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Sri Lankan Widows' Mental Health: Does Type of Spousal Loss Matter?

Katrina Nicole Nelson

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of

Master of Science

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## ABSTRACT

### Sri Lankan Widows' Mental Health: Does Type of Spousal Loss Matter?

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This study examined mental health outcomes for widowed Tamil women in Sri Lanka to identify any associations between type of spousal loss and several outcomes, including internalized stigma as a result of widowhood, anxiety symptoms, depressive symptoms, and posttraumatic stress symptoms. A sample of 381 Tamil female widows living in Eastern Sri Lanka were surveyed in 2016 to understand their experiences in a post-disaster and post-war context. Type of spousal loss was separated into seven categories: war-related death, death as a result of tsunami, illness-related deaths, accidental death, suicide, disappearance, and other. Path analysis was used to assess whether type of spousal loss predicts variations in symptom outcomes, controlling for time they have been bereaved, number of children, social problems, and perceived sense of community. The Conservation of Resources (COR) theory (Hobfoll, 1989) was used to conceptualize how spousal loss is connected to distress symptoms and to explain the findings. Analysis revealed that the only types of spousal loss which associated with significant variation in symptom distress were spousal loss as a result of accident and "other" causes. Specifically, accidental causes of spousal death were associated with lower levels of depression, and "other" causes of death were associated with lower levels of depression and anxiety as compared to all other causes of death. In addition, the control variables of sense of community and social problems predicted significant variation in symptom distress such that higher levels of sense of community were associated with lower levels of depression, anxiety, and posttraumatic stress symptoms, and social problems were associated with higher levels of all measured types of mental health distress symptoms.

Keywords: widow, spousal loss, Sri Lanka, natural disaster, tsunami, mental health, war

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## Sri Lankan Widows' Mental Health: Does Type of Spousal Loss Matter?

### Literature Review

#### Widowhood in a Post-War, Post-Disaster Context

No catastrophe is neutral in its impact on all people affected. Disasters and war can perpetuate and exacerbate social inequality, causing the most harm where there is already disadvantage (Hyndman, 2008; Rahman, 2013). Widowhood is a significant factor contributing to poverty in developing nations, and widowed women are a population particularly at-risk following catastrophe (Owen, 2011). The number of widows worldwide is estimated to be over 260 million and this population is growing at increasing rates (Loomba Foundation, 2015). Upsurges in the world's female widow population are linked with war, natural disaster, and increasing life expectancy. As of 2015, there were 58 countries where over 10% of the female population of marriage age was categorized as widows, with Afghanistan and Ukraine as high as 21.3% and 19.2%, respectively (Loomba Foundation, 2015). Sri Lanka has been affected by both war and natural disaster in recent years, creating a spike in the number of widows residing in the nation (Haynie, 2017; Perera, 2015). As of 2015, 6.6% of women in Sri Lanka of marriageable age (those 15 and older) were widows (Loomba Foundation, 2015).

Sri Lanka's civil war was the result of a long history of colonization and consequent ethnic tensions. Portugal, the Netherlands, and Great Britain occupied Sri Lanka in succession from as early as the 16th century until the nation gained independence in 1948 (Peebles, 2006). As part of colonization, large numbers of Tamil laborers were brought from India to work on tea farms in Sri Lanka (Wickramasinghe & Cameron, 2005). This colonization process eventually created ethnic tensions between Tamils and the native population of Sinhalese. Eventually,

tensions rose so high that a group of separatist Tamil militants formed, and a civil war erupted in 1983 (Rotberg, 1999). The Sri Lankan Civil War lasted until 2009 and left over 100,000 people dead with an even greater number of people injured (Siriwardhana & Wickramage, 2016).

In 2004, a tsunami struck southeast Asia. There were 35,322 casualties in Sri Lanka, with over 1,000,000 people displaced and at least 1,500 children orphaned; the destruction of this natural disaster compounded the effects of war, uprooting social networks and further disrupting the economy (Government of Sri Lanka, 2005). Sri Lanka's Eastern Province was particularly devastated by both the civil war and tsunami, and the southern and eastern coasts sustained severe tsunami impact (Siriwardhana & Wickramage, 2016). After the civil war, there were an estimated 49,000 war widows in the Eastern Province alone (Sajanathan, Rasnayake, Kamalrathne, Chamikara, & Gnanaratne, 2014), and estimated counts for the nation range from 90,000 to 109,000 (Haynie, 2017; Perera, 2015; Sajanathan et al., 2014) meaning war and natural disaster have contributed to an increased population of women in Sri Lanka facing the struggles of widowhood.

