, stating:

“I have another niece who’s starting to hear and see our relatives, and she was afraid... I just try to sit with her as long as I can and let her know that this is natural, like don't worry about it. If you’re hearing things or seeing—you know, if they’re positive, they're probably good.” (P6)

This suggests that people who do not have a strong connection with their Native culture or who have not been taught how to interpret these interactions within the cultural context might fear communication with a loved one who has passed on. For AI people who are connected with their

culture, fearing or resisting visits from loved ones was believed to be a sign of complicated grief. Items were added to capture this indicator of maladaptive grief (e.g., “I would not want to hear the voice of the person who died speak to me,” and “Dreams of the person who died would upset me”).

Connection with Community and Culture. Themes related to isolation and connection during the grieving process emerged as a culturally embedded phenomenon. Specifically, in the Native culture of this reservation, it was a traditional practice to isolate oneself and stop attending ceremonies or social events for one year after the death of a loved one. Traditionally, friends and community members were to support the family while they mourned by bringing food and taking care of other practical matters so the family could mourn in isolation. One participant said:

“Our cultural ways do help in grieving and walking through that loss. You’re never alone. You’re never alone here when somebody dies. There are people that will show up with food and come to your house and let you know you’re not alone. That’s what’s good about our community.” (P9)

Once this one-year isolation and mourning period had passed, bereaved people traditionally participated in a *wiping of the tears* ceremony in which they were encouraged to end their mourning and reconnect with the community. In this cultural context, isolation is not viewed as a negative aspect of grieving until after the one-year mourning period has passed, and healing from loss is reflected in reconnecting with the community. Items were added to the adaptive grief scale to capture this reconnection to community and culture after one’s loss (e.g., “I am reconnecting with my family or community since my loss” and “I have gone back to ceremony or other cultural traditions since my loss”).

Guilt and Responsibility. Participants discussed personal responsibility in two contexts: feeling responsible for the death of a loved one as a sign of complicated grief, and feeling a responsibility to help others as a sign of adaptive grief. One person reported having felt some responsibility for the loss of a loved one to chronic illness, stating: “Maybe I should’ve done more...if I would have pushed them more to go to the doctor...” (P12) The item “I feel responsible for the death” was added to capture this sense of responsibility and guilt.

As people were healing and processing their loss, there was a shift in personal responsibility from feeling responsible for a loved one’s death to feeling a responsibility to help others who were grieving. Participants saw this as a sign of adaptive growth. For example, one participant shared: “When you’re able to be there for somebody else, regardless of your own things, that’s growth too.” (P7) Participants indicated that people need to have a “grief guide” to help them navigate grief and mourning, and that it is was the responsibility of those who had experienced and coped with their own loss to help others who were struggling. The item “Since my loss, I feel a stronger sense of responsibility to help other people who have lost someone close to them” was created to capture this indicator of adaptive growth.

Emotional and Behavioral Responses to Grief. Participants reported experiencing grief not only emotionally but also physically. The ICG has an item about the physical expression of grief (i.e., “I have pain in the same area of my body or have some of the same symptoms as the person who died”); however, participants felt this item was not a typical experience among AIs. They instead reported more general physical manifestations of grief, saying:

“It [grief] feels like a huge weight on your chest, like it’s hard to breathe. It’s a physical feeling, it’s a physical weight, you lose sleep, you lose train of thought.” (P6)

A more general item about the somatic manifestation of grief symptoms (i.e., “I have had unexplained physical symptoms since my loss [for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches]”) was added to the item pool to reflect this experience of complicated grief.

Coping with Loss. When participants were asked to reflect on things that made it harder to cope with grief, they identified substance use and other maladaptive coping behaviors as barriers to healing. As one participant stated:

“People destroy their lives with substance abuse and destructive behaviors because of the pain. It’s always gonna be the pain of grief.” (P9)

Substance use was seen as being closely associated with grief in this community. Substance use was responsible for many losses through illness and accidental deaths, and also was seen as a primary way of coping with loss. Participants also believed that using alcohol to cope with grief prolonged the grieving process and led people into a perpetual cycle of grieving and substance use. Other behaviors such as eating or engaging in risky sex to numb the pain of grief also were discussed by participants as indicators of complicated grief. The item “Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings” was added to the complicated grief item pool to address this theme.

Participants once again stressed the importance of social support in coping with grief. However, the ability to cope with a loss as a community was negatively impacted by the COVID-19 pandemic, which led one participant to say:

“Because of COVID, we’re not able to grieve like we would usually do. Where we have gatherings of our community across the rez...when we have a wake and bring food, just being there, supporting the family, and honor the person who crossed.” (P10)

Restrictions put in place during the COVID-19 pandemic greatly affected the community and prevented traditional funeral ceremonies from taking place. Traditional spiritual ceremonies are an important component of grieving in Native communities as they bring peace to family members and are thought to prepare the deceased’s soul for the afterlife. Being prevented from having the community involved in funeral ceremonies was thought to exacerbate complicated grief. The item “I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community” was added to assess how these disruptions in communal grieving impact symptoms of grief. This item also reflected worries among some participants who were newer to their cultural ways about not conducting ceremonies or grieving properly, aside from complications due to social distancing.

Learning to tolerate negative emotions associated with losing a loved one was viewed as a sign of adaptive grief. Participants indicated that learning to sit with grief-related emotions was difficult but essential for healing, saying:

“I think the feelings—they can be very overwhelming for people. You know, nobody wants to feel that heaviness and sadness. [You need to] learn to live inside that [negative emotions] and honor it...then allow yourself to feel happy.” (P4)

Practicing mindfulness and tolerating distressing emotions during the grieving process was seen as difficult but necessary for growth and healing. The item “I have learned to accept my emotions and stop being afraid of my feelings” was developed to assess this aspect of adaptive coping with grief.

Table 4. *Items Developed for the Culturally Adapted Measure*

Proposed Measure Items	Domain
Since my loss, I have isolated myself from friends and family.	CG
I have found it difficult to forgive the person who died.	CG
I feel guilty for feeling happy or living a good life when this person has died.	CG
I feel responsible for the death.	CG
I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	CG
I am afraid of burdening others with my feelings of grief.	CG
I feel like the pain from this loss will last forever, or that I will always feel this way.	CG
I would not want to hear the voice of the person who died speak to me.	CG
I would not want to be visited by the person who died.	CG
Dreams of the person who died would upset me.	CG
I would not want to see the person who died in my dreams.	CG
I feel numb or empty, or like I don't recognize my own emotions or feelings since my loss.	CG
I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	CG
Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	CG
I stopped taking care of myself or doing things I know would make me feel better since my loved one died.	CG
It is easier to remember upsetting memories of the person who died than happy ones.	CG
I often think about what my loved one might have been if they were still alive.	CG
I have been doing things that made me happy before my loss.	AG
I enjoy remembering or talking about the person I lost.	AG
Since my loss, I have become more involved with my family or community.	AG
Since my loss, I have found new connections with my community or culture.	AG
I have gone back to ceremony or other cultural traditions since my loss.	AG
I feel I can help others who are grieving without being consumed by my own feelings of grief.	AG
I have learned to sit with difficult emotions.	AG
Since my loss, I feel a stronger sense of responsibility to help other people who have lost someone close to them.	AG
My loss has created new opportunities to serve my community.	AG
I am reconnecting with my family or community since my loss.	AG
I welcome visits from the person who died in my dreams or visions.	AG
I enjoy communicating in prayer with my relatives who have passed on.	AG
I have learned to accept my emotions and stop being afraid of my feelings.	AG
I often remember funny stories about the person who died.	AG

Note. CG = complicated grief; AG = adaptive grief.

Operational Equivalence

Overall, participants did not have concerns about the questionnaire format, mode of administration, or measurement methods. Participants did offer some suggestions regarding the measure instructions, however. For example:

“You’re going to be asking about a specific person, remember. You want them to think about one person... When this person answers these questions, you want to have them tell you, is this recently or was it ten years ago?” (P8)

This was an important point, as AI in people in this community experience so much loss that they might not have only one person in mind when answering questions unless prompted to do so. This could make assessing grief more challenging. Additionally, while people may have experienced many recent losses in their life, sometimes their most challenging loss was from years ago. With these concerns in mind, two questions were added at the end of the adapted measure asking participants to indicate who they were thinking of when they answered the items and when this person had passed away.

Final Item Pool

After revising items from the existing ICG and PTGI and developing new complicated grief and adaptive grief items, all potential items were pooled together (Table 5). The final item pool was comprised of 60 items representing both complicated grief (35 items) and adaptive grief (25 items).

Table 5. *Final Study One Item Pool*

Proposed Measure Items	Domain
I think about this person so much that it’s hard for me to do the things I normally do.	CG
Memories of the person who died upset me.	CG
I feel I cannot accept the death of the person I lost.	CG

I feel myself longing for the person who died.	CG
I feel drawn to places and things associated with the person who died.	CG
I feel angry or bitter about my loss.	CG
I feel disbelief, stunned, or dazed over my loss.	CG
Ever since my loss, it is hard for me to trust people.	CG
I feel lonely a great deal of the time ever since my loved one died.	CG
Since my loss, I have isolated myself from friends and family.	CG
I have found it difficult to forgive the person who died.	CG
I feel angry with the person who died.	CG
I feel guilty for feeling happy or living a good life when this person has died.	CG
I feel responsible for the death.	CG
I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	CG
16. I am afraid of burdening others with my feelings of grief.	CG
I feel like the pain from this loss will last forever, or that I will always feel this way.	CG
I have pain in the same area of my body or have some of the same symptoms as the person who died.	CG
I go out of my way to avoid reminders of the person who died.	CG
I feel that life is empty without the person who died.	CG
I would not want to hear the voice of the person who died speak to me.	CG
I would not want to be visited by the person who died.	CG
Dreams of the person who died would upset me.	CG
I would not want to see the person who died in my dreams.	CG
I sometimes hear the voice of the person who died speak to me.	CG
I sometimes see the person who died stand before me.	CG
I feel envious of others who have not lost someone close.	CG
I feel numb or empty, or like I don't recognize my own emotions or feelings since my loss.	CG
Ever since my loss, I feel as if I have lost the ability to care about other people.	CG
I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	CG
Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	CG
I stopped taking care of myself or doing things I know would make me feel better since my loved one died.	CG
It is easier to remember upsetting memories of the person who died than happy ones.	CG
I often think about what my loved one might have been if they were still alive.	CG
I feel distant from my family or community since my loss.	CG
Since my loss, I have changed my priorities about what is important in life.	AG
I have been doing things that made me happy before my loss.	AG
I enjoy remembering or talking about the person I lost.	AG
Since my loss, I have become more involved with my family or community.	AG

Since my loss, I have found new connections with my community or culture.	AG
I have gone back to ceremony or other cultural traditions since my loss.	AG
I have a better understanding of spiritual matters since my loss.	AG
I feel I can help others who are grieving without being consumed by my own feelings of grief.	AG
I more clearly see that I can count on my family and community in times of trouble.	AG
I have learned to sit with difficult emotions.	AG
Since my loss, I feel a stronger sense of responsibility to help other people who have lost someone close to them.	AG
I find it easier to connect with other people since my loss.	AG
I am better able to accept life's difficulties since my loss.	AG
My loss has helped me make positive changes in my life.	AG
My loss has created new opportunities to serve my community.	AG
I am more able to forgive other people and myself since my loss.	AG
I have more compassion for other people who have suffered losses.	AG
I am reconnecting with my family or community since my loss.	AG
I welcome visits from the person who died in my dreams or visions.	AG
I enjoy communicating in prayer with my relatives who have passed on.	AG
Since my loss, I have discovered that I'm stronger than I thought I was.	AG
I have learned to accept my emotions and stop being afraid of my feelings.	AG
My loss has helped me find new meaning in life.	AG
I have a stronger spiritual connection or belief system since my loss.	AG
I often remember funny stories about the person who died.	AG

Note. CG = complicated grief; AG = adaptive grief.

Persistent Complex Bereavement Disorder Criteria

Overall, participants responded positively to the proposed DSM-5 diagnostic criteria for Persistent Complex Bereavement Disorder. Multiple participants indicated that a diagnosis of PCBD could be particularly helpful for people with current substance use problems. One participant stated:

“Her [cousin’s] daughters are in foster care, then she has one living somewhere that’s got severe disabilities and she’s probably lost, like, three to SIDS or miscarriage. She gets sent to [substance use] treatment for 28 days and, you know, she’s been to treatment, I think, twelve times. I really feel like if the Tribes could acknowledge something like that [PCBD diagnosis], they would save so much money, because we have a lot of people going to treatment for 28 days and coming back and using again.” (P7)

This suggests that PCBD may be a useful diagnosis for AI people, and that AI communities could benefit from research on the relationship between substance use disorders and PCBD.

Discussion

The current study aimed to work with AI community members to begin to culturally adapt the ICG and PTGI to reflect Native experiences with grieving. This aim was accomplished by conducting semi-structured interviews with 12 AI people living in a rural reservation community. The research team was able to recruit Elders and other cultural experts to discuss their experiences with loss and provide feedback on the measures under consideration. All interviews were conducted online over Zoom due to state-mandated COVID-19 restrictions. Despite concerns that participants would be uncomfortable with the online interview format, they were eager to discuss their grief experiences and did not appear to be bothered by having these discussions through Zoom. One possible explanation for the community support of this study was that this project was developed from a community-derived research question and was conducted at the request of the community partners. There was community buy-in for this project because it represented a significant health concern for AI people, and participants wanted their experiences with grief and loss to help others. Future research is needed to determine whether the themes related to grief that emerged from these interviews also apply to AI adolescents and young adults, as these age groups were not represented in the present sample.

This research constituted an important first step in understanding AI experiences with grief and loss. There were many overlapping areas between participants' experiences with grief and healing and the original items from the ICG and PTGI. There were also significant cultural

disconnects identified during the interviews (e.g., memories, communication, connection, self-reliance). Cultural adaptations were made to address these disconnects and improve the conceptual, semantic, and operational equivalence of the ICG and PTGI. One interesting pattern that emerged during the adaptations of the PTGI was that participants tended to favor items that focused more on tangible behavioral elements of growth (e.g., “I have gone back to ceremony or other cultural traditions since my loss”) rather than subjective perceptions of growth. Participants were better able to understand measurable actions as indicators of healing and growth following loss. Overall, the adaptations made to the ICG and PTGI are intended to reflect cultural experiences with grief and contribute to greater understanding of complicated and adaptive grief in this population.

CHAPTER THREE

STUDY TWO: ITEM PRETESTING

Following the interviews with cultural experts in Study One, items from the existing Inventory of Complicated Grief and Post-Traumatic Growth Inventory were modified. New items were generated in this stage to represent themes participants believed were missing from the original study measures. In Study Two, a pool of items for the Indigenous Grief Inventory was presented to a sample of respondents for pretesting. Participants were 17 AI/AN adults who reported having experienced a significant loss at some point in their lives and included community members as well as psychologists and researchers. The pretesting of adapted items is a vital screening process for culturally adapted measures and helps ensure that the generated or adapted items are appropriate and understandable before they are used in future validation studies (Gjersing et al., 2010; Gudmundsson, 2009). To pretest items, participants were asked to provide feedback on the cultural acceptability and clarity/readability of items generated or adapted in Study One.

MethodParticipants

Participants were AI community members ($n = 10$; 58.8%) and AI/AN academic researchers and mental health practitioners ($n = 7$; 41.2%) from both rural and urban communities in the United States. Several of the community member participants ($n = 6$; 35.3%) were also participants in Study One. The sample included female ($n = 5$; 29.4%) and male ($n =$

12; 70.6%) participants ranging in age from 25-69 years old ($M = 45.41$; $SD = 14.10$). All participants reported having a college degree ($n = 17$; 100%). All participants reported losing a loved one in the past two years, and only three people (17.7%) in the sample had not attended a funeral in the past year (Table 6).