**Mental health by type of spousal loss.** Research shows that widows in many parts of the world face mental health challenges following spousal loss because of both war and natural disaster. Widows of war are consistently found to be susceptible to mental health difficulties. Mothers widowed because of war in Kosovo report significantly lower life satisfaction and subjective wellbeing than non-widowed mothers ten years following the Kosovo war. These war widows also report higher rates of posttraumatic stress disorder (PTSD), anxiety, and depression (Morina & Emmelkamp, 2012). Following the conflict of the Rwandan genocide, most widows interviewed indicated that losing their husband was the most significant loss in their life and 40% displayed symptoms for clinical depression (Schaal, Elbert, & Neuner, 2009). Both depression

and anxiety are prevalent among war widows in Nepal. Factors associated with higher levels of psychopathology among Nepali widows include financial stress, low autonomy, and low social support (Basnet, Kandel, & Lamichhane, 2018). Disappearances as a result of conflict in Nepal also create a context of ongoing stress for families. Such stress particularly impacts widows, who express feelings of isolation from family and community because of the ambiguous nature of their loss and resultant marital status (Robins, 2010). Becoming a widow as a result of war and genocide appears to be a significant risk factor for negative mental health outcomes.

Women who have been widowed because of natural disaster also appear to be at increased risk for mental health difficulties. Kristensen, Weisæth, & Heir (2010) studied bereaved relatives of Norwegians who were killed in the South-East Asian tsunami and found that losing a spouse in the tsunami significantly predicted symptoms of complicated grief, even when bereaved individuals were not directly exposed to the disaster themselves. These symptoms persisted even two years following the disaster and were not correlated with disaster exposure alone, indicating that loss of a spouse as a result of a natural disaster has significant implications for mental health (Kristensen et al., 2010). Among survivors of the Sichuan earthquake in China, those who lost an immediate family member were significantly more likely to develop clinical PTSD and/or depressive symptoms. Of those who lost a family member in the earthquake, 65% experienced PTSD symptoms and 64% experienced depressive symptoms, versus 27% and 37%, respectively, in the non-bereaved population (Chan et al., 2012). Spousal loss because of natural disaster appears to be a significant risk factor for negative mental health outcomes.

Yet, research comparing the psychological impact of differing causes of spousal loss among widows, including war, disaster, illness or other causes, is currently lacking. A few

studies have compared general types of bereavement according to sudden or prolonged deaths (Ball, 1977; Sanders, 1983). Others have compared suicide to other causes of death and show mixed results as to whether suicide is related to more difficult bereavement outcomes (e.g. Bailey, Kral, & Dunham, 1999; Barrett & Scott, 1990; Demi, 1984; Jordan, 2001). It should also be noted that these studies have been limited to Western populations, and many of them focused on bereavement generally rather than on spousal loss specifically. Furthermore, there is wide variation in type of spousal loss for those living in contexts affected by trauma and poverty, which includes deaths that are indirectly related or unrelated to mass trauma. While spousal loss resulting from both war and disaster has been shown to increase mental health strain, a relative comparison of the impact of these loss types has not been undertaken. Understanding the differences between the mental health outcomes of differing types of spousal loss, including those that are not directly tied to trauma, could help illuminate the nuances of widows' experiences with loss and difficulty and point to distinct needs and more tailored services. Examining all widows in the same category may blunt the understanding of variation in mental health distress.

### **Theoretical Frame**

The Conservation of Resources theory (COR; Hobfoll, 1989) may be useful in suggesting possibilities as to how varying causes of spousal loss may associate with mental health distress variation in widows because it specifically frames stress as a function of loss. According to COR, the loss of various resources accounts for stress symptomology and, often, further resource loss. In other words, differing perceptions and experiences of loss may lead to differing manifestations of mental health stress.

COR theory assumes that people have an innate drive to accumulate and secure resources for purposes of survival and self-actualization (Hobfoll, 1989). Resources are those things that individuals value, designated in part by cultural context, and can be *objects, traits or personal characteristics, conditions, or statuses*. These resources are either innately of value to the individual (instrumentally or symbolically) or are of value as a means of accumulating more resources (Hobfoll, 1989). For example, the condition of marriage is often valued as a resource because it can provide financial, social, and emotional security, and individuals with these resources have an advantage for gaining further resources. Once resources are acquired, individuals typically strive to protect them through investing in other resources that maintain and secure resources already gained (Hobfoll, 2001). In other words, people are incentivized to protect their resources, and do so by accumulating other resources to serve that purpose. Therefore, loss of resources, or even the threat of loss, results in stress.

Specifically, COR states that stress occurs in three ways: 1) through perceived threat to resources, 2) through actual loss of resources, or 3) through a failure to gain adequately from an investment, resulting in a net loss of resources (Hobfoll, 1989; 1991; 2001). When resources are threatened, individuals seek to offset loss through replacement or substitution, which requires the use of remaining resources (Hobfoll, 2001). In other words, coping requires resources. A widowed woman experiencing loss of income because of her husband's death must expend energy (a resource) to acquire new financial resources, often calling on social connections to help, which also may use up social favors (a resource). Supportive social relationships, though not inherently considered resources, are key to the flow of resources and are most important in times of hardship (Hobfoll, 1989). Those with more resources and positive social connections will have an easier time recovering from loss because they have more support to draw upon,

reducing further losses. Those with fewer resources are not only at a disadvantage because they have fewer resources to draw upon but are also at greater risk because their net resources are depleted more quickly. Thus, those with fewer resources to begin with are more vulnerable to stress from loss.

Traumatic events, such as natural disasters and war, are particularly threatening to various resources because of the extreme and sudden nature of these occurrences. Traumatic stress creates excessive demands on resources and defies typical resource utilization coping methods (Hobfoll, 1991). Traumatic experiences are particularly difficult because they threaten resources that allow for thriving in an environment. For example, traumatic experiences typically diminish an individual's feelings of safety, trust, and control, shaking his or her worldview and often reducing predictability and hope in the future (Hobfoll, 1991). Decreases in these core resources can make it especially difficult for individuals to move forward in accumulating new resources (Hobfoll et al., 2007).

Thus, COR asserts that the stress of trauma comes from the resources it threatens or destroys. The new context and daily experiences of individuals who have survived community trauma are shaped more by resource scarcity than by the traumatic events themselves (Hobfoll, 1989; Hobfoll et al., 2007). For example, widows may experience greater long-term stress as a result of having to find ways to provide for their family in their new position without a husband than from the actual traumatic experience of itself (Ruwanpura & Humphries, 2004). Threats to resources increase daily stress, which often manifests through psychological symptoms such as depression and anxiety (Hobfoll, 1989).

Using this theoretical lens, Tamil widowed women living in Sri Lanka are at risk for high levels of psychological distress as a result of severe resource losses. The social inequity this

population faces prior to and following spousal loss increases their chances of experiencing loss spirals (Hyndman, 2008). Namely, Tamil women who are widowed not only face gender and widow-based stigma and discrimination, but also belong to a marginalized ethnic group within Sri Lanka. These vulnerabilities are compounded by the loss of their husbands and resources attached to that relationship and marital status (Ruwanpura & Humphries, 2004). Losing a spouse means that widows lose social capital, emotional support, income, the status of marriage, and often community acceptance (Lambert, Banford Witting, James, Ponnampereuma, & Wickrama, 2018). Widows are then required to expend resources to try and recoup these losses, which leads to further depletion. Yet, each widow's situation is unique, and variability in age and family size may positively or negatively associate with a widow's experience of loss (Ruwanpura & Humphries, 2004). Interestingly, widows in Sri Lanka report experiencing stress from the responsibility of being a single mother while also reporting the use of focusing their lives on their children as a coping mechanism after spousal loss. Caring for children often becomes central to a widow's life (Pannilage & Gunawardane, 2016). Thus, a woman's family size may have implications for her mental health as she experiences the condition of widowhood.

Given that different causes of death may be connected to unique meanings for widows within their communities, the specific cause of death of a widowed woman's spouse could threaten resources of status or conditions in distinct ways. For example, women may be either pitied or blamed for their husband's death based on the type of spousal loss they experience, leading to different levels of stigma or support (Pannilage, 2017). Thus, different types of spousal loss may impact a widowed woman's experience of loss, associating with variation in mental health outcomes.

### **Vulnerabilities of Widowhood**

Widows are an underserved population and an at-risk world minority. As part of spousal loss, widows experience not only bereavement and loneliness, but also newfound duties and hardships unique to taking on increased household responsibilities. As new heads of households, women often become the primary earners for their families. Widowhood is a driving factor for poverty among women in developing countries because of social stigma attached to widowhood and lack of available work for women (Owen, 2011). Aside from economic struggles, widows are also at risk for several mental health difficulties, including depression, anxiety, and PTSD, especially in the first year following their husband's death (Onrust & Cuijpers, 2006). Widows in Sri Lanka are no exception to this vulnerability. Women who are widows in Sri Lanka have expressed a myriad of difficulties that come with the experience of widowhood, including social stigma, isolation, and becoming a single mother (Pannilage & Gunawardane, 2016). These difficulties represent forms of loss, and thus create stress, which is often manifest through mental health distress symptoms such as those presented in this paper.