Table 6. *Study Two Participant Characteristics (n = 17)*

Characteristic	Value
How many important people have you lost in your lifetime? <i>n</i> (%)	
1-10	5 (29.4)
10-20	7 (41.2)
20 or more	5 (29.4)
How many people close to you have you lost in the past 2 years? <i>n</i> (%)	
1-5	9 (52.9)
6-10	5 (29.4)
10 or more	3 (17.7)
How many funerals have you been to in the past year? <i>n</i> (%)	
0	3 (17.7)
1-5	10 (58.9)
6-10	1 (5.9)
10 or more	3 (17.7)

Procedure

All study materials and modifications were approved by the university's IRB and tribal IRB before data collection. The community sample was recruited from participants in Study One who indicated they were willing to participate in additional research studies and recommendations from the university's AI/AN Student Success Office. To recruit participants for the professional sample, the research team generated a list of AI/AN researchers and mental health practitioners. Email invitations with a description of the study were sent to all potential participants. Those who expressed interest in providing feedback on the measure items were sent

a link to a web-based survey using the Qualtrics platform. The survey took approximately 40 minutes to complete, and participants were compensated with a \$20 gift card.

The pooled grief measure items adapted from the original instruments or generated from the semi-structured interviews were entered into a Qualtrics survey. There were 35 items representing complicated grief and 25 items reflecting adaptive grief included in the item pool. Participants were asked to rate each item on clarity (i.e., “This item makes sense;” “It would be easy for me to answer this item”) and cultural acceptability (i.e., “This item is culturally appropriate for Native American people”). Participants also were asked to indicate how well each item reflects complicated grief (i.e., “This item is a good reflection of how Native American people feel when they are struggling with a significant loss”) or adaptive grief (i.e., “This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss”), respectively. Items were rated from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores indicating that items were culturally appropriate and easy to understand. Participants also were invited to provide qualitative feedback addressing any concerns or comments they had about each item, followed by a final question asking them to suggest additional items that may be missing from the measure. See Appendix B for the complete survey instrument.

Data Analysis

Aiken’s coefficient (V) was used to quantitatively assess item quality (Aiken, 1980, 1985). Aiken’s coefficient allows researchers to calculate a rating for each item based on the participants’ item evaluation scores on cultural acceptability and item clarity (Aiken, 1980, 1985; Dunn et al., 1999; Penfield & Giacobbi, 2004). Aiken’s V is commonly used in psychometric

studies and has been shown to adequately assess the quality of measure items (Dunn et al., 1999; Penfield & Giacobbi, 2004; Retnawati, 2016). The formula for Aiken's V ($V = (X - l) / k$) is the sample mean of each item rating (X) minus the lowest possible rating score for each item (l). This value is then divided by the range of possible values for each item (k) to get each item's content-relevance score (V). Aiken's V scores range from 0 to 1, with higher values indicating higher quality (Dunn et al., 1999; Penfield & Giacobbi, 2004).

Comprehension and cultural appropriateness V scores were calculated separately for community members and academics/professionals. Past studies have found that V scores have been useful in evaluating item quality even in extremely small samples (Penfield & Giacobbi, 2004). The quality of items was determined by comparing the V value of each item with specific criterion values. Values between 1-0.70 indicate high item quality, values between 0.69-0.40 indicate medium item quality, and values between 0.39-0 indicate low or no item quality (Divayana et al., 2019). Items with Aiken's V scores below 0.70 were considered for removal from the item pool.

Results

Complicated Grief Items

The Aiken's V scores for the item comprehension and cultural appropriateness ratings revealed 18 items with a V score below 0.70 (Table 7). Both academics and community members rated 10 of the proposed grief items with a score below the acceptable threshold on item comprehension and cultural appropriateness. An additional eight items received low cultural appropriateness V scores but were given adequate comprehension V scores. These items reflected

themes related to upsetting memories of the deceased (e.g., “Memories of the person who died upset me”), fear of communicating with the deceased (e.g., “I would not want to see the person who died in my dreams”), negative feelings towards the deceased (e.g., “I have found it difficult to forgive the person who died”), negative emotions about loss (e.g., “I feel angry or bitter about my loss”), and physical symptoms (e.g., “I have pain in the same area of my body or have some of the same symptoms as the person who died”).

The qualitative feedback provided by participants shed light on the low-scoring grief items. Like feedback provided in Study One, participants had concerns about negative memories of the deceased and negative experiences communicating with the deceased. Therefore, it was decided that items related to positive memories and communication with deceased loved ones would be better suited for the adaptive grief item pool. Next, items related to negative feelings towards the deceased and negative emotions about loss were rephrased based on participants' qualitative feedback. For example, the item “I feel angry or bitter about my loss” was flagged for its lack of cultural appropriateness, and qualitative feedback suggested the words “angry” and “bitter” were the problematic components of the item. In fact, five participants indicated that feelings of anger and bitterness were difficult to acknowledge, as one participant said, “Feeling this way [angry or bitter] may be counter to the culture and difficult to admit.” Considering the qualitative feedback provided by participants, the original item was edited to “I feel resentful about my loss” in order to avoid using phrasing that may lead to inconsistent responses and to improve the cultural appropriateness of the item.

Finally, the original ICG item referring to somatic symptoms (i.e., “I have pain in the same area of my body or have some of the same symptoms as the person who died”) was

replaced with an item about general somatic symptoms associated with grief originally developed in Study One (i.e., “I have had unexplained physical symptoms since my loss. For example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches”). This revised item aimed to capture the tendency to experience emotional distress physically among many AI/ANs (Satcher, 2001).

Item inclusion was determined using both comprehension and cultural appropriateness *V* scores as well as qualitative feedback. Ultimately, ten items were removed, 20 were edited, and five were left unchanged from the item pool. Participants suggested that an item about culturally incongruent grieving practices was needed for the measure, as AI/AN people might feel pressure to grieve following specific traditional Native spiritual practices and may experience guilt when they are not following these practices or are unsure of the proper protocol. Therefore, an item was added to assess concerns about grieving in a way that is incongruent with traditional practices or cultural norms (i.e., “I worry that I am not grieving in the way I am supposed to”). This item also reflected barriers to proper grieving that participants reported in Study One related to social distancing during the COVID-19 pandemic.

Table 7. Complicated Grief Items: Comprehension and Cultural Appropriateness V Scores

	Comprehension		Cultural <i>V</i>		Item Action
	<i>V</i> Score		Score		
	A	C	A	C	
1. I think about this person so much that it’s hard for me to do the things I normally do.	0.97	0.83	0.79	0.79	Edited
2. Memories of the person who died upset me.	0.68	0.66	0.64	0.66	Removed
3. I feel I cannot accept the death of the person I lost.	0.71	0.73	0.47	0.65	Edited
4. I feel myself longing for the person who died.	0.88	0.84	0.70	0.75	Edited
5. I feel drawn to places and things associated with the person who died.	0.82	0.83	0.70	0.76	Edited
6. I feel angry or bitter about my loss.	0.80	0.80	0.62	0.70	Edited

7. I feel disbelief, stunned, or dazed over my loss.	0.88	0.83	0.77	0.81	Edited
8. Ever since my loss, it is hard for me to trust people.	0.62	0.69	0.62	0.64	Removed
9. I feel lonely a great deal of the time ever since my loved one died.	0.88	0.84	0.86	0.74	Edited
10. Since my loss, I have isolated myself from friends and family.	0.86	0.79	0.77	0.74	Edited
11. I have found it difficult to forgive the person who died.	0.66	0.56	0.50	0.53	Removed
12. I feel angry with the person who died.	0.82	0.66	0.68	0.58	Removed
13. I feel guilty for feeling happy or living a good life when this person has died.	0.91	0.74	0.86	0.73	Edited
14. I feel responsible for the death.	0.80	0.70	0.66	0.72	Edited
15. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	0.91	0.83	0.86	0.80	Unchanged
16. I am afraid of burdening others with my feelings of grief.	0.89	0.82	0.79	0.76	Unchanged
17. I feel like the pain from this loss will last forever, or that I will always feel this way.	0.88	0.79	0.72	0.79	Edited
18. I have pain in the same area of my body or have some of the same symptoms as the person who died.	0.59	0.65	0.54	0.61	Removed
19. I go out of my way to avoid reminders of the person who died.	0.88	0.78	0.63	0.71	Edited
20. I feel that life is empty without the person who died.	0.95	0.79	0.77	0.75	Edited
21. I would not want to hear the voice of the person who died speak to me.	0.63	0.51	0.39	0.42	Removed
22. I would not want to be visited by the person who died.	0.50	0.63	0.39	0.60	Removed
23. Dreams of the person who died would upset me.	0.62	0.59	0.32	0.45	Removed
24. I would not want to see the person who died in my dreams.	0.63	0.60	0.39	0.48	Removed
25. I sometimes hear the voice of the person who died speak to me.	0.84	0.79	0.64	0.72	Edited
26. I sometimes see the person who died stand before me.	0.88	0.71	0.59	0.58	Edited
27. I feel envious of others who have not lost someone close.	0.88	0.73	0.50	0.58	Edited
28. I feel numb or empty, or like I don't recognize my own emotions or feelings since my loss.	0.95	0.80	0.86	0.75	Unchanged

29. Ever since my loss, I feel as if I have lost the ability to care about other people.	0.79	0.80	0.72	0.71	Edited
30. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	0.91	0.84	0.97	0.84	Unchanged
31. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	0.93	0.75	0.91	0.84	Unchanged
32. I stopped taking care of myself or doing things I know would make me feel better since my loved one died.	0.80	0.84	0.79	0.82	Edited
33. It is easier to remember upsetting memories of the person who died than happy ones.	0.67	0.64	0.55	0.63	Removed
34. I often think about what my loved one might have been if they were still alive.	0.72	0.82	0.64	0.80	Edited
35. I feel distant from my family or community since my loss.	0.88	0.80	0.80	0.84	Edited

Note. A = academic researchers and practitioners, C = community members

Adaptive Grief Items

Overall, both academic and community member participants rated the adaptive grief items more favorably than the complicated grief items. Only two adaptive items received a *V* score below 0.70, and this was only for the cultural appropriateness ratings (Table 8). These low-scoring items and other adaptive grief items were revised based on qualitative feedback provided by participants. For example, in response to the item “My loss has helped me make positive changes in my life,” one participant stated: “Be careful with statements like these, as you do not want it to sound like the loss itself was a positive thing.” This comment suggests that items related to adaptive grief should focus on positive changes brought about by the healing from grief and not from the loss of a loved one. Therefore, the item was changed to “My experience with loss has helped me make positive changes or grow as a person” to clarify that the items are about the healing process and not about the loss itself.

Altogether, seven items were removed from the adaptive grief item pool. Six items were removed because they overlapped with other items that participants rated with higher comprehension and cultural appropriateness *V* scores. One question about spiritual connection (“I have a stronger spiritual connection or belief system since my loss”) was removed and replaced with a new item suggested by participants (“Healing ceremonies and practices [e.g., giveaways, wiping of the tears] following my loss brought me great comfort”).

Table 8. Adaptive Grief Items: Comprehension and Cultural Appropriateness V Scores

	Comprehension		Cultural <i>V</i>		Item Action
	<i>V</i> Score		Score		
	A	C	A	C	
1. Since my loss, I have changed my priorities about what is important in life.	0.93	0.83	0.82	0.80	Edited
2. I have been doing things that made me happy before my loss.	0.73	0.82	0.66	0.83	Edited
3. I enjoy remembering or talking about the person I lost.	0.88	0.84	0.66	0.75	Edited
4. Since my loss, I have become more involved with my family or community.	0.97	0.79	0.89	0.78	Edited
5. Since my loss, I have found new connections with my community or culture.	0.97	0.84	0.82	0.91	Unchanged
6. I have gone back to ceremony or other cultural traditions since my loss.	0.89	0.86	0.82	0.91	Edited
7. I have a better understanding of spiritual matters since my loss.	0.86	0.79	0.86	0.82	Edited
8. I feel I can help others who are grieving without being consumed by my own feelings of grief.	0.86	0.79	0.82	0.74	Unchanged
9. I more clearly see that I can count on my family and community in times of trouble.	0.86	0.85	0.86	0.89	Edited
10. I have learned to sit with difficult emotions.	0.82	0.78	0.72	0.74	Removed
11. Since my loss, I feel a stronger sense of responsibility to help other people who have lost someone close to them.	0.88	0.86	0.72	0.88	Removed
12. I find it easier to connect with other people since my loss.	0.84	0.81	0.77	0.80	Removed
13. I am better able to accept life’s difficulties since my loss.	0.75	0.75	0.72	0.79	Removed

14. My loss has helped me make positive changes in my life.	0.82	0.78	0.77	0.74	Edited
15. My loss has created new opportunities to serve my community.	0.84	0.79	0.75	0.74	Edited
16. I am more able to forgive other people and myself since my loss.	0.79	0.80	0.75	0.74	Edited
17. I have more compassion for other people who have suffered losses.	0.97	0.88	0.93	0.90	Edited
18. I am reconnecting with my family or community since my loss.	0.97	0.84	0.93	0.83	Unchanged
19. I welcome visits from the person who died in my dreams or visions.	0.86	0.86	0.79	0.85	Edited
20. I enjoy communicating in prayer with my relatives who have passed on.	0.97	0.80	0.91	0.80	Edited
21. Since my loss, I have discovered that I'm stronger than I thought I was.	0.88	0.93	0.82	0.93	Removed
22. I have learned to accept my emotions and stop being afraid of my feelings.	0.86	0.80	0.82	0.76	Edited
23. My loss has helped me find new meaning in life.	0.84	0.76	0.73	0.71	Removed
24. I have a stronger spiritual connection or belief system since my loss.	0.86	0.79	0.88	0.80	Removed
25. I often remember funny stories about the person who died.	0.86	0.79	0.89	0.91	Edited

Note. A = academic researchers or mental health practitioners, C = community members

General Measure Edits

One overarching concern raised by participants was using the terms “died” or “death” in the items. Participants suggested that using “passed” or “passed on” would be more culturally appropriate, as people with traditional Native spiritual beliefs view death as the passing of the spirit from the body to join one’s ancestors in another realm of existence. With this concern in mind, both complicated grief and adaptive grief items were edited to avoid using the terms “died” or “death” to improve the measure's cultural appropriateness. Also, because of the extent of losses experienced by AI/AN participants, two questions were added at the end of the revised grief measure to inquire about which loss the respondent was thinking about when completing

the measure. These new items are: “Who were you thinking of when you answered these questions (friend, parent, sibling)?” and “When did this person pass on (month/year)?” This addition was intended to help researchers gain insight into participants’ experiences with loss and how this might influence their responses. See Table 9 for the revised items in the preliminary Indigenous Grief Inventory.