**Internalized stigma.** As widows take on the new role of providing for their families, they also face isolation as a result of the significant stigma associated with widowhood in Sri Lanka (Sajanthan et al., 2014). This stigma can make it difficult for widows to find work or remarry, leaving them particularly vulnerable to the difficulties of resource-scarce contexts because of lack of financial and social support (Sajanthan et al., 2014). Stigma can take a particularly strong toll when it is internalized, meaning that the individual experiencing stigma begins to believe the stigmatized beliefs and to apply these to themselves, often leading to shame and self-isolation (Boyd, Adler, Otilingham, & Peters, 2014). Women who experience widowhood may be at distinct risk from the effects of internalized stigma, which has been found

to negatively impact social relationships, recovery processes, and community involvement (Drapalski et al., 2013).

Widows in Sri Lanka face many types of stigma simultaneously. In Sri Lanka's socio-cultural context, women earn significantly less than men, which makes female headed households more vulnerable to the economic effects of war and disaster than those headed by men (Amirthalingam & Lakshman, 2012). Widows are at an even higher risk than other women in their communities in Sri Lanka following war and disaster because they face multiple forms of loss, including financial, emotional, and social (Somasundaram, 2007). Women who are widows must provide for themselves but are simultaneously largely excluded from access to resources, and deal with a heightened threat of sexual violence, putting them under the pressure of a "triple burden" (UN Women, 2014, p. 5). Even women who can get help from extended family are put in a difficult position because of their dependence. Widows receiving help often feel pressured to conform to the will of their benefactors and become stressed because of the intense scrutiny they experience (Pannilage, 2017). Feelings of fear, insecurity, and unease have been described as pervasive for widows in Sri Lanka (Silva, 2012). In such circumstances, stigma connected to widowhood may be internalized. The internalization of stigma essentially refers to the idea that isolation and demoralization may come not only from the outside community but also from within stigmatized individuals (Boyd et al., 2014).

Furthermore, the Eastern Province of Sri Lanka mostly consists of Tamil families, which is reflected in the sample population of this study. Tamil women are especially vulnerable as compared to women of other ethnic groups in Sri Lanka because Tamil culture stresses traditional female roles (Pannilage, 2017). In fact, Tamil women are the only ethnic group of women in Sri Lanka for which the gender gap has not narrowed in recent years, making them

particularly vulnerable to the financial burdens of widowhood (Pannilage, 2017). For example, Tamil women are often not accepted to work or are paid unfair wages, especially if they have any association with the Tamil fighting group during the war (Premaratne & Klimešová, 2015). Many women did have such an association because Tamil women were recruited and conscripted to fight in the conflict (Alison, 2003). Female involvement in the LTTE varied from those who were coerced into conscription to those volunteering in a controversial display of national feminism (Gowrinathan, 2017). Thus, many factors contribute to the stigma that Tamil women face in Sri Lanka, and it may be that Tamil women who have lost their husbands face distinct discrimination as compared with widows belonging to other ethnic groups in Sri Lanka. Because of this position of vulnerability, it is especially important that more is understood about the experiences of Tamil widows, including how type of spousal loss may play into their new reality.

**Depressive symptoms.** Research shows that widows are at increased risk for experiencing depressive symptoms. Among older adults living in old age homes in India, widows and widowers have higher rates of depression than older adults of other marital statuses (Goud & Nikhade, 2015). While much of the research on widows focuses on older widows, young widows are at higher risk for traumatic bereavement and thus experience more extreme grief at the death of their spouse (Ball, 1977; Lange, 2016). Ball (1977) found that the nature of a widow's husband's cause of death significantly impacted a widow's grief reactions, in that more sudden or unanticipated deaths were correlated with greater severity of grief for widows. Thus, anticipatory grief and older age can be protective for widows (Ball, 1977). Ball et al. (2010) found that for women in Sri Lanka, being a widow is a significant risk factor for depression. Factors associated with depressive symptoms in widowed women have been documented in other research and include war damage and loss, economic status, discrimination, and lack of

social support (Banford Witting, Lambert, Wickrama, Thanigaseelan, & Merten, 2016). These findings are congruent with COR theory, since a wide array of resource losses would be expected to lead to greater negative mental health symptoms. Yet, research on understanding how type of spousal loss may associate with depressive symptoms is still lacking.

Furthermore, depression in one member of a family has a negative impact on the functioning of the whole home for war-affected families in Sri Lanka (Somasundarum, 2007). Research shows that a mother's depression is associated with child psychopathology and negative behavior (Goodman et al., 2011). These associations have particularly large effect sizes when the mother is a single parent, or the family is experiencing poverty (Goodman et al., 2011). Thus, considering the impact of differing spousal loss experiences on widowed women's depressive symptoms likely has implications for entire families.