Table 9. *Preliminary Indigenous Grief Inventory*

Item	Domain
1. I blame myself for the loss of my loved one.	CG
2. I feel that life is meaningless without the person who passed.	CG
3. I feel resentful about my loss.	CG
4. I am reconnecting with my family or community since my loss.	AG
5. I have returned to activities that brought me pleasure or enjoyment before my loss.	AG
6. I feel guilty for feeling happy or living a good life after my loss.	CG
7. I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.	AG
8. I often think about how different life would be if my loved one were still here.	CG
9. I feel like the sadness or heartbreak from this loss will last forever.	CG
10. I stopped taking care of myself since my loved one passed on.	CG
11. I have seen the spirit of my loved one stand before me.	CG
12. I think about this person so much that it’s hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).	CG
13. Remembering or talking about the person who passed brings me comfort.	AG
14. My experience with loss has helped me make positive changes or grow as a person.	AG
15. I find peace when I communicate with my loved one who passed during prayer or ceremony.	AG
16. Healing ceremonies and practices (e.g., giveaways, wiping of the tears) following my loss brought me great comfort.	AG
17. I have strengthened my relationship with the Creator or God since my loss.	AG
18. I find it easier to forgive other people since my loss.	AG
19. I feel angry or bitter over my loss.	CG
20. I welcome visits from my loved one who passed in my dreams or visions.	AG
21. I feel drawn to places and things connected with the person who passed on.	CG
22. Ever since my loss, I have had a hard time caring about other people.	CG
23. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	CG

24. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	CG
25. Since my loss, I have found new connections with my community or culture.	AG
26. I worry that I am not grieving in the way I am supposed to.	CG
27. I have found comfort in church, ceremony, or other cultural traditions since my loss.	AG
28. I feel numb or empty, or like I don't recognize my own emotions since my loss.	CG
29. I feel shocked or paralyzed over my loss.	CG
30. Since my loss, I have become more involved and connected with my family or community.	AG
31. I feel I have lost control of my life since my loved one passed on.	CG
32. I go out of my way to avoid reminders of the person I lost.	CG
33. I often remember funny stories about the person who passed.	AG
34. Since my loss, I have learned to accept my emotions and trust that difficult feelings are temporary.	AG
35. I sometimes hear the voice of the person who passed speak to me.	CG
36. I am afraid of burdening others with my feelings of grief.	CG
37. Since my loss, I have distanced myself (emotionally or physically) from friends and family.	CG
38. I feel lonely a great deal of the time ever since the loss of my loved one.	CG
39. I am struggling to make sense of the loss of my loved one.	CG
40. I have more compassion or empathy for other people who have suffered losses.	AG
41. I find myself longing for the person who passed on.	CG
42. I draw strength from my family and community to help me with my grief.	AG
43. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	CG
44. Since my loss, I have reevaluated what is important in life.	AG
45. Since my loss, I have found new opportunities to help others and serve my community.	AG

Note. CG = complicated grief, AG = adaptive grief

Discussion

The current study's goal was to examine the clarity and cultural appropriateness of items generated in Study One for the Indigenous Grief Inventory. In this study, six participants from Study One and 11 new participants were recruited to provide additional feedback on the pooled items for the culturally adapted Indigenous Grief Inventory. In doing this, participants from Study One could view the items edited or generated based on their interviews and confirm that

the items reflected the themes they discussed. The addition of new participants from both community and academic backgrounds ensured items were not only reflective of the experiences of participants in Study One but relevant to other audiences as well.

Similar to the concerns raised in Study One, items related to memories and communication with the deceased were identified as an area of concern. In the original ICG, items related to communication with the deceased and distressing memories of the deceased were viewed as indicative of complicated grief symptoms (Prigerson et al., 1995). In Study One, participants indicated that such memories and communications are normal and could be positive or negative, depending on the nature of the communications. This finding was partially supported by other research studies conducted with AI/AN people who indicated that having encounters with the deceased either through dreams or visions were normal, generally positive experiences (Dennis & Washington, 2018; Walker & Thompson, 2009). To address this cultural disconnect, items were added to capture both negative and positive aspects of memories and communication. In the current study, negatively phrased questions received low cultural appropriateness and comprehension scores. Ultimately, items reflecting negative aspects of memories and communication were deemed inappropriate for inclusion in the Indigenous Grief Inventory and only the positively framed items were retained. This finding supports the need for item pretesting following the item generation phase. Without the participants' feedback in the current study, inappropriate items from Study One may have been included in the measure.

CHAPTER FOUR

STUDY THREE: PSYCHOMETRIC EVALUATION

Based on Study Two's findings, the Indigenous Grief Inventory was revised, and the resulting 45 item measure was administered to a sample of 600 AI/AN participants over the age of 18 who had experienced a significant loss of a person close to them. An exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA) were conducted using separate randomly selected samples from the survey data to determine the appropriate factor structure of the culturally adapted measure. Items were trimmed following these analyses, resulting in the final Indigenous Grief Inventory. Additional analyses were conducted to examine the convergent and discriminant validity of the revised measure.

MethodParticipants

Participants were 600 AI/AN people from across the United States ranging in age from 18-79 ($M = 39.31$, $SD = 14.26$). The majority of the sample identified as female ($n = 425$, 70.8%) and male ($n = 156$, 26%), but other genders were also represented ($n = 19$, 3.2%). Most participants reporting not having a college degree ($n = 404$, 67.3%) and a yearly income of less than \$30,000 ($n = 334$, 55.7%). Participants reported primarily practicing a Western religion ($n = 324$, 54%), traditional Indigenous spirituality ($n = 158$, 26.3%), other non-Western religions ($n = 9$, 1.5%), and no religious affiliation ($n = 92$, 15.3%). Finally, participants reported participating in traditional Native spiritual ceremonies at least once a month ($n = 189$, 31.5%), less than once a

month ($n = 227$, 37.8%), and never ($n = 184$, 30.7%). See Table 10 for more demographic information.

Table 10. *Study Three Participant Characteristics (n = 600)*

Characteristic	Value
Sex n (%)	
Female	425 (70.8)
Male	156 (26)
Transgender Male	4 (0.7)
Transgender Female	1 (0.2)
Gender Nonconforming	14 (2.4)
Education n (%)	
Less than high school or less than high school equivalent (GED)	50 (8.3)
Completed high school or high school equivalent (GED)	175 (29.2)
Some college, but no degree	179 (29.8)
Completed 2-year junior or community college or trade school	82 (13.7)
Completed 4-year college or university or higher	114 (19)
Yearly Income n (%)	
Less than \$15,000	198 (33)
\$15,000-\$29,999	136 (22.7)
\$30,000-\$59,999	148 (24.7)
\$60,000-\$99,999	72 (12)
More than \$100,000	46 (7.6)
Spiritual, religious, or faith-based affiliation n (%)	
Catholic	59 (9.8)
Protestant	54 (9)
Christian (nondenominational)	192 (32)
Mormon	11 (1.8)
Jewish	8 (1.3)
Muslim	2 (0.6)
Hindu	2 (0.3)
Buddhist	5 (0.8)
Traditional Indigenous Spirituality	158 (23.8)
None	92 (15.3)
Other	17 (2.8)
Frequency of participation in traditional spiritual ceremonies n (%)	
Never	184 (30.7)
Less than monthly	227 (37.8)
Monthly	71 (11.8)
Weekly	52 (8.7)
2-3 times a week	19 (3.2)
4-6 times a week	6 (1)

Measures

Background Information. Participants answered basic background demographic questions (e.g., age and gender) and questions about their spiritual affiliation (“What is your religion or faith-based affiliation, if any?”). Questions about experiences with loss based on the Kaplow et al. (2018) screening tool described in Study One were also included (e.g., “What was your relationship to the person/people you lost in the past two years?”).

Cultural Connection. The 10-item Cultural Connectedness Scale-Short Version (CCS-S; Snowshoe et al., 2017) described in Study One was used to assess participants’ connection to their AI/AN heritage. Five items with a dichotomous response scale (i.e., *yes* or *no*) were given values of 5 for all *yes* responses and values of 1 for *no* responses. The remaining five items were scored on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Item responses were summed for a total score, with higher values indicating greater cultural connection. In addition to the total score, subscale scores for identity, traditions, and spirituality were calculated. Cronbach’s alpha for the full CCS-V was adequate ($\alpha = 0.78$); however, the alpha values for the identity ($\alpha = 0.68$), traditions ($\alpha = 0.59$), and spirituality ($\alpha = 0.46$) subscales were low. Therefore, I decided to use the total CCS-V score in subsequent data analyses.

Indigenous Grief Inventory. The 45-item Indigenous Grief Inventory was used to assess participants’ grief reactions to losing a loved one and their experiences with healing from grief and loss. Measure items assessed aspects of complicated grief (e.g., “I feel that life is meaningless without the person who passed”) and adaptive grief (e.g., “Since my loss, I have

found new opportunities to help others and serve my community”). Participants were asked to think of a loved one whose loss had greatly impacted them and select the response that best described their experience. Response options ranged from 0 (*never*) to 4 (*always*), and at the end of the measure, participants were prompted to indicate who they were thinking of when they answered the questions and when this person had died.

Mental Health Symptoms. The Primary Care PTSD Screening Tool for DSM-5 (PC-PTSD-5; Prins et al., 2016) is a 5-item PTSD screening tool originally designed for use in medical settings. A description of traumatic events was provided, followed by a prompt for participants to indicate whether they had ever experienced such an event (*yes* or *no*). A skip pattern was used such that participants responding no to this screening question did not complete the PC-PTSD-5. Participants who had experienced a traumatic event were prompted to answer five questions about possible trauma symptoms they had experienced within the past month with either *yes* or *no*. For example, “In the past month, have you had nightmares about the event or thought about the event when you did not want to?” Responses were summed for a total score, with scores ranging between 0 and 5. Scores of 3 or greater signify that participants may meet diagnostic criteria for PTSD. Internal consistency for the PC-PTSD-5 in the present sample was good ($\alpha = 0.89$).

The Hospital Anxiety and Depression Scale (HADS; Snaith, 2003) is a 14-item measure used to assess participants’ current symptoms of depression and anxiety. The depression and anxiety subscales are comprised of 7 items each, and participants were asked to rate the extent to which they experienced each symptom in the previous week on a four-point response scale (0-3). Responses are summed to yield a total score for each subscale ranging between 0-21, with scores

greater than 11 signifying a possible clinical diagnosis. Subscales demonstrated good internal consistency in the present sample (depression $\alpha = 0.84$; anxiety $\alpha = 0.85$).

Historical Trauma. The Historical Loss Scale (HLS; Whitbeck et al., 2004b) is comprised of 12 items asking participants to indicate the frequency with which they think about specific historical losses experienced by AI/AN people on a scale from 6 (*several times a day*) to 1 (*never*). Item responses are summed to yield a total historical loss score, with higher scores indicating greater historical trauma. The HLS demonstrated good internal consistency in the present sample ($\alpha = 0.95$).

Substance Use Problems. The Alcohol Use Disorders Identification Test-Consumption (AUDIT-C; Bradley et al., 2007) is a brief version of the 10-item self-report AUDIT screening tool for hazardous drinking originally developed by the World Health Organization (Saunders et al., 1993). The three items comprising the AUDIT-C include estimates of quantity and frequency of alcohol use and frequency of binge drinking (i.e., six or more drinks in one sitting). Participants were asked to review a description of a standard drink (i.e., 12 oz. of regular beer or hard seltzer, 8-9 oz. of craft beer, 4-5 oz. of wine, or 1.5 oz. of hard liquor) as well as images depicting a standard drink. Items are scored from 0 to 6 and responses are summed to yield a total score ranging from 0-18. AUDIT-C scores greater than 5 suggest hazardous drinking. Internal consistency for the AUDIT-C was good ($\alpha = 0.88$).

The Drug Abuse Screening Test (DAST-10; Skinner, 1982) is a 10-item self-report screening tool for problematic drug use in the past 12 months. A description of drug use was provided, as well as clarification that this measure asks about the use of drugs other than alcohol. Participants are asked to respond *yes* or *no* to questions about specific drug use behaviors, with

yes responses coded as 1 and *no* responses coded as 0. All responses are summed to yield a total score ranging from 0 to 10, with higher scores indicating greater likelihood of having a drug problem. Scores greater than three on the measure indicate potentially hazardous drug use behaviors. Cronbach's alpha for the DAST was good ($\alpha = 0.92$).

Procedure

All study materials and modifications were approved by the university's IRB and tribal IRB prior to data collection. Survey measures (see Appendix C) were entered into a Qualtrics web-based survey and then distributed to a sample of AI/AN participants in order to reach a quota of 600 completed responses. All participants were recruited and compensated by a Qualtrics research services project management team. Prior to starting the survey, participants were prompted to read the digital consent form stating that they should only participate in the study if they felt comfortable answering questions about grief and loss, traumatic experiences, and substance use and to click *agree* to give electronic informed consent. A skip pattern was used such that participants who had not experienced a traumatic event did not receive the PC-PSTD-5, those who had not consumed alcohol within the past year did not receive the AUDIT-C, and those who had not used any other drugs in the past year did not receive the DAST. Once participants consented to join the study, they spent approximately 20 minutes completing the assessments.

Data Analysis

Participant Characteristics

Descriptive statistics, bivariate correlations, and linear regressions were conducted in SPSS version 26.0. Prior to data analysis, variables were screened for skewness, kurtosis, and multivariate outliers. Scores on the AUDIT and DAST were both skewed and were transformed using a square root transformation. All other study variables were normally distributed and appropriate for further analysis. There were no missing data across study measures, as the Qualtrics project management team screened out participants who did not complete the entire survey. Participants who reported that they had never experienced a traumatic event, did not use any alcohol within the past year, or did not use any other drugs within the past year received scores of 0 for the PC-PTSD-5, the AUDIT-C, or the DAST, respectively.

Exploratory and Confirmatory Factor Analyses

Using *Mplus*, exploratory and confirmatory factor analyses were conducted on a randomly selected subset of the sample ($n = 300$ for each analysis). An EFA was performed on the preliminary Indigenous Grief Inventory items to group items into a set of factors that represent thematically similar constructs (Tabachnick & Fidell, 2007, Williams et al., 2010). An EFA calculates factor loadings, or correlation coefficients between the individual items and underlying factors, to generate a factor structure. Items with similar factor loadings were grouped under a common factor, and an initial factor structure with the maximum number of possible factors was generated. The EFA was performed using maximum likelihood estimation and a goemin oblique rotation. After an initial analysis, items with factor loadings < 0.30 and cross-

loading items with no strong theoretical explanation were eliminated from the measure (Khan, 2006). Once items were eliminated from the measure, the EFA model was re-estimated with models containing between one and seven-factor solutions. Next, a CFA was conducted to confirm the factor structure of the Indigenous Grief Inventory found with the EFA using data from the remainder of the sample. The adequacy of model fit for the EFA and CFA models were determined by the following criteria: 1) non-significant chi-square (χ^2), 2) confirmatory fit index (CFI) > 0.90, root-mean-square error of approximation (RMSEA) < 0.08, and standardized root-mean-square residual (SRMR) < 0.08 (Tabachnick & Fidell, 2007).

Measurement Invariance

After confirming the factor structure of the Indigenous Grief Inventory, multi-group comparison models were used to test for measurement invariance with demographic and prior experiences with loss variables. Measurement invariance compares participants from various groups using multi-group CFA modeling. Multi-group CFA modeling differs from traditional CFAs. Instead of fitting a model to a specific data set, multi-group CFAs split data sets into specific groups (e.g., female, male) and then fit the model for each group separately. Once group models are fit, multi-group comparisons are made to determine whether participants from different groups interpret the measure items in conceptually similar ways (Bialosiewicz et al., 2013; Milfont & Fischer, 2015). There are three forms of measurement invariance testing: 1) configural invariance, 2) metric invariance, and 3) scalar invariance. Configural invariance tests whether the specified measurement model is a good fit for all groups. Metric invariance tests whether factor loadings are equivalent across groups. Finally, scalar invariance tests whether item intercepts are equivalent across groups (Bialosiewicz et al., 2013; Milfont & Fischer, 2015).

If model fit statistics are identified as non-invariant in either the metric or scalar models, this indicates the presence of non-invariant items between groups. Model non-invariance means that groups cannot be compared, as groups are not responding to items in a conceptually similar way (Byrne, 2013). Problems with item non-invariance can be explored using modification indices, which show item discrepancies across groups. In the current study, multi-group models were specified across age groups (18-35 years, 36-55 years, 56 and older), two gender categories (female and male), cause of loved one's death (illness and accident), time since the loss of a loved one (less than 1 year, 1-2 years ago, 3 or more years ago), number of funerals attended in the last year (0 funerals and 1 or more funerals), number of loved ones lost in the past two years (1-3 people, 4 or more people), and number of people lost in a person's lifetime (1-3 people, 4-6 people, 7 or more people). These groups were selected as past research found that grieving is influenced by gender (e.g., Martin & Doka, 2000), age (e.g., Kersting et al., 2010), and prior experiences with loss (e.g., Stroebe et al., 2004). Measurement invariance was present in the models if the $\Delta CFI < .01$ (Bialosiewicz et al., 2013; Milfont & Fischer, 2015).

Construct Validity

To examine construct validity, bivariate correlations were calculated between the confirmed factors from the Indigenous Grief Inventory and other study variables. Construct validity is comprised of two types of validity: convergent and discriminant validity. Convergent validity is supported when theoretically similar constructs are observed to be similar (i.e., significantly correlated), and discriminant validity is supported when theoretically dissimilar constructs are observed to be dissimilar (i.e., not significantly correlated; Domino & Domino, 2006). Significant positive correlations between the Indigenous Grief Inventory and conceptually

related variables were considered evidence of convergent validity, and nonsignificant correlations between the Indigenous Grief Inventory and conceptually distinct variables were considered evidence of discriminant validity (Domino & Domino, 2006). Finally, linear regression analyses were conducted to explore the relationship between grief as measured by the Indigenous Grief Inventory and historical trauma, mental health symptoms, substance use problems, cultural connectedness, prior experiences with loss, and demographic characteristics.

Results

Prior Experiences with Loss

All participants reported experiencing the loss of someone close to them in the past two years, with 53.5% ($n = 321$) of the sample reporting losing more than one person in this time period (Table 11). Among the losses reported were the death of a guardian or older relative (e.g., father, mother, grandfather, grandmother; $n = 365$, 60.8%), a child or younger relative ($n = 38$; 6.3%), a spouse or significant other ($n = 24$, 4%) and a close peer (e.g., cousin or friend; $n = 106$; 35.3%). Participants reported losing their loved one to illness ($n = 408$, 68%) or sudden/violent death ($n = 187$, 31.2%). Finally, more than half of the participants ($n = 315$, 52.5%) had attended at least one funeral in the past year.

Table 11. *Participant Grief Experience Characteristics* ($n = 600$)

Characteristic	Value
Important people lost in the past two years n (%)	
1	279 (46.5)
2	134 (22.3)
3	55 (9.2)
4	46 (7.7)
5	37 (6.2)
6	16 (2.7)

7	6 (1)
8	3 (0.5)
9	2 (0.3)
10 or more	22 (3.7)

Loss that had the biggest effect on participant *n* (%)

Father	87 (14.5)
Mother	87 (14.5)
Stepfather	7 (1.2)
Stepmother	1 (0.2)
Spouse/ Significant other	24 (4)
Brother	29 (2.8)
Sister	22 (3.7)
Daughter	15 (2.5)
Son	18 (3)
Niece	1 (0.2)
Nephew	4 (0.7)
Grandmother	80 (13.3)
Grandfather	53 (8.8)
Aunt	17 (2.8)
Uncle	30 (5)
Elder	3 (0.5)
Cousin	16 (2.7)
Friend	74 (12.3)
Friend of the Family	16 (2.7)
Other	16 (2.7)

Time since loss of loved one *n* (%)

Less than 1 year	122 (20.3)
More than 1 year	90 (15)
More than 2 years	62 (10.3)
More than 3 years	31 (5.2)
More than 4 years	2 (.03)
More than 5 years	293 (48.8)

Cause of loved one's death *n* (%)

Cancer	126 (21)
Diabetes Related Illness	50 (8.3)
Heart Disease	84 (14)
Liver Disease	25 (4.2)
Kidney Disease	22 (3.7)
Other Illness	101 (16.8)
Accident Involving Drugs or Alcohol	29 (4.8)
Accident Not Involving Drugs or Alcohol	33 (5.5)
Murder/ Homicide	41 (6.8)
Suicide	43 (7.2)
Alcohol or Drug Overdose	31 (5.2)

	Natural Disaster	5 (0.8)
	War	5 (0.8)
	Not Sure	5 (0.8)
Number of funerals attended in the past year <i>n</i> (%)		
	0	285 (47.5)
	1	136 (22.7)
	2	82 (13.7)
	3	42 (7)
	4	20 (3.3)
	5	10 (1.7)
	6	7 (1.2)
	7	5 (0.8)
	8	3 (0.5)
	10 or more	10 (1.7)

Participant Characteristics

Descriptive statistics were calculated for mental health, substance use, cultural connectedness, and historical trauma variables (Table 12). Participants in the study were screened using clinical criterion scores for possible mental health and substance use problems. Anxiety scores suggest clinically significant anxiety for approximately half of the sample ($n = 309$, 50.5%) while only about a quarter ($n = 155$, 25.8%) of participants' depression scores suggested likely depression. Most participants in the study ($n = 427$, 71.2%) reported experiencing a traumatic event (e.g., a serious accident, physical or sexual abuse, a natural disaster, war) in their lifetime. Of the people who reported experiencing a traumatic event, more than half ($n = 227$, 53.2%) had scores on the PC-PTSD-5 suggesting likely PTSD. Substance use screener questions revealed that 68.2% ($n = 409$) of the sample used alcohol and 37.8% ($n = 227$) used illicit drugs or reported non-medical use of prescription drugs in the past year. For those who used alcohol, AUDIT-C scores suggested that approximately half of those who consumed alcohol in the past year ($n = 207$, 50.6%) were drinking at a potentially hazardous level. DAST

scores suggested that most people who used illicit drugs ($n = 191$, 84.1%) were doing so at potentially dangerous levels. Finally, cultural connectedness scores ranged from 10-50 ($M = 26.25$, $SD = 8.09$), and historical trauma scores ranged from 12-72 ($M = 37.64$, $SD = 15.53$).

Table 12. *Study Three Descriptive Statistics*

	<i>M</i>	<i>SD</i>	Median	Min.-Max.
Anxiety	10.57	5.01	11	0-21
Depression	5.83	3.37	6	0-15
PTSD	2.33	2.05	2.50	0-5
Alcohol Use Problems	4.82	4.41	3	0-18
Drug Use Problems	2.99	2	0	0-10
Cultural Connectedness	36.25	8.09	37	10-50
Historical Trauma	37.64	15.23	36	12-72

Note. Clinical cutoff scores: anxiety scores > 11 , depression scores > 11 , PTSD scores > 3 , alcohol use problems scores > 5 , drug use problems scores > 3 .

Exploratory Factor Analysis

A random sample of 300 participants was selected from the full data set to conduct the EFA. To be appropriate for an EFA, all initial study items need to have a Kaiser-Meyer-Olkin (KMO) value greater than .90 and statistically significant Bartlett's test of sphericity (Tabachnick & Fidell, 2007; Williams et al., 2010). The 45 items comprising the preliminary Indigenous Grief Inventory had a KMO value of 0.93 and a significant Bartlett's test of sphericity ($\chi^2 = 7597.78$, $p < .000$) indicating the items were appropriate for factor analysis. An initial EFA revealed that eight items had factor loadings < 0.30 and five items did not have a clear factor structure or loaded on more than one factor. Upon review, these items were removed from the item pool, and a new EFA model was estimated with the remaining 32 items. Fit statistics for EFA models estimating one to seven factors for the Indigenous Grief Inventory are presented in Table 13.

Table 13. *Model Fit Estimates from the Indigenous Grief Inventory Exploratory Factor Analysis*

Model	χ^2 (df)	CFI	TLI	RMSEA [90% CI]	SRMR	$\Delta\chi^2$ (df)	Δ CFI
1 factor	2037.530 (464)	0.666	0.643	.120 [0.102-0.112]	0.126		
2 factors	1063.620 (433)	0.886	0.847	0.070 [0.064-0.075]	0.052	973.910 (31)*	0.220
3 factors	822.350 (403)	0.911	0.894	0.059 [0.053-0.065]	0.040	241.270 (30)*	0.025
4 factors	639.370 (374)	0.931	0.924	0.043 [0.042-0.055]	0.032	182.980 (29)*	0.020
5 factors	527.705 (346)	0.945	0.945	0.042 [0.035-0.049]	0.027	111.665 (28)*	0.016
6 factors	444.365 (319)	0.957	0.959	0.036 [0.028-0.044]	0.024	83.34 (27)*	0.012
7 factors	382.355 (293)	0.965	0.967	0.032 [0.022-0.040]	0.022	62.010 (26)*	0.008

Note. The four-factor solution was selected as the best fit for the Indigenous Grief Inventory. However, factor one and factor two in this model were highly correlated and represented theoretically similar constructs; therefore, they were merged into a single factor. Thus, a three-factor model solution was selected for the measure.

While models with five, six, and seven factors appeared to be a better fit for the data, meaningful concepts could not be derived from the additional factors. For example, the additional three factors were highly correlated with factors in the four-factor model and two of these factors were comprised of only two items. EFA guidelines suggest that factors should be comprised of more than two items in order to accurately capture a concept. The four-factor solution provided the most parsimonious model and was a good fit for the data, $\chi^2(373) = 639.37$, CFI = .93, TLI = .92, RMSEA = 0.05 [0.04-0.06], SRMR = .03. After reviewing the EFA results and item loadings, factors one and two were found to be highly correlated ($r = 0.72$) and appeared to be conceptually similar. Therefore, I decided to merge factors one and two and retained a three-factor model. The three-factor model had an adequate model fit, $\chi^2(403) = 822.35$, CFI = .91, TLI = .89, RMSEA = 0.06 [0.05-0.07], SRMR = .04, that was statistically

better than the two-factor model $\Delta CFI > .01$. Standardized factor loadings for the three-factor model are presented in Table 14. The three-factor model was comprised of items related to complicated grief (19 items, $\alpha = .946$), memories and communication with the deceased (5 items, $\alpha = .735$), and adaptive grief (8 items, $\alpha = .838$).

Table 14. *Factor Loadings from the Exploratory Factor Analysis for the Indigenous Grief Inventory*

Items	1	2	3
I blame myself for the loss of my loved one.	0.473	0.011	0.033
I feel that life is meaningless without the person who passed.	0.727	-0.004	0.096
I feel resentful about my loss.	0.647	-0.009	0.074
I feel guilty for feeling happy or living a good life after my loss.	0.617	-0.034	0.125
I feel like the sadness or heartbreak from this loss will last forever.	0.641	0.142	-0.016
I stopped taking care of myself since my loved one passed on.	0.789	-0.041	-0.016
I think about this person so much that it's hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).	0.780	0.034	0.048
Ever since my loss, I have had a hard time caring about other people.	0.667	-0.006	-0.119
Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	0.622	0.008	0.214
I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	0.681	0.106	-0.067
I worry that I am not grieving in the way I am supposed to.	0.615	-0.014	-0.028
I feel numb or empty, or like I don't recognize my own emotions since my loss.	0.804	0.015	-0.089
I feel I have lost control of my life since my loved one passed on.	0.779	-0.031	-0.077
I go out of my way to avoid reminders of the person I lost.	0.674	0.185	0.139
I am afraid of burdening others with my feelings of grief.	0.549	0.118	-0.090
Since my loss, I have distanced myself (emotionally or physically) from friends and family.	0.674	0.050	0.223
I feel lonely a great deal of the time ever since the loss of my loved one.	0.796	0.032	0.120
I am struggling to make sense of the loss of my loved one.	0.752	-0.024	0.013
I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	0.748	-0.069	0.123
Remembering or talking about the person who passed brings me comfort.	0.054	0.551	0.001

I find peace when I communicate with my loved one who passed during prayer or ceremony.	0.003	0.793	0.072
I welcome visits from my loved one who passed in my dreams or visions.	0.059	0.633	0.220
I feel drawn to places and things connected with the person who passed on.	0.007	0.552	0.022
I often remember funny stories about the person who passed.	0.020	0.419	0.419
I am reconnecting with my family or community since my loss.	-0.006	0.044	0.628
I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.	-0.023	0.124	0.333
I have strengthened my relationship with the Creator or God since my loss.	0.025	0.272	0.403
I have found comfort in church, ceremony, or other cultural traditions since my loss.	0.139	0.196	0.593
Since my loss, I have become more involved and connected with my family or community.	0.024	0.046	0.774
I draw strength from my family and community to help me with my grief.	-0.036	0.002	0.716
Since my loss, I have found new opportunities to help others and serve my community.	0.016	0.127	0.637

Note. Factor 1 = complicated grief, Factor 2 = memories and communication, and Factor 3 = adaptive grief.

Confirmatory Factor Analysis

A CFA was performed with data from the remaining 300 participants who were not included in the EFA. The CFA was used to confirm the three-factor model found with the EFA. The CFA results showed that the fit of the three-factor model was poor, $\chi^2(461) = 1312.93$, CFI = .83, TLI = .82, RMSEA = 0.08 [0.07-0.08], SRMR = .08. To improve the fit of the model, the memory and communication factor was tested as a second order factor with the complicated grief and adaptive grief factors. The memory and communication factor did not load onto either complicated grief or adaptive grief and was positively associated with both factors. Based on this finding, and in light of the qualitative data reported in Study One (i.e., that memories and communication with the deceased could be signs of either adaptive or complicated grief

depending on the circumstances), the memory and communication factor was removed and a two-factor model consisting of 19 complicated grief items and seven adaptive grief items was retained for testing. Results showed that the model fit was greatly improved, and the two-factor model was a good fit for the data, $\chi^2(298) = 770.33$, CFI = .95, TLI = .94, RMSEA = 0.05 [0.04-0.05], SRMR = .03 (Table 15).

Table 15. *Standardized Factor Loadings from the Confirmatory Factor Analysis of the Indigenous Grief Inventory*

Items	Complicated Grief	Adaptive Grief
	1	2
I blame myself for the loss of my loved one.	0.545	
I feel that life is meaningless without the person who passed.	0.688	
I feel resentful about my loss.	0.631	
I feel guilty for feeling happy or living a good life after my loss.	0.567	
I feel like the sadness or heartbreak from this loss will last forever.	0.671	
I stopped taking care of myself since my loved one passed on.	0.752	
I think about this person so much that it's hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).	0.762	
Ever since my loss, I have had a hard time caring about other people.	0.679	
Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	0.641	
I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	0.715	
I worry that I am not grieving in the way I am supposed to.	0.668	
I feel numb or empty, or like I don't recognize my own emotions since my loss.	0.828	
I feel I have lost control of my life since my loved one passed on.	0.747	
I go out of my way to avoid reminders of the person I lost.	0.500	
I am afraid of burdening others with my feelings of grief.	0.606	
Since my loss, I have distanced myself (emotionally or physically) from friends and family.	0.757	
I feel lonely a great deal of the time ever since the loss of my loved one.	0.799	
I am struggling to make sense of the loss of my loved one.	0.747	

I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	0.761
I am reconnecting with my family or community since my loss.	0.450
I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.	0.644
I have strengthened my relationship with the Creator or God since my loss.	0.642
I have found comfort in church, ceremony, or other cultural traditions since my loss.	0.757
Since my loss, I have become more involved and connected with my family or community.	0.771
I draw strength from my family and community to help me with my grief.	0.659
Since my loss, I have found new opportunities to help others and serve my community.	0.727

Note. All factor loadings were significant at $p < .001$

The full Indigenous Grief Inventory had good internal consistency (26 items, $\alpha = .899$). The complicated grief (19 items, $\alpha = .945$) and adaptive grief (7 items, $\alpha = .834$) subscales also demonstrated good internal consistency. The two-factor model was retained for further analyses (Table 16).