**Anxiety symptoms.** Anxiety symptoms are prevalent in the experience of bereavement (Shear, & Skritskaya, 2012), but there is little research on anxiety experienced by women who are widows in Sri Lanka. Among middle-aged women in Punjab, India, being a widow is a significant risk factor for anxiety, and widowed women have more severe anxiety than their married counterparts (Bansal et al., 2015). Jayawickreme et al. (2017) surveyed individuals living in high-conflict areas of Sri Lanka and found that over half experience confusion as they think about the past. Nearly half of those surveyed fear for the future and say their experiences have made them afraid of being with strangers (Jayawickreme et al., 2017).

Many Sri Lankan women feel partly blamed for their husbands' deaths, which they may interpret as punishment for something they have done wrong. As a result, these women may encounter increasingly confusing and anxious thoughts about the past (Pannilage, 2017). Feelings of anxiety make it especially difficult for widows who lack social support to reach out

for the help they need, keeping bereaved women isolated (Schaal, Dusingizemungu, Jacob, Neuner, & Elbert, 2012). However, a clear understanding of what types of spousal loss may be particularly connected with feelings of self-blame or anxiety symptoms has not yet been established in the literature.

**Posttraumatic stress symptoms.** Posttraumatic stress symptoms are expected among survivors of community trauma. Research on Palestinians and Jews in Israel experiencing terror revealed that psychosocial loss may be the mechanism whereby PTSD symptoms are particularly exacerbated (Hobfoll, Canetti-Nisim, & Johnson, 2006). In other words, social loss is linked with trauma symptoms. It follows that women experiencing widowhood may have an elevated risk for posttraumatic stress symptoms because of the social nature of their loss. In a meta-analysis of mood and anxiety disorders among widowed women, PTSD symptoms were found to be common among widows in the first year following spousal loss. After the first year, slight declines occurred, but many widows experienced stable levels of PTSD beyond the year mark (Onrust & Cuijpers, 2006). Furthermore, Siriwardhana et al. (2013) found that being a widow or divorced in Sri Lanka was the only demographic factor significantly associated with an outcome of PTSD, demonstrating that widows may be the most at-risk population in Sri Lanka for posttraumatic stress symptoms.

### **Rationale and Hypothesis**

The impact of war and disaster on the mental health of Sri Lankan residents, particularly the nation's growing population of women who are widowed, is clearly documented. Yet, research on the relative impact of type of spousal loss on a widowed woman's mental health has not yet been fully explored. This research is important in understanding Tamil widows in Sri Lanka specifically, as this group is associated with many identities that intersect in complex

ways. On top of experiencing spousal loss, Tamil women who are widows in Eastern Sri Lanka have experienced more extreme displacement as a result of the Tsunami because of government policies than the Sinhala majority in the south (Hyndman, 2008). Tamil women also experience gender-based oppression from within their ethnic group, as gender standards emphasizing motherhood and reproduction essentially differentiate widows from women (Hyndman, 2008).

The aim of this study is to understand if differences in type of spousal loss associate with variation in various mental health distress symptoms for widows, controlling for number of years since the loss, number of children, social problems faced, and sense of community. This understanding will help to better tease out the complex experience of Tamil widows in Sri Lanka. Based on the Conservation of Resources theory that stress is a result of loss and resource scarcity, the following hypothesis are presented for study and depicted in Figure 1 below:

1. Spousal loss because of the mass trauma events of war and tsunami will be associated with greater mental health distress symptoms compared to other causes of death while accounting for control variables in the model.
2. Higher sense of community will be associated with lower mental health distress.
3. Higher numbers of social problems will associate with higher mental health distress.

## **Method**

### **Participants and Procedure**

Participants were 400 widowed Tamil women recruited using a convenience sample. Fifteen participant responses were lost as a result of a technical error on the tablets used in data collection, and a further three were omitted because of missing data on at least one measure, leaving a sample of 381. Local members of the research team widely advertised the study in four

divisions of the Batticaloa District of the Eastern Province of Sri Lanka. The survey was individually verbally administered at local community centers on the previously announced dates and responses were recorded using a tablet application called QuickTap. Interviews lasted about 90 minutes and were conducted on a first come, first served, basis. Interviewers (3 women and 2 men) were students who were native speakers and received specific training on administration of the survey. Participants were offered food and commonly purchased goods worth \$5 USD for their participation, which is the equivalent of a half day of work in a rural village. Local project consultants recommended this amount as being enough to make involvement worth participants' time without creating excessive pressure to participate.