Table 16. *Descriptive Statistics for the Indigenous Grief Inventory (N = 600)*

Items	<i>M</i>	<i>SD</i>	Median	Min.- Max
1. I blame myself for the loss of my loved one.	1.17	0.94	1	0-4
2. I feel that life is meaningless without the person who passed.	1.41	1.18	1	0-4
3. I feel resentful about my loss.	1.52	1.24	2	0-4
4. I feel guilty for feeling happy or living a good life after my loss.	1.44	1.24	1	0-4
5. I feel like the sadness or heartbreak from this loss will last forever.	2.43	1.33	2	0-4
6. I stopped taking care of myself since my loved one passed on.	1.24	1.17	1	0-4
7. I think about this person so much that it's hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).	1.44	1.19	1	0-4

8. Ever since my loss, I have had a hard time caring about other people.	1.20	0.93	1	0-4
9. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.	1.41	1.14	1	0-4
10. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).	1.41	1.12	1	0-4
11. I worry that I am not grieving in the way I am supposed to.	1.47	1.28	2	0-4
12. I feel numb or empty, or like I don't recognize my own emotions since my loss.	1.68	1.16	2	0-4
13. I feel I have lost control of my life since my loved one passed on.	1.38	1.13	1	0-4
14. I go out of my way to avoid reminders of the person I lost.	1.18	0.92	1	0-4
15. I am afraid of burdening others with my feelings of grief.	2.25	1.43	2	0-4
16. Since my loss, I have distanced myself (emotionally or physically) from friends and family.	1.80	1.21	2	0-4
17. I feel lonely a great deal of the time ever since the loss of my loved one.	1.94	1.33	2	0-4
18. I am struggling to make sense of the loss of my loved one.	1.84	1.36	2	0-4
19. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.	1.58	1.35	2	0-4
20. I am reconnecting with my family or community since my loss.	1.86	1.24	2	0-4
21. I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.	2.36	1.12	2	0-4
22. I have strengthened my relationship with the Creator or God since my loss.	2.25	1.36	2	0-4
23. I have found comfort in church, ceremony, or other cultural traditions since my loss.	1.70	1.37	2	0-4
24. Since my loss, I have become more involved and connected with my family or community.	1.82	1.19	2	0-4
25. I draw strength from my family and community to help me with my grief.	1.89	1.26	2	0-4
26. Since my loss, I have found new opportunities to help others and serve my community.	1.68	1.21	2	0-4

Measurement Invariance

Multi-group models were used to test whether the Indigenous Grief Inventory measurement model varied by age, gender, cause of death, time since loss, funerals attended in

the past year, past two-year losses, and lifetime losses (Table 17). The multi-group comparisons supported metric invariance across all variables with $\Delta\text{CFI} < .01$. Multi-group comparisons also supported scalar invariance for all variables except the cause of death variable, which had a $\Delta\text{CFI} > .01$. A closer inspection of the modification indices for this model revealed that the intercepts for items 8 (“Ever since my loss I have had a hard time caring about other people”), 9 (“Since my loss, I have been using alcohol/drugs or other behaviors to numb my feelings”), and 16 (“Since my loss, I have distanced myself emotionally from friends and family”) appeared to be responsible for the scalar model non-invariance across groups. Overall, measurement invariance was found for the Indigenous Grief Inventory measurement model across demographics and prior experiences with loss.

Table 17. *Model fit Indices for Measure Invariance Multi-Group Models*

Model	$\chi^2(df)$	CFI	TLI	RMSEA [90% CI]	SRMR	$\Delta \chi^2(df)$	ΔCFI
Gender Configural	1933.24 (894)	.875	.864	.07 [.07, .08]	.07		
Gender Metric	1969.88 (942)	.876	.872	.07 [.07, .08]	.07	36.64 (48)	.001
Gender Scalar	2045.66 (990)	.873	.875	.07 [.07, .08]	.07	75.78 (48)*	.002
Age Configural	1866.67 (894)	.882	.872	.07 [.07, .08]	.06		
Age Metric	1906.12 (942)	.883	.879	.07 [.07, .08]	.07	39.45 (48)	.001
Age Scalar	1969.93 (990)	.881	.883	.07 [.07, .08]	.07	63.81 (48)	.002
Cause of Death Configural	1902.92 (894)	.877	.866	.08 [.07, .08]	.07		
Cause of Death Metric	1946.19 (942)	.878	.873	.07 [.07, .08]	.07	43.27 (48)	.001
Cause of Death Scalar	2070.15 (990)	.868	.870	.07 [.07, .08]	.07	123.97 (48)*	.010
Time Since Loss Configural	3456.57 (894)	.740	.717	.12 [.12, .12]	.06		
Time Since Loss Metric	3502.83 (942)	.741	.732	.12 [.12, .12]	.07	46.25 (48)	.001
Time Since Loss Scalar	3540.62 (990)	.742	.746	.12 [.11, .12]	.07	37.79 (48)	.001
Funerals Attended Configural	1450.19 (569)	.895	.886	.07 [.06, .07]	.06		
Funerals Attended Metric	1472.79 (620)	.895	.891	.07 [.06, .07]	.06	22.59 (24)	<.001
Funerals Attended Scalar	1500.63 (644)	.896	.894	.07 [.06, .07]	.06	27.85 (24)	.001
2-year Loss Configural	1406.86 (596)	.892	.883	.07 [.06, .07]	.06		
2-year Loss Metric	1424.32 (620)	.892	.891	.07 [.06, .07]	.06	17.45 (24)	<.001
2-year Loss Scalar	1455.65 (644)	.893	.888	.07 [.06, .07]	.06	31.34 (24)	.001
Lifetime Loss Configural	1464.58 (596)	.893	.884	.07 [.06, .07]	.06		
Lifetime Loss Metric	1483.06 (620)	.893	.892	.07 [.06, .07]	.06	18.47 (24)	<.001
Lifetime Loss Scalar	1512.85 (644)	.894	.889	.07 [.06, .07]	.06	29.79 (24)	.001

Note. * $p < .05$. Age coded 1 = 18-35, 2 = 36-55, 3 = 55 or older; gender coded 1 = female, 2 = male; cause of death coded 1 = illness related, 2 = accident related; time since loss coded 1 = less than 1 year, 2 = 1 to 2 years, 3 = 3 or more years; funerals attended coded 1 = 0 funerals, 2 = 1 or more funerals; 2-year losses coded 1 = 1-3 people, 2 = 4 or more; lifetime losses coded 1 = 1-3 people, 2 = 4-6 people, 3 = 7 or more people.

Construct Validity of the Indigenous Grief Inventory

Correlations were calculated between the complicated grief and adaptive grief subscales and other study variables (Table 18). Complicated grief was negatively associated with adaptive grief ($r = -.11, p < .01$), cultural connectedness ($r = -.19, p < .01$), and time since loss ($r = -.22, p < .01$). Convergent validity for the complicated grief subscale was demonstrated by significant associations with anxiety ($r = .60, p < .01$), depression ($r = .47, p < .01$), alcohol use problems ($r = .18, p < .01$), drug use problems ($r = .30, p < .01$), historical trauma thoughts ($r = .32, p < .01$), number of losses in the past two years ($r = .19, p < .01$), and number of losses across the lifetime ($r = .22, p < .01$). Complicated grief was not significantly correlated with age or gender. Discriminant validity for the complicated grief subscale was demonstrated by nonsignificant correlations with PTSD symptoms and number of funerals attended in the past year.

Convergent validity for the adaptive grief subscale was demonstrated by significant positive associations with cultural connectedness ($r = .45, p < .01$) and time since most significant loss ($r = .12, p < .05$). There also were significant negative associations with anxiety ($r = -.19, p < .05$), depression ($r = -.12, p < .05$), alcohol use problems ($r = -.13, p < .05$), drug use problems ($r = -.12, p < .05$), and historical trauma thoughts ($r = -.25, p < .01$). Adaptive grief was not correlated with age or gender. Discriminant validity for the adaptive grief subscale was demonstrated by nonsignificant correlations with PTSD symptoms, number of funerals attended in the past year, number of losses in the past two years, and number of losses across the lifetime. In sum, both the complicated grief and adaptive grief subscales showed evidence of convergent and discriminant validity through theoretically supported associations with other study variables, supporting the construct validity of the Indigenous Grief Inventory.

Table 18. *Study Three Variable Correlations*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	14	15	16
1. Complicated Grief	1														
2. Adaptive Grief	-.11**	1													
3. Anxiety	.60**	-.19*	1												
4. Depression	.47**	-.12*	.69**	1											
5. PTSD	.05	.04	.60**	.47**	1										
6. Alcohol Use Problems	.18**	-.13*	.27**	.20**	.18**	1									
7. Drug Use Problems	.30**	-.12*	.29**	.27**	.30**	.34**	1								
8. Cultural Connection	-.19**	.45**	.12**	.04	.19*	.13**	.12**	1							
9. Historical Trauma	.32**	-.25**	.32**	.25**	.36**	.16**	.12**	.45**	1						
10. Funerals Attended	.01	.04	.09*	.11**	.11**	.06	.001	.23**	.16**	1					
11. Loss in Past 2 Years	.09*	.02	.09*	.08*	.07	.09*	.09*	.22**	.13**	.39**	1				
12. Loss in Lifetime	.19**	.07	.01	.01	.07	.08	.06	.18**	.08*	.19**	.41**	1			
14. Time Since Loss	-.22**	.12*	-.05	-.05	-.03	-.03	.02	-.001	-.06	.05	.05	.08	1		
15. Age	-.09	.04	-.23**	-.14**	-.21**	-.11*	-.12**	-.02	-.13**	-.02	-.007	.24**	.09*	1	
16. Gender	-.10	-.01	.03	.05	.05	.04	.11**	-.003	.10**	.03	.07	.001	.05	.06	1

Note. $p < .05^*$, $p < .01^{**}$. Gender was coded as 1 = female and 2 = male; other genders were excluded due to low sample size.

Variables Predicting Indigenous Grief Inventory Factors

Linear regression analyses were conducted to better understand the associations between the Indigenous Grief Inventory subscales and mental health, substance use, prior experiences with loss, and demographic characteristics (Table 19). Complicated grief was significantly associated with greater anxiety symptoms ($\beta = 0.10, p < .01$), depressive symptoms ($\beta = 0.08, p < .01$), alcohol use problems ($\beta = 0.19, p < .01$), drug use problems ($\beta = 0.14, p < .01$), historical trauma thoughts ($\beta = 0.07, p < .05$), loss in the past two years ($\beta = 0.09, p < .01$), and loss across the lifetime ($\beta = 0.11, p < .01$). Complicated grief was also significantly associated with lower cultural connection ($\beta = -0.07, p < .05$) and less time since the loss of a loved one ($\beta = -0.11, p < .01$). Adaptive grief was significantly associated with less anxiety symptoms ($\beta = -0.07, p < .05$), alcohol use problems ($\beta = -0.17, p < .05$), drug use problems ($\beta = -0.14, p < .05$), and funerals attended in the past year ($\beta = -0.10, p < .05$). Finally, adaptive grief was associated with greater cultural connection ($\beta = 0.07, p < .05$). Neither subscale was significantly associated with age or gender.

Table 19. *Variables Predicting Complicated Grief and Adaptive Grief*

	Indigenous Grief Inventory					
	Complicated Grief			Adaptive Grief		
	β	B	SE	β	B	SE
Anxiety	0.10**	0.35	0.14	-0.07*	-1.65	0.05
Depression	0.08*	0.39	0.21	0.02	0.03	0.08
PTSD	-0.03	-0.43	0.66	0.002	0.007	0.24
Alcohol Use Problems	0.19**	3.23	0.10	-0.17*	0.09	0.07
Drug Use Problems	0.14**	2.67	0.09	-0.14*	1.69	0.07
Cultural Connectedness	-0.07*	-0.16	0.09	0.07*	1.14	0.03
Historical Trauma Thoughts	0.07*	0.08	0.05	0.10	0.004	0.02
Funerals Attended	-0.01	-0.05	0.36	-0.10*	-0.45	0.92
Loss in Past 2 Years	0.09**	2.84	1.26	0.02	0.19	0.47
Loss in Lifetime	0.19**	4.01	0.89	0.06	0.46	0.33

Time Since Loss	-0.11**	0.87	0.33	-0.001	-0.002	0.12
Age	0.17	0.09	0.05	0.05	0.02	0.02
Gender	-0.09	-2.10	0.92	-0.01	-0.11	0.34

Note. ** $p < .01$, * $p < .05$. Gender was coded as 1 = female and 2 = male; other genders were excluded due to low sample size.

Discussion

The current study aimed to: 1) determine the factor structure of the culturally adapted grief measure, 2) examine measurement invariance, and 3) evaluate the construct validity of the new measure (see Appendix D for the final Indigenous Grief Inventory). Initially, the EFA results suggested a three-factor model was the best fit for the data; however, after performing the CFA, the memories and communication factor was removed to improve model fit. Similar to findings from Study One and Study Two, memories of the deceased were found to be neither exclusively adaptive nor maladaptive for AI/AN people in the study; rather, the memories and communication factor was positively associated with both complicated and adaptive grief. As suggested by qualitative data from earlier phases of this study, memories of the deceased and communication with loved ones who have passed on may be positive or negative, depending on the circumstances and the nature of those memories and communications. This suggests that questions about memories and communication are not capturing elements of complicated or adaptive grief alone. This could also indicate that this factor represents a culture-bound phenomenon and may reflect greater enculturation rather than grief reactions. More research is needed to understand the role of memories and communication with the deceased in the grieving process for AI/AN people.

The final measurement model for the Indigenous Grief Inventory was comprised of two factors, complicated grief and adaptive grief. Multi-group CFA models demonstrated overall measure invariance for this two-factor model, meaning factors are comparable across groups and between-group comparisons in Indigenous Grief Inventory scores can be made. The final 26-item Indigenous Grief Inventory demonstrated good internal consistency and construct validity. Tests of convergent validity revealed significant associations in the expected direction between complicated grief, anxiety, depression, substance use, and historical trauma. PTSD symptoms, however, were unassociated with complicated grief, providing evidence of discriminant validity. This finding is contrary to other studies that found positive associations between PTSD symptoms and complicated grief (Kaplow et al., 2018; Kristensen et al., 2012; Stroebe et al., 2007). One possible explanation for the nonsignificant relationship between PTSD symptoms and complicated grief could be attributed to the PTSD measure used in the current study. The 5-item Primary Care PTSD Screening Tool was used in place of the full 20-item Posttraumatic Checklist, which could account for the findings. Another possible explanation for this finding is that the complicated grief items in the Indigenous Grief Inventory are not capturing “traumatic” grief, but rather typical experiences of grief that may not be pathological in this population. Also, previous research with the ICG was conducted with clinical samples (Kaplow et al., 2018); the use of a community sample in the present research also may explain this finding. Further research is needed to understand how pathological or traumatic grief symptoms present in AI/AN communities compare to other populations where symptoms of complicated grief overlap with PTSD symptoms.

For the adaptive grief subscale, convergent validity was demonstrated through significant negative associations with complicated grief, anxiety, depression, substance use, and historical trauma. PTSD symptoms were also unassociated with adaptive grief in this sample, providing evidence of discriminant validity. The finding that both complicated and adaptive grief subscales are correlated with anxiety, depression, alcohol problems, and drug problems in the expected direction suggests that this measure could be useful in future studies examining these mental health problems among AI/AN people.

The positive association between complicated grief and historical trauma supports research related to the historical trauma response, which theorizes that descendants of historically traumatized groups can manifest mental health problems and experience symptoms of survivor's guilt related to past cultural traumas (Brave Heart, 1998; Evans-Campbell, 2008). This suggests that greater historically unresolved grief could compound contemporary grief experiences, making coping with current losses more challenging. This is further supported by the negative relationship between historical trauma and adaptive grief. People who have less historically unresolved grief could be better able to cope with current losses. Conversely, people who are better able to cope with current loss may develop skills that help them cope with historical loss as well. Grief interventions aimed at addressing current losses among AI/AN people may benefit from including elements from historical trauma interventions (e.g., Brave Heart, 1999a/b) to address historically unresolved grief and contemporary grief concurrently.

Cultural connectedness was positively associated with adaptive grief, lending support to findings from Study One. Participants in the interviews indicated that connecting to their Native culture helped them cope with loss. For Native people, connection to traditional spirituality is a

key aspect of cultural connectedness. Research conducted on grieving and religion found that involvement in religious practices can give people outlets to cope with their loss and access to a social support network (Becker et al., 2007; Hawthorne et al., 2016; Matthews & Marwit, 2006). Adhering to traditional spiritual and cultural practices may be similarly helpful for coping with loss. Native people who observe traditional spiritual ceremonies have a built-in social support network in their community. Observing traditions related to grief (e.g., one year of mourning, wiping of the tears ceremony at the end of the year) can give people a script for coping with loss and a way to find meaning in loss. As participants in Study One reported feeling lost in grief, it is possible that a greater connection to culture could provide guidance and support for coping with loss and growing from grief.

While cultural connectedness was associated with less complicated grief and more adaptive grief, it was also associated with more anxiety, PTSD, historical trauma, alcohol problems, drug problems, more losses in a lifetime, more losses in the past 2 years, and more funerals attended in the past year. A possible explanation for the association between cultural connectedness and greater losses is that a major part of AI/AN culture is having extended kinship networks comprised of relatives who may or may not be biologically related (Mohatt et al., 2004 a/b). Having an extended kinship network increases the risk of losing a family member, as the definition of family in Native communities is broad, and the loss of one person can affect the entire community (Skewes et al., 2020; Stumblingbear-Riddle et al., 2012). Furthermore, health inequities in Native communities (e.g., substance use problems, suicide) are associated with early deaths, meaning people experience many losses, including traumatic losses of young people (Dankovchik et al., 2015; IHS, 2018). It may be that connection to Native culture is a marker for

living in a Native community, which unfortunately may result in greater losses and in turn may lead to poor mental health outcomes. Further research is needed to test the possible mediating or moderating roles of grief and loss on the relationship between cultural connectedness, mental health, and substance use problems.

Putting complicated grief and adaptive grief into context with prior experiences of loss, complicated grief was associated with more lifetime losses, more losses in the past two years, and less time since the loss of an important person. Greater adaptive grief was associated with more time since the loss of an important person. These findings suggest that struggling with grief is related to the amount of loss a person experiences, but the amount of loss is not related to learning and growing from grief. Stated differently, frequent losses make it difficult to heal and grow, as there often is not sufficient time since one's loss for complicated grief to transform into adaptive grief. Growth following the loss of a loved one is more likely with the passage of time but is not an automatic experience for most people—especially when losses seem to be constant.

Interestingly, the number of funerals attended in the past year was not associated with complicated or adaptive grief. Funeral attendance was associated with greater anxiety, depression, PTSD, cultural connectedness, and historical trauma, however. It seems that funeral attendance may not be a good indicator of the amount of loss experienced. It is likely that people attend funerals for many reasons, including as a way to engage with Native culture and support others in their community. It could be that attending funerals is an indicator of cultural connectedness rather than complicated or adaptive grief. However, findings regarding associations between funeral attendance and other outcomes should be interpreted with caution,

as these data were collected during the COVID-19 pandemic, which disrupted typical burial practices.

CHAPTER FIVE

GENERAL DISCUSSION

The aim of the current dissertation project was to: 1) work with AI/AN community members to culturally adapt the Inventory of Complicated Grief (ICG) and Posttraumatic Growth Inventory (PTGI) to create a new, culturally resonant measure of grief, and 2) test the psychometric properties of the resulting Indigenous Grief Inventory. A community-based participatory research (CBPR) framework was used to culturally adapt and evaluate the new measure across 3 separate studies. The goal of the cultural adaptation study was to examine measure equivalence in the domains of 1) conceptual equivalence, 2) semantic equivalence, 3) operational equivalence, 4) item equivalence, 5) measurement equivalence, and 6) functional equivalence (Baker et al., 2010).

In Study One, interviews were conducted with 12 AI reservation-dwelling community members to evaluate the conceptual, semantic, and operational equivalence of the existing measure items and to generate new items for inclusion in the measure. Participants identified several indicators of grieving and healing in the ICG and PTGI that reflected their experiences and were relevant and applicable to this group. However, participants also identified important cultural aspects of grief not captured in the existing measures. For example, communication with the deceased was seen as normal and generally positive for AI people, but was conceptualized as maladaptive in the ICG. Study findings supported the claim that a culturally adapted measure of grief was needed for AI people.

Study Two aimed to pretest the items generated in Study One and examine the clarity and cultural appropriateness of the items. Ten community members, six of whom participated in Study One, and seven academic researchers and mental health practitioners were asked to review each item and rate its clarity and cultural acceptability. This step helped ensure that the adaptations made in Study One reflected the themes that emerged from the interview data. Participants in Study Two indicated that cultural adaptations that aimed to capture negative aspects of memories and communication with the deceased were not culturally appropriate. Therefore, negatively worded items were removed, and only items assessing positive aspects of memories and communication were retained for psychometric testing.

Finally, in Study Three, the measurement and functional equivalence of the Indigenous Grief Inventory was examined with a sample of 600 AI/AN people. To assess the Indigenous Grief Inventory's psychometric properties, the adapted measure, along with measures of mental health, substance use, and cultural factors, was administered in a web-based survey. An exploratory analysis of the Indigenous Grief Inventory's factor structure initially identified three unique factors that were labeled complicated grief, memories and communication, and adaptive grief. Upon further examination, the memories and communication factor was removed from the final measure, as this factor was positively associated with both complicated grief and adaptive grief. The goal of the current measurement adaptation project was to develop an assessment tool that could help identify when people were not coping well with grief and when people were healing from losing a loved one. Therefore, after careful consideration, the memories and communication factor was removed from the Indigenous Grief Inventory as it was not reflective

of this goal. The final two-factor model was a good fit for the data and the Indigenous Grief Inventory demonstrated good internal consistency, convergent validity, and discriminant validity.

Strengths and Limitations

The current project is the first measurement development study to culturally adapt a quantitative measure of grief for Native communities. Using both qualitative and quantitative methods, participants provided insight into their experiences with grief and loss and provided valuable feedback on the proposed measure items. The feedback provided in Studies One and Two ensured that the Indigenous Grief Inventory items were reflective of AI/AN experiences with grief and healing after losing a loved one. In Study Three, this newly developed measure's factor structure and psychometric properties were analyzed in a large sample of AI/AN people from across the United States.

A major strength of this research project was its grounding in a CBPR framework and focus on a community-derived research question. Through the course of an ongoing CBPR research project focused on substance use, community partners identified grief from recent losses as contributors to substance use problems among their people. As this research question originated from the community, participants were enthusiastic about the topic, which represented a highly relevant concern. This sense of enthusiasm and ownership of the project facilitated the recruitment of this often hard-to-reach sample of Native participants. While community partners were enthusiastic about studying grief in their community, it was important to approach this topic in a non-stigmatizing way that equally emphasized risk and protective factors. In order to accomplish this balance, a strengths-based approach was implemented by including concepts

related to adaptive grief in addition to complicated grief. This balanced inclusion of negative and positive aspects of grief is unique to the Indigenous Grief Inventory and allows for a more nuanced understanding of grief and healing among Native people.

One potential limitation of this research was the use of non-random sampling methods. Participants in Study One and Study Two were invited to take part in the research based on recommendations from a community project coordinator and the author's academic advisor. The majority of the people included in these sample were adults over the age of 30 who were closely connected to Native cultural and spiritual practices. Findings from these studies may not generalize to adolescents and young adults or people who are not connected with their Native heritage. Moreover, aspects of grieving and healing may differ across reservations and tribal groups, meaning culturally adapted items may not be appropriate for all AI/AN people. Another limitation of this research was that the Study Three sample was from a different population than that used in the initial cultural adaptation studies. Participants in Study Three were AI/AN people from across the U.S. and it is unknown whether they resided on or off a reservation.

Additionally, some short-form mental health and substance use assessments (e.g., PC-PTSD-5, AUDIT-C) used in Study Three had not been previously validated for use with AI/AN samples, which may have affected the results. A final limitation is that all data were collected during the COVID-19 pandemic and may not reflect typical grieving experiences. Native communities were significantly impacted by COVID-19 in that there were more deaths from the virus and people were unable to grieve communally, as they typically would. Experiencing the loss of a loved one during the pandemic could amplify complicated grief by making it more challenging to rely on social support and other communal-based coping skills.

Future Directions

The development of the Indigenous Grief Inventory as a tool for assessing complicated and adaptive grief creates future health equity research opportunities. First, additional validation studies are needed to evaluate the Indigenous Grief Inventory's psychometric properties in larger, more diverse samples. Research comparing the Indigenous Grief Inventory with the non-adapted ICG and PTGI is required to determine whether the adapted measure has incremental validity, which is an important next step. This would help determine whether the Indigenous Grief Inventory is better able to predict grief-related outcomes than existing assessments. Finding incremental validity would support the assertion that a culturally adapted measure is needed to study the impact of grief in Native populations. Further research is also needed to replicate the factor structure and confirm the psychometric properties of the Indigenous Grief Inventory in more diverse samples of AI/AN people. Specifically, working with other reservations or tribal groups could shed light on possible differences in the measure's factor structure and psychometric properties between rural and urban dwelling AI/AN populations. Efforts should be made to include more AI/AN males, other genders, and younger participants in future studies, as these populations were underrepresented in the current project. Future research also is needed to develop a short-form version of the Indigenous Grief Inventory for use as a screening tool in clinical settings.

Aside from measure refinement studies, further research is needed to better understand complicated and adaptive grief in Native populations. For example, Native people in these studies reported losing numerous people in a two-year time period, meaning they are coping with

more than one loss at a time. Grief research conducted in White populations has focused on the loss of one specific person (e.g., spouse, child, parent; Sealey et al., 2015). However, in Native populations, it may be more appropriate to focus on cumulative experiences of loss rather than on one specific loss. Longitudinal research using the Indigenous Grief Inventory could lead to a better understanding of how complicated and adaptive grief change over time in the face of frequent losses. Longitudinal studies could also provide information about the effects of social determinants of health (e.g., poverty, racism) on complicated and adaptive grief experiences. Finally, prospective studies are needed to determine whether and how complicated and adaptive grief affect health behaviors and outcomes among AI/AN people.

Conclusion

The current project originated from an ongoing research partnership with an AI reservation community in rural Montana. Within a CBPR framework, this cultural adaptation study was conducted to develop a measure of grief that reflected AI/AN people's experiences. This measurement development study filled a gap in the literature by culturally adapting and validating a measure of grief for Native populations. Three studies were conducted using a mixed-methods approach, resulting in a culturally adapted measure of complicated and adaptive grief. The final 26-item Indigenous Grief Inventory demonstrated good psychometric properties, including factor structure, internal consistency, convergent validity, and discriminant validity. The Indigenous Grief Inventory is a potentially valuable tool for future health equity research with AI/AN people.

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APPENDICES

APPENDIX A

STUDY ONE MATERIALS

Background Information						
Please read each question and answer them to the best of your ability.						
Question		Response				
Gender						
Age						
Home community						
Tribal affiliation						
What is the highest grade in school you attended?						
What is your religion or faith-based affiliation, if any?						
How often do you participate in traditional spiritual ceremonies, if any?						
Questions About My Culture						
1. I know my Indian Name.		Yes		No		
2. In certain situations, I believe that things like animals and rocks have a spirit like Native people.		Yes		No		
3. I have a traditional person, Elder, or Clan mother who I can talk to.		Yes		No		
	Strongly Disagree	Disagree	Do not Agree or Disagree	Agree	Strongly Agree	
4. I feel a strong connection to my ancestors.		1	2	3	4	5
5. When I am in need of guidance, I look to my Native culture for help.		1	2	3	4	5

Personal Experiences with Grief		
During the interview, all prompts will be read aloud and filled in by the interviewer.		
Question		Response
1. Has anyone important to you ever died?		Yes No
2. How many important people have you lost in your lifetime?		
3. How many important people have you lost in the past two years?		
4. What was your relationship to the people you lost in the past two years? Mark all that apply.		1. Father
		2. Mother
		3. Stepfather
		4. Stepmother
		5. Brother

	6. Sister	
	7. Stepbrother	
	8. Stepsister	
	9. Grandmother	
	10. Grandfather	
	11. Aunt	
	12. Uncle	
	13. Elder	
	14. Cousin	
	15. Close Friend	
	16. Friend	
	17. Friend of the family	
	18. Someone close to a friend	
19. Neighbor		
20. Other		
5. Of these people, whose death has been the hardest for you to deal with? *If you cannot choose only one person you can talk about more than one loss.		
6. When did the person die (year/month) or how long ago did it happen? If you have trouble remembering, was the person's death around the time of a special occasion, like a birthday or holiday?		
7. What was the cause of the person's death?	1. Cancer	
	2. Diabetes related illness	
	3. Heart disease	
	4. Liver disease	
	5. Kidney disease	
	6. Other illness	
	7. Accident involving drugs or alcohol	
	8. Accident not involving drugs or alcohol	
	9. Murder/homicide	
	10. Suicide	

	11. Alcohol Overdose	
	12. Drug Overdose	
	13. Natural Disaster	
	14. War	
	15. I don't know	
	16. Other	
8. Are there anniversaries associated with the loss of a loved one that are important to you?		
9. (If yes to #8) How do these anniversaries affect you?		
10. How many funerals have you gone to in the past year?		

Interview Questions About Grief¹

What do you believe happens after death?

What are (your culture's) traditions and rituals for honoring someone who passes?

- *Do these traditions and rituals depend on the person who passed, or on the cause of death?*

What are (your culture's) traditions and rituals for coping with the loss of a loved one and dealing with grief?

- *What do you consider to be the roles for each member of your family or community in coping with death?*
- *Is it typical to see or talk to manifestations of your relatives who have passed?*

What is grief like?

- *What does it feel like (physically, mentally, socially, spiritually)?*
- *What do you feel are normal expressions of grief and acceptance of the loss?*
- *What makes grief harder for people to cope with?*

How are people supposed to mourn the loss of a loved one?

- *What does mourning feel like?*
- *How long should mourning last?*
- *What's normal and how do you know when there is a problem?*

How do people express/ experience grief in a good way?

- *What does good coping with grief look like?*
- *What should people do? (anything they should wear or not wear, eat or drink, anywhere they should go or not go, should they talk about it ever, and if so, with whom, etc.).*
- *Please share an example of a good way to express grief if you have one.*

What makes grief harder to cope with?

- *Are certain types of death especially difficult to cope with?*
- *Are certain types of relationships especially difficult to mourn?*

What should people do if they aren't getting through grief?