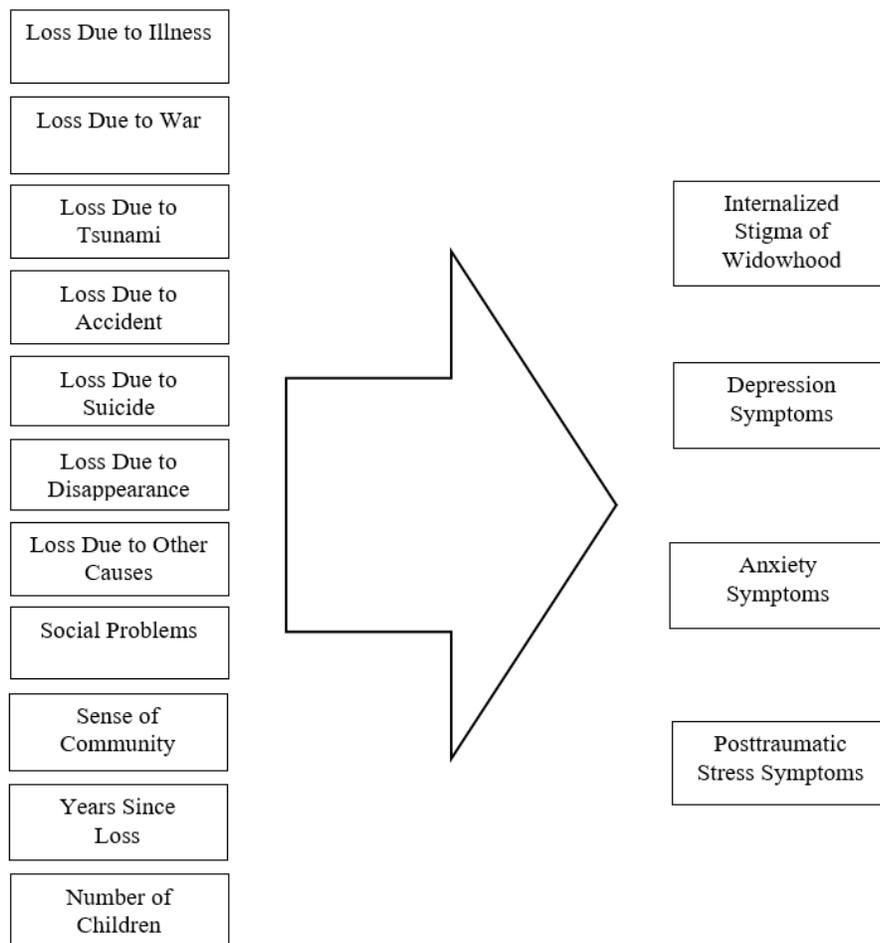


Figure 1. Conceptual model, including control variables as predictors.

Women interviewed ranged in age from 19 to 86, with a mean age of 55.3 years. On average, participants reported having personally experienced 7.7 traumatic events, with a range of 0 to 16 on a scale developed and validated by Husain et al. (2011). All but two participants reported personally experiencing at least one potentially traumatic event. This information is included for reference, however the scale was not included in the multivariate analyses because of concerns with model fit when including the variable. The median income for this sample over the past 12 months was 50,000 rupees (or approximately \$284.11 USD). This reported median income among participants was relatively meager, consistent with the known difficulty widows have finding fair wages or work at all. About one third of the participants worked outside of the home, and most reported employment related to physical labor jobs such as cooking and farming. All participants spoke Tamil.

## Measures

In addition to being asked basic demographic questions and their husband's cause of death, participants were assessed for internalized stigma, depression, anxiety, and posttraumatic stress symptoms. All scaled measures included in the study were previously validated, or developed with this population, except for the internalized stigma of mental illness scale (ISMI; Ritsher, Otilingam & Grajalesa, 2003) and the sense of community scale which was included as a control variable (Perkins, Florin, Rich, Wandersman, & Chavis, 1990). These two scales were translated and back translated prior to inclusion in the study.

**Internalized stigma.** Internalized stigma symptoms were assessed using the *Internalized Stigma of Mental Illness* scale (ISMI; Ritsher et al., 2003), which consists of 29 items. The ISMI originally measured stigma associated with mental illness and has previously been adapted to

measure stigma relating to a range of social and health statuses with high reliability and convergent validity (Boyd et al., 2014).

For this study, the ISMI was adapted to measure the internalized stigma or discrimination specifically felt from being a widow. The ISMI was then translated, back-translated, and evaluated for face validity and cultural applicability by local study consultants. Items were responded to on a 4-point Likert scale, with 1= strongly disagree and 4= strongly agree. Questions included “I feel embarrassed or ashamed because I’m a widow,” “I am disappointed in myself for becoming a widow,” and “People can tell that I am a widow by the way I look.” An exploratory factor analysis was conducted to identify any items that contained uncorrelated factors for this sample. Through this analysis we identified 21 items to retain in a single-factor solution, resulting in an internal consistency of .87.

**Depression and anxiety.** Psychological distress was assessed using a Tamil-language version of the *Hopkins Symptom Checklist* (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). This measure assesses trauma-related depression and anxiety symptoms. It was previously translated to Tamil and validated in Sri Lanka by Husain et al. (2011). The reliability of the HSCL has been thoroughly investigated using a number of reliability indices and has been found to have high discriminant validity for anxiety (Bech, Bille, Møller, Hellström, & Østergaard, 2014; Derogatis et al., 1974). The depression scale is composed of 15 items that assess for symptoms of depression such as poor appetite, sadness, and trouble sleeping, and is answered on a Likert scale where 1=not at all and 4=extremely. The anxiety scale is composed of 10 questions that use the same range as the depression items. These items assessed for anxiety symptoms such as feeling nervous, weak, or panicked. Scores are averaged, and an average score of over 1.76 is considered significant. Chronbach’s alpha for this sample was  $\alpha = .86$ .

**Posttraumatic stress symptoms.** Posttraumatic stress symptoms were measured using the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992), which was translated into Tamil and validated by Husain et al. (2011). The HTQ is a checklist of 17 items used to verbally assess posttraumatic stress symptoms based on DSM-IV criteria. Items are averaged to compute scores, and a score  $> 2.5$  is considered significant. Chronbach's alpha for this sample was  $\alpha = .87$ .

**Sense of Community Index (SCI; Perkins et al., 1990).** The SCI was designed to assess four aspects of a psychological sense of community, including membership, emotional connection to others, needs fulfillment, and perceived influence. The SCI contains 12 items and has been translated into several languages and used with culturally diverse populations internationally. For this study, the term "village" was used because it best described the community reference group for this population. Example items include: "I feel at home in this village," "My neighbors and I want the same thing from this village," and "The people in this village get along well." Responses are recorded on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Scores are computed by averaging a participant's responses, with higher scores indicating a stronger sense of community. Chronbach's alpha for this scale was  $\alpha = .84$ .

**Social problems related to widowhood.** The social problems subscale from the Penn/RESIST/Peradeniya War Problems Questionnaire (PRPWPQ; Jayawickreme, Jayawickreme, Goonasekera, & Foa, 2009) was used to measure social problems related to widowhood. The subscale contains 14 items answered yes/no, and scores are obtained by summing the number of yes responses. Items include living alone, feeling neglected by society,

being unable to conduct cultural activities, and fear of sexual attacks. No alpha was calculated because this is a summed scale with no expectation of association between individual items.

### **Statistical Analysis**

Univariate and bivariate analyses were run using SPSS version 25 (IBM, 2017). Statistical analysis to address the research questions was conducted using Mplus version 8 (Muthén & Muthén, 2017). A path model was fit to the data using dummy coded predictor variables of type of spousal loss along with control variables to examine whether type of spousal loss would predict variation in mental health symptom distress. Type of spousal loss was dummy coded into seven categories: war, tsunami, illness, accidental, suicide, disappearance, and other. See Figure 1 for a visual representation of the model, including controls.

## **Results**

### **Univariate and Bivariate Results**

Mean values, standard deviations, and bivariate correlations of the study variables are summarized in Table 1. All variables displayed roughly symmetric distribution except for the *Sense of Community Index* (SCI), which was strongly left skewed. To address this skew, a log base 10 of the SCI was used in the analyses.

Most women in the sample experienced spousal loss because of illness (51.9%, 199 women), and another large portion lost their husband because of war (25.2%, 96 women). The next most commonly reported type of spousal loss was death because of accidents (5.5%, 20 women), with 4.9% of participants (18 women) reported losing their husband to the tsunami. The remainder of participants reported losing their husband because of suicide (3.6%, 14 women), disappearance (3.6%, 14 women), and other causes of death (3.6%, 14 women). Reported causes

of death that were collapsed into the category of other causes of death included black magic (.5%, 2 women), murder (1%, 4 women), incidents with an insect or animal (1.6%, 6 women), and multiple spousal losses (.5%, 2 women). Cause of spousal loss was unclear for 1.6% of participants (6 women), though all indicated that they were widowed, including five who reported being left by their husbands and one reporting being widowed and then remarried. The median number of children for women in this sample was 4.