- *What cultural strengths/ traditions help people handle grief?*
-

¹The questions in italics are prompts and are not necessarily asked of every participant.

- *Are there ceremonies or religious practices that help?*
- *Are you supposed to talk to the deceased person?*
- *Are you supposed to talk about the deceased person to other people? Who should you talk to/how should you talk about the person?*
- *What else helps?*

Tell me about someone who was not able to cope with loss.

- *What did they do?*
- *What happened? What were the effects?*

When should someone seek help to cope with their grief?

- *Who should they get help from?*
- *Would talking to a counselor or other professional be helpful?*

What is the connection between grief and health?

- *How does grief affect your health?*
- *How does it affect the community?*
- *What connection do you think grief and substance use have?*

Is there anything else you want to tell us about grief and loss in Native communities?

Cultural Adaptation Questions

We will now go through the symptoms of Persistent Complex Bereavement Disorder, a questionnaire about grief symptoms (the Inventory of Complicated Grief), and a questionnaire about how people can heal following a traumatic event (Posttraumatic Growth Inventory).

Give participants time to review the Persistent Complex Bereavement Disorder DSM-5 diagnostic criteria, the Inventory of Complicated Grief, and the Posttraumatic Growth Inventory.

Cultural Equivalence Questions

- Looking at the Persistent Complex Bereavement Disorder description, what do you think about this disorder?
 - *Does this disorder make sense for Native people?*
 - *What, if anything, does not apply to Native people?*
 - *What is missing?*
 - *What should be changed?*
- Now looking at the Posttraumatic Growth Inventory, what items from this measure are relevant to how your people grieve? Which ones do you like the best?
 - *Have you felt like this before when you were grieving?*
 - *Do other people you know feel this way after losing someone?*
 - *Are there other ways people tend to grow or heal after losing someone?*
 - *What is missing?*

- *What should be changed, if anything?*

Item Equivalence Questions

- Looking at the individual items on the Inventory of Complicated Grief, are the items relevant to Native experiences with grief?
 - *Have you felt like this before when you were grieving?*
 - *Do other people you know feel this way after losing someone?*
 - *Are there other ways people tend to feel after losing someone?*
 - *What is missing?*
 - *What questions should be removed?*
 - *What other changes would you make?*
 - *Are there any words that are hard to understand, or that are unclear?*
 - *Are there any taboo subjects we should avoid including in the measure?*
 - *Which items do you like the best?*
 - *Which items don't make sense?*
 - *Any other suggestions for changes that would make the questions more relevant to Native people?*

Operational Equivalence Questions

- Now carefully read the instructions for the Inventory of Complicated Grief questionnaire. Are there any changes we should make to improve the instructions to make it clearer or easier to complete?
 - *Would you be able to follow these instructions easily?*
 - *What do you think about the response options?*
 - *Are there any other problems with the format of the questionnaire that would make it difficult for people to understand?*

Wrapping Up

Thank you for taking the time to talk with us today. We are starting to wrap up this interview, and we just have a couple final questions for you.

Is there anything else you would like us to know?

- *About the grieving process?*
- *About the Inventory of Complicated Grief or Posttraumatic Growth Inventory?*
- *About the Persistent Complex Bereavement Disorder criteria?*
- *Any other general thoughts about the study?*
- *Who should we make sure to interview next?*
- *Would you be willing to participate in the next part of this study?*

Thank you for agreeing to help with this study!

- \$35 gift card emailed to participants

Posttraumatic Growth Inventory

You are not required to complete the Posttraumatic Growth Inventory, but rather read each question and share your thoughts about the individual questions.

	I did not experience this change	I experienced this change to a very small degree	I experienced this change to a small degree	I experienced this change to a moderate degree	I experienced this change to a great degree	I experienced this change to a very great degree
Possible areas of growth and change:	0	1	2	3	4	5
1. I changed my priorities about what is important in life.						
2. I have a greater appreciation for the value of my own life.						
3. I developed new interests.						
4. I have a greater feeling of self-reliance.						
5. I have a better understanding of spiritual matters.						
6. I more clearly see that I can count on people in times of trouble.						
7. I established a						

new life path for my life.						
8. I have a greater sense of closeness with others.						
9. I am more willing to express my emotions.						
10. I know better that I can handle difficulties.						
11. I am able to do better things with my life.						
12. I am better able to accept the way things work out.						
13. I can better appreciate each day.						
14. New opportunities are available which wouldn't have been otherwise.						
15. I have more compassion for others.						
16. I put more effort into my relationships.						
17. I am more likely to try to change						

things which need changing.						
18.I have a stronger religious faith.						
19. I discovered that I'm stronger than I thought I was.						
20. I learned a great deal about how wonderful people are.						
21. I better accept needing others.						

Inventory of Complicated Grief					
You are not required to complete the Inventory of Complicated Grief, but rather read each question and share your thoughts about the individual questions.					
Please mark the response which best describes how you feel about a specific person's death					
	Never	Rarely	Sometimes	Often	Always
1. I think about this person so much that it's hard for me to do the things I normally do.	0	1	2	3	4
2. Memories of the person who died upset me.	0	1	2	3	4
3. I feel I cannot accept the death of the person who died.	0	1	2	3	4
4. I feel myself longing for the person who died.	0	1	2	3	4
5. I feel drawn to places and things associated with the person who died.	0	1	2	3	4
6. I can't help feeling angry about his/her death.	0	1	2	3	4
7. I feel disbelief over what happened.	0	1	2	3	4
8. I feel stunned or dazed over what happened.	0	1	2	3	4
9. Ever since he/she died, it is hard for me to trust people.	0	1	2	3	4
10. Ever since he/she died, I feel as if I have lost the ability to care about other people or I feel distant from people I care about.	0	1	2	3	4
11. I feel lonely a great deal of the time ever since he/she died.	0	1	2	3	4
12. I have pain in the same area of my body or have some of the same symptoms as the person who died.	0	1	2	3	4
13. I go out of my way to avoid reminders of the person who died.	0	1	2	3	4
14. I feel that life is empty without the person who died.	0	1	2	3	4
15. I hear the voice of the person who died speak to me.	0	1	2	3	4
16. I see the person who died stand before me.	0	1	2	3	4
17. I feel that it is unfair that I should live when this person died.	0	1	2	3	4
18. I feel bitter over the person's death.	0	1	2	3	4
19. I feel envious of others who have not lost someone close.	0	1	2	3	4

Persistent Complex Bereavement Disorder (PCBD)

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).

1. What is PCBD?

Bereavement is a time of mourning after a loss—typically the death of a loved one. It usually involves feelings such as sadness, guilt, numbness, and shock, before acceptance of the situation sets in. Going through a period of bereavement after losing a friend or family member in death is normal. Although grieving people have similar symptoms to PCBD, normal grief is not a mental health disorder. Individuals with normal grief tend to improve their emotional regulation and adjust to the loss of a loved one as time passes. Even so, individuals with normal grief may benefit from therapy. Grieving individuals show a general pattern of emotional improvement over time. Persistent complex bereavement disorder is different from normal grief. People with PCBD experience a disabling grief reaction that impairs their ability to function on a day-to-day basis. They also take a much longer time to reach the acceptance stage than individuals with normal grief.

2. What causes PCBD?

There is no specific cause of persistent complex bereavement disorder. However, certain environmental and biological factors have been linked with its onset. Some of these factors include:

- High stress
- Poor social support
- Mood issues
- Trauma or traumatic grief
- Being female
- Serving as a caregiver to the deceased prior to death

3. What are the common characteristics for PCBD?

People with persistent complex bereavement disorder typically have a lower quality of life, poor work or academic performance, impaired social functioning, as well as increased alcohol and tobacco use. They are at higher risk of medical conditions such as:

- cancer,
- heart disease,
- immunological deficiencies,
- hypertension,
- suicidal ideation or a desire to join the deceased.

4. What are the diagnostic criteria for PCBD in the DSM-5?

People may meet criteria for a diagnosis for Persistent Complex Bereavement Disorder if they experience these symptoms for at least 12 months following the loss of someone close to them.

1. Persistent yearning/longing for the deceased.
2. Intense sorrow and emotional pain in response to the death.
3. Preoccupation with the deceased.
4. Preoccupation with the circumstances of the death
5. Marked difficulty accepting the death.
6. Experiencing disbelief or emotional numbness over the loss.
7. Difficulty with positive reminiscing about the deceased.
8. Bitterness or anger related to the loss.
9. Maladaptive appraisals about oneself in relation to the deceased or the death (e.g., self-blame).
10. Excessive avoidance of reminders of the loss (e.g., avoidance of individuals, places, or situations associated with the deceased).
11. A desire to die in order to be with the deceased.
12. Difficulty trusting other individuals since the death.
13. Feeling alone or detached from other individuals since the death.
14. Feeling that life is meaningless or empty without the deceased, or the belief that one cannot function without the deceased.
15. Confusion about one's role in life, or a diminished sense of one's identity (e.g., feeling that a part of oneself died with the deceased).
16. Difficulty or reluctance to pursue interests since the loss or to plan for the future (e.g., friendships, activities).
17. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
18. The bereavement reaction is out of proportion to or inconsistent with cultural, religious, or age-appropriate norms.

APPENDIX B

STUDY TWO MATERIALS

Background Information	
Please read each question and answer them to the best of your ability.	
Question	Response
Gender	
Age	
Tribal affiliation	
What is the highest grade in school you attended?	
What is your home community (where did you grow up)?	
Where do you live now?	
Personal Experiences with Grief	
Question	Response
1. Has anyone important to you ever died?	Yes No
2. How many important people have you lost in your lifetime?	
3. How many people close to you have you lost in the past 2 years?	
4. How many funerals have you been to in the past year?	

Complicated Grief

The loss of a loved one is a universal human experience, which has wide reaching impacts on an individual’s mental and physical health. Experiences with grief differ based on numerous factors (e.g., relationship, mode of death, cultural beliefs, etc.). Research suggests that traumatic loss in particular may put people at greater risk of experiencing a difficult grieving process. The term *complicated grief* refers to a disabling grief reaction which impairs an individual’s ability to function normally during daily tasks. Symptoms of complicated grief typically include: a) intense sadness or distress that does not improve as time passes, b) continual yearning for the deceased person, c) digestive issues, d) constantly ruminating on the death, e) emptiness, f) inability to perform daily activities, g) loss of interest in hobbies, h) fatigue, i) hallucinations of the deceased, j) loneliness, and k) suicidal ideation.

The questions below are part of a study aiming to culturally adapt a questionnaire about complicated grief to better reflect American Indian/Alaska Native perspectives. You will be asked to give input on the cultural acceptability (e.g., does the item fit with a Native worldview, in your opinion?) and clarity/readability (e.g., is the item easy to understand?) of the questionnaire items being considered. It is important to note that you are NOT being asked to answer the questions yourself, but rather evaluate the items and provide feedback on them. Your feedback will be used to develop a questionnaire about complicated grief that will be used in future research studies with American Indian/Alaska Native people.

Instructions: **The following items are meant to reflect difficulties or problems people may have in coping with grief and loss (that is, *complicated grief* as described above).** Please read each item carefully and then respond to each of the prompts below. There are no right or wrong answers—we are interested in your opinion about each of these items.

1. I think about this person so much that it’s hard for me to do the things I normally do.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

2. Memories of the person who died upset me.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

3. I feel I cannot accept the death of the person I lost.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

4. I feel myself longing for the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

5. I feel drawn to places and things associated with the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

6. I feel angry or bitter about my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

7. I feel disbelief, stunned, or dazed over my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

8. Ever since my loss, it is hard for me to trust people.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

9. I feel lonely a great deal of the time ever since my loved one died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

10. Since my loss, I have isolated myself from friends and family.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

11. I have found it difficult to forgive the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

12. I feel angry with the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

13. I feel guilty for feeling happy or living a good life when this person has died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

14. I feel responsible for the death.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

15. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

16. I am afraid of burdening others with my feelings of grief.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

17. I feel like the pain from this loss will last forever, or that I will always feel this way.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

18. I have pain in the same area of my body or have some of the same symptoms as the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

19. I go out of my way to avoid reminders of the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

20. I feel that life is empty without the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

21. I would not want to hear the voice of the person who died speak to me.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

22. I would not want to be visited by the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

23. Dreams of the person who died would upset me.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

24. I would not want to see the person who died in my dreams.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

25. I sometimes hear the voice of the person who died speak to me.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

26. I sometimes see the person who died stand before me.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

27. I feel envious of others who have not lost someone close.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

28. I feel numb or empty, or like I don't recognize my own emotions or feelings since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

29. Ever since my loss, I feel as if I have lost the ability to care about other people.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

30. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

31. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

32. I stopped taking care of myself or doing things I know would make me feel better since my loved one died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

33. It is easier to remember upsetting memories of the person who died than happy ones.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

34. I often think about what my loved one might have been if they were still alive.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

35. I feel distant from my family or community since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel when they are struggling with a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

36. Are there any other signs that a person is having a hard time with grief that aren't included in the list above? _____

Adaptive Grief

While most research has focused on the negative aspects of grief that are associated with poor mental and physical health, we also want to understand aspects of adaptive, or healthy, grieving. It is important to consider how some people seem to adapt well and experience positive changes in response to loss, despite the difficult and painful symptoms of complicated grief. An adaptive outcome of grief is defined as a positive outcome such as personal growth, spiritual growth or change, improved and more satisfying relationships, greater maturity, changed philosophy of life, and/or a positive influence on life goals.

Below are questionnaire items that reflect how people can change in positive ways in response to grief and loss. You will be asked to give input on the cultural acceptability and clarity/readability (e.g., are items easy to understand?) of the questionnaire items being considered. It is important to note that you are NOT being asked to answer these questions yourself, but rather evaluate the items and provide feedback on them. Your feedback will be used to develop a questionnaire about adaptive grief that will be used in future research studies.

Instructions: **The following items are meant to reflect positive changes people may experience when healing from a significant loss (that is, *adaptive grief* as described above).** Please read each item carefully and then respond to each of the prompts below. There are no right or wrong answers—we are interested in your opinion about each of these items.

1. Since my loss, I have changed my priorities about what is important in life.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

2. I have been doing things that made me happy before my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

3. I enjoy remembering or talking about the person I lost.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

4. Since my loss, I have become more involved with my family or community.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

5. Since my loss, I have found new connections with my community or culture.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

6. I have gone back to ceremony or other cultural traditions since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

7. I have a better understanding of spiritual matters since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

8. I feel I can help others who are grieving without being consumed by my own feelings of grief.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

9. I more clearly see that I can count on my family and community in times of trouble.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

10. I have learned to sit with difficult emotions.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

11. Since my loss, I feel a stronger sense of responsibility to help other people who have lost someone close to them.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

12. I find it easier to connect with other people since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

13. I am better able to accept life's difficulties since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

14. My loss has helped me make positive changes in my life.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

15. My loss has created new opportunities to serve my community.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

16. I am more able to forgive other people and myself since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

17. I have more compassion for other people who have suffered losses.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

18. I am reconnecting with my family or community since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

19. I welcome visits from the person who died in my dreams or visions.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

20. I enjoy communicating in prayer with my relatives who have passed on.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

21. Since my loss, I have discovered that I'm stronger than I thought I was.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

22. I have learned to accept my emotions and stop being afraid of my feelings.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

23. My loss has helped me find new meaning in life.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

24. I have a stronger spiritual connection or belief system since my loss.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

25. I often remember funny stories about the person who died.				
A. This item makes sense.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
B. It would be easy for me to answer this item.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
C. This item is a good reflection of how Native American people feel or behave when they are healing after a significant loss.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
D. This item is culturally appropriate for Native American people.				
Strongly Disagree 1	Disagree 2	Unsure 3	Agree 4	Strongly Agree 5
E. Please enter any comments or thoughts you may have about this item.				

26. Are there any other signs that a person is healing from grief and loss that aren't included in the list above? _____

APPENDIX C

STUDY THREE MATERIALS

Background Information					
Question	Response				
Gender					
Age					
Monthly Income					
Tribal affiliation					
What is the highest grade in school you attended?					
What is your spiritual, religious, or faith-based affiliation, if any?					
How often do you participate in traditional spiritual ceremonies?					
Cultural Identity					
1. I know my cultural or spirit name.	Yes		No		
2. In certain situations, I believe things like animals and rocks have a spirit like Native people.	Yes		No		
3. I use tobacco for guidance.	Yes		No		
4. I plan on trying to find out more about my Native culture, such as its history, tribal identity, customs, arts, and language.	Yes		No		
5. I have a traditional person, Elder or Clan Mother who I talk to.	Yes		No		
6. I have spent time trying to find out more about being Native, such as history, traditions, and customs.	Strongly Disagree 1	Disagree 2	Do not agree or disagree 3	Agree 4	Strongly Agree 5
7. I have a strong sense of belonging to my Native Tribe or Nation.	Strongly Disagree 1	Disagree 2	Do not agree or disagree 3	Agree 4	Strongly Agree 5
8. I feel a strong attachment towards my Native Tribe or Nation.	Strongly Disagree 1	Disagree 2	Do not agree or disagree 3	Agree 4	Strongly Agree 5
9. The eagle feather has a lot of meaning to me.	Strongly Disagree 1	Disagree 2	Do not agree or disagree 3	Agree 4	Strongly Agree 5
10. How often does someone in your family or someone you are close with use sage, sweetgrass, or cedar in any way or form?	Never 1	Once/Twice in the past year 2	Every Month 3	Every Week 4	Every Day 5

Personal Experiences with Grief		
Question	Response	
1. How many important people have you lost in your lifetime?		
2. How many important people have you lost in the past two years?		
3. What was your relationship to the person/people you lost in the past two years? Mark all that apply.	1. Father	
	2. Mother	
	3. Stepfather	
	4. Stepmother	
	5. Brother	
	6. Sister	
	7. Stepbrother	
	8. Stepsister	
	9. Daughter	
	10. Son	
	11. Stepdaughter	
	12. Stepson	
	13. Niece	
	14. Nephew	
	15. Grandson	
	16. Granddaughter	
	17. Grandmother	
	18. Grandfather	
	19. Aunt	
	20. Uncle	
	21. Elder	
	22. Cousin	
	23. Close Friend	
	24. Friend	
	25. Friend of the family	
	26. Someone close to a friend	
	27. Neighbor	
	28. Other (specify)	
4. Of these people, which loss has been the hardest for you to deal with?		

5. Thinking of the most difficult loss you have experienced, how long ago did the person pass? If you remember, please share the month and year.		
6. What caused your loved one to pass on?	1. Cancer	
	2. Diabetes related illness	
	3. Heart disease	
	4. Liver disease	
	5. Kidney disease	
	6. Other illness	
	7. Accident involving drugs or alcohol	
	8. Accident not involving drugs or alcohol	
	9. Murder/homicide	
	10. Suicide	
	11. Alcohol Overdose	
	12. Drug Overdose	
	13. Natural Disaster	
	14. War	
	15. I don't know	
	16. Other (specify)	
7. How many funerals have you gone to in the past year?		

Inventory of Indigenous Grief					
This questionnaire consists of a list of thoughts and feelings that you may have had since the loss of your loved one. Please read each statement carefully and choose the response that best describes the way you have been feeling in the past six months .					
Select the statement that best describes your experience.	Never 0	Rarely 1	Sometimes 2	Often 3	Always 4
1. I blame myself for the loss of my loved one.					
2. I feel that life is meaningless without the person who passed.					
3. I feel resentful about my loss.					
4. I am reconnecting with my family or community since my loss.					
5. I have returned to activities that brought me pleasure or enjoyment before my loss.					
6. I feel guilty for feeling happy or living a good life after my loss.					
7. I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.					
8. I often think about how different life would be if my loved one were still here.					
9. I feel like the sadness or heartbreak from this loss will last forever.					
10. I stopped taking care of myself since my loved one passed on.					
11. I have seen the spirit of my loved one stand before me.					
12. I think about this person so much that it's hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).					
13. Remembering or talking about the person who passed brings me comfort.					
14. My experience with loss has helped me make positive changes or grow as a person.					
15. I find peace when I communicate with my loved one who passed during prayer or ceremony.					
16. Healing ceremonies and practices (e.g., giveaways, wiping of the tears) following my loss brought me great comfort.					
17. I have strengthened my relationship with the Creator or God since my loss.					

18. I find it easier to forgive other people since my loss.					
19. I feel angry or bitter over my loss.					
20. I welcome visits from my loved one who passed in my dreams or visions.					
21. I feel drawn to places and things connected with the person who passed on.					
22. Ever since my loss, I have had a hard time caring about other people.					
23. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.					
24. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).					
25. Since my loss, I have found new connections with my community or culture.					
26. I worry that I am not grieving in the way I am supposed to.					
27. I have found comfort in church, ceremony, or other cultural traditions since my loss.					
28. I feel numb or empty, or like I don't recognize my own emotions since my loss.					
29. I feel shocked or paralyzed over my loss.					
30. Since my loss, I have become more involved and connected with my family or community.					
31. I feel I have lost control of my life since my loved one passed on.					
32. I go out of my way to avoid reminders of the person I lost.					
33. I often remember funny stories about the person who passed.					
34. Since my loss, I have learned to accept my emotions and trust that difficult feelings are temporary.					
35. I sometimes hear the voice of the person who passed speak to me.					
36. I am afraid of burdening others with my feelings of grief.					

37. Since my loss, I have distanced myself (emotionally or physically) from friends and family.					
38. I feel lonely a great deal of the time ever since the loss of my loved one.					
39. I am struggling to make sense of the loss of my loved one.					
40. I have more compassion or empathy for other people who have suffered losses.					
41. I find myself longing for the person who passed on.					
42. I draw strength from my family and community to help me with my grief.					
43. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.					
44. Since my loss, I have reevaluated what is important in life.					
45. Since my loss, I have found new opportunities to help others and serve my community.					

Who were you thinking of when you answered these questions (friend, parent, sibling)?

When did this person pass on (month/year)? _____

PC-PTSD-5

Sometimes things happen to people that are unusually or especially frightening, horrible, or traumatic. For example: a serious accident or fire, a physical or sexual assault or abuse, an earthquake or flood, a war, seeing someone be killed or seriously injured, having a loved one die through homicide or suicide. Below is a list of problems that people sometimes have in response to very stressful experiences.

Have you experienced a traumatic event?	Yes	No
<i>Skip pattern- if no skip to next measure</i>		
Please read each problem carefully and then click one of the numbers to the right to indicate if you have been bothered by each problem <i>in the past month</i> .		
In the past month, have you...	Response	
1. Had nightmares about the event or thought about the event when you did not want to?	Yes	No
2. Tried hard not to think about the event or went out of your way to avoid situations that reminded you of the event?	Yes	No
3. Been constantly on guard, watchful, or easily startled?	Yes	No
4. Felt numb or detached from people, activities, or your surroundings?	Yes	No
5. Felt guilty or unable to stop blaming yourself or others for the event or any problems the event may have caused?	Yes	No

Anxiety and Depression

Select the response that is closest to how you have been feeling **in the past week**. Don't take too long over your replies: your immediate response is best.

Over the past week, how often have you been bothered by any of the following problems?

1. I feel tense or "wound up."	Most of the time 3	A lot of the time 2	From time to time, occasionally 1	Not at all 0
2. I get a sort of frightened feeling as if something awful is about to happen.	Very definitely and quite badly 3	Yes, but not too badly 2	A little, but it doesn't worry me 1	Not at all 0
3. Worrying thoughts go through my mind.	A great deal of the time 3	A lot of the time 2	From time to time, but not too often 1	Only occasionally 0
4. I can sit at ease and feel relaxed.	Definitely 0	Usually 1	Not Often 2	Not at all 3
5. I get a sort of frightened feeling like 'butterflies' in the stomach.	Not at all 0	Occasionally 1	Quite Often 2	Very Often 3
6. I feel restless, as if I have to be on the move.	Very much indeed 3	Quite a lot 2	Not very much 1	Not at all 0
7. I get sudden feelings of panic.	Very often indeed 3	Quite often 2	Not very often 1	Not at all 0
8. I still enjoy the things I used to enjoy.	Definitely as much 0	Not quite so much 1	Only a little 2	Hardly at all 3
9. I can laugh and see the funny side of things.	As much as I always could 0	Not quite so much now 1	Definitely not so much now 2	Not at all 3
10. I feel cheerful.	Not at all 3	Not often 2	Sometimes 1	Most of the time 0
11. I feel as if I am slowed down.	Nearly all the time 3	Very often 2	Sometimes 1	Not at all 0
12. I have lost interest in my appearance.	Definitely 3	I don't take as much care as I should 2	I may not take quite as much care 1	I take just as much care as ever 0
13. I look forward with enjoyment to things.	As much as I ever did 0	Rather less than I used to 1	Definitely less than I used to 2	Hardly at all 3
14. I can enjoy a good book or radio or TV program.	Often 0	Sometimes 1	Not often 2	Very seldom 3

Historical Losses Scale

American Indian people have experienced many losses. How frequently does each of these losses come to mind?

	Never	Yearly or at special times	Monthly	Weekly	Daily	Several times a day
1. Loss of our land	1	2	3	4	5	6
2. Loss of our language	1	2	3	4	5	6
3. Losing our traditional spiritual ways	1	2	3	4	5	6
4. The loss of our family ties because of boarding schools	1	2	3	4	5	6
5. The loss of families from the reservation to government relocation	1	2	3	4	5	6
6. The loss of self-respect from poor treatment by government officials	1	2	3	4	5	6
7. The loss of trust in whites from broken treaties	1	2	3	4	5	6
8. Losing our culture	1	2	3	4	5	6
9. The losses from the effects of alcoholism on our people	1	2	3	4	5	6
10. Loss of respect by our children and grandchildren for elders	1	2	3	4	5	6
11. Loss of our people through early death	1	2	3	4	5	6
12. Loss of respect by our children for traditional ways	1	2	3	4	5	6

In the past year, did you ever have a drink containing alcohol? Yes/No

Skip pattern- if no is selected, skip to the next measure.

The next questions are about drinking alcohol. We are going to ask you to report how many standard drinks you typically have. It is essential for our research that you describe your drinking as accurately as possible. Because drinks vary by alcohol content, it may be helpful to refer to this chart to make an accurate estimate of your drinking. Please use the information below to estimate your standard drinks. **One (1) standard drink equals:**

A Standard Drink



AUDIT Alcohol Use Questionnaire (AUDIT-US-C)

We want to better understand your typical drinking behaviors. The following questions are about your typical drinking habits. Think back on your drinking behaviors **in the past year** when you are answering these questions. Click on the response that best describes your typical drinking behaviors.

1. How often did you have a drink containing alcohol?						
Never (0)	Less than monthly (1)	Monthly (2)	Weekly (3)	2-3 Times a week (4)	4-6 Times a week (5)	Daily (6)
2. How many drinks containing alcohol did you have on a typical day when you were drinking?						
1 (0)	2 (1)	3 (2)	4 (3)	5-6 (4)	7-9 (5)	10 or more (6)
3. How often did you have six or more drinks on one occasion?						
Never (0)	Less than monthly (1)	Monthly (2)	Weekly (3)	2-3 Times a week (4)	4-6 Times a week (5)	Daily (6)

DAST Drug Use Questionnaire

The following questions concern information about your possible involvement with drugs (not including alcohol) **during the past 12 months**. Carefully read each statement and decide if your answer is “Yes” or “No.” Then, check the appropriate response beside the question.

In the statements “drug use” refers to the use cannabis (e.g. marijuana), solvents, tranquilizers (e.g. valium), barbiturates, cocaine, stimulants, (e.g. speed, meth), hallucinogens (e.g. LSD), narcotics (e.g. heroin, oxy) or other non-prescription medications. Remember that the questions **do not** include alcoholic beverages.

Please answer every question. If you have difficulty with a question, then choose the response that is mostly right.

These questions refer to the past 12 months:	Circle Your Response	
1. Have you used drugs other than those required for medical reasons? <i>Skip pattern- if no is selected, skip to the end of the survey.</i>	Yes	No
2. Do you prefer to use more than one drug at a time?	Yes	No
3. Are you always able to stop using drugs when you want to?	Yes	No
4. Have you had “blackouts” or “flashbacks” as a result of drug use?	Yes	No
5. Do you ever feel bad or guilty about your drug use?	Yes	No
6. Do other people (your spouse, parents, or other relatives) ever complain about your drug use?	Yes	No
7. Have you neglected your family because of your use of drugs?	Yes	No
8. Have you engaged in illegal activities in order to obtain drugs?	Yes	No
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	Yes	No
10. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding, etc.)?	Yes	No

APPENDIX D

INDIGENOUS GRIEF INVENTORY

Indigenous Grief Inventory					
This questionnaire consists of a list of thoughts and feelings that you may have had since the loss of your loved one. Please read each statement carefully and choose the response that best describes the way you have been feeling in the past six months .					
Select the statement that best describes your experience.	Never 0	Rarely 1	Sometimes 2	Often 3	Always 4
1. I blame myself for the loss of my loved one.					
2. I feel that life is meaningless without the person who passed.					
3. I feel resentful about my loss.					
4. I feel guilty for feeling happy or living a good life after my loss.					
5. I feel like the sadness or heartbreak from this loss will last forever.					
6. I stopped taking care of myself since my loved one passed on.					
7. I think about this person so much that it's hard for me to do the things I normally do (e.g., keeping up with my work, school, or family responsibilities).					
8. Ever since my loss, I have had a hard time caring about other people.					
9. Since my loss, I have been using alcohol/drugs, food, or other behaviors to numb my feelings.					
10. I have had unexplained physical symptoms since my loss (for example, pain, tightness in my chest, stomach problems, breathing difficulties, or headaches).					
11. I worry that I am not grieving in the way I am supposed to.					
12. I feel numb or empty, or like I don't recognize my own emotions since my loss.					
13. I feel I have lost control of my life since my loved one passed on.					
14. I go out of my way to avoid reminders of the person I lost.					
15. I am afraid of burdening others with my feelings of grief.					
16. Since my loss, I have distanced myself (emotionally or physically) from friends and family.					

17. I feel lonely a great deal of the time ever since the loss of my loved one.					
18. I am struggling to make sense of the loss of my loved one.					
19. I find it difficult to cope with my loss because I have not been able to mourn properly with others in my family or community.					
20. I am reconnecting with my family or community since my loss.					
22. I feel I can help others who are grieving without being overwhelmed by my own feelings of grief.					
23. I have strengthened my relationship with the Creator or God since my loss.					
24. I have found comfort in church, ceremony, or other cultural traditions since my loss.					
25. Since my loss, I have become more involved and connected with my family or community.					
26. I draw strength from my family and community to help me with my grief.					
27. Since my loss, I have found new opportunities to help others and serve my community.					

Who were you thinking of when you answered these questions (friend, parent, sibling)?

When did this person pass on (month/year)? _____

Scoring Instructions

Items are summed to create a total *complicated grief* score and total *adaptive grief* score.

- Complicated Grief: items 1-19
- Adaptive Grief: items 20- 26

Complicated grief represents signs of struggling with grief and adaptive grief represents signs of healing and growing from grief. The two subscales are intended to be used separately.