Table 1

*Univariate Characteristics and Bivariate Associations Between Study Variables*

Scale	Mean	SD	1	2	3	4	5	6
1. Social <sup>a</sup>	5.72	2.85	—					
2. Community <sup>a</sup>	1.40	0.13	-.17**	—				
3. Anxiety <sup>a</sup>	2.29	0.66	.30**	-.23**	—			
4. Depression <sup>a</sup>	2.39	0.50	.37**	-.36**	.70**	—		
5. PTSS <sup>a</sup>	2.21	0.57	.42**	-.39**	.71**	.77**	—	
6. ISMI <sup>a</sup>	2.50	0.47	.46**	.01	.29**	.34**	.28**	—
7. Death_war <sup>a</sup>	0.25	0.43	.06	-.07	.12*	.07	.18**	-.01
8. Death_ts <sup>a</sup>	0.05	0.21	.01	.01	.01	.05	.02	.06
9. Death_il <sup>a</sup>	0.52	0.50	-.07	.05	-.07	-.07	-.16**	-.11*
10. Death_ac <sup>a</sup>	0.05	0.22	-.01	.01	-.06	-.09	-.02	-.01
11. Death_ot <sup>a</sup>	0.04	0.19	-.01	-.01	-.14**	-.10	-.12*	.04
12. Death_su <sup>a</sup>	0.04	0.19	-.02	-.05	.03	.06	.06	.06
13. Disappear <sup>a</sup>	0.04	0.19	.04	.06	.04	.05	.05	.10

Note: Community = Sense of Community Index; Anxiety = anxiety symptoms; Depression = depression symptoms; PTSS = posttraumatic stress symptoms; ISMI = Internalized Stigma of Widowhood symptoms; Death\_war = spousal loss as a result of war; Death\_ts = spousal loss as a result of tsunami; Death\_ill = spousal loss as a result of illness; Death\_ac = spousal loss as a result of an accident; Death\_ot = spousal loss as a result of other causes; Death\_su = spousal loss as a result of suicide; Disappear = spousal loss as a result of disappearance.

<sup>a</sup>n = 381.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

General trends within the univariate analysis results allow a general description of the sample to be made based upon the study variables. For instance, most participants scored above the established clinical cutoff point for anxiety and depression symptoms (80.6% and 88.2%, respectively), suggesting high levels of mental health distress. Furthermore, about one-third of participants scored above the cutoff for clinical distress with posttraumatic stress symptoms as well. The mean score of internalized stigma symptoms was 2.5 on a scale anchored from 1-4. The mean score being above 2 indicates some distress; however, there is no established distress cutoff for this specific version of the scale. Finally, the left skew of SCI scores indicated that most women in the sample reported experiencing high levels of sense of community.

Bivariate analyses indicated that higher levels of social problems were correlated with increased symptoms of mental health distress in every category, whereas a stronger sense of community was associated with lower amounts of anxiety, depression, and posttraumatic stress symptoms. Not surprisingly, stronger sense of community was inversely correlated with social problems. Higher mental distress symptoms were generally associated with higher levels of other mental distress symptoms; anxiety, depression, posttraumatic stress symptoms, and internalized stigma were all significantly positively correlated. Surprisingly, most causes of death were uncorrelated with other variables, with a few exceptions. Spousal loss resulting from other causes was inversely correlated with anxiety and posttraumatic stress symptoms. Spousal loss because of illness was also correlated with lower levels of internalized stigma of being a widow and posttraumatic stress symptoms. Finally, spousal loss being related to war was significantly correlated with higher anxiety and posttraumatic stress symptoms. Respondents' anxiety and posttraumatic stress symptoms were higher when spousal loss was related to war as compared to

other causes of death. Death related to the tsunami was not associated with variation in any mental health distress symptoms.

### **Multivariate Analysis**

To determine if type of spousal loss associated with variation in mental health outcomes, accounting for control variables, a path analysis was conducted. Mplus version 8 (Muthén & Muthén, 2017) was used to fit a path model and fit indices suggest it was a reasonable approximation of the data ( $\chi^2 = 59.46$ ,  $df = 28$ ,  $p = .0001$ ; RMSEA = 0.054; CFI = 0.962, TLI = 0.932). See figure 2 for a visual representation of significant model results.

**Cause of death.** Contrary to the hypothesis that a woman's mental health symptoms would be associated with type of spousal loss, results indicated that most causes of husband's death did not significantly associate with variation in mental health symptom outcomes of the widowed women in this sample. However, there were two exceptions. Those respondents whose husbands died in an accident had slightly lower levels of depression than those whose husbands died in another way, and those respondents who lost their husbands because of "other" causes had lower levels of depression and anxiety than those whose husbands died in another way.

**Other predictors of mental health distress.** Higher levels of social problems were associated with higher levels of internalized stigma of being a widow, anxiety symptoms, depression symptoms, and posttraumatic stress symptoms. Sense of community was inversely associated with depression symptoms, anxiety symptoms, and posttraumatic stress symptoms. Number of children was associated with higher levels of anxiety symptoms and posttraumatic stress symptoms. Years since the loss was not associated with differences in any mental health outcomes.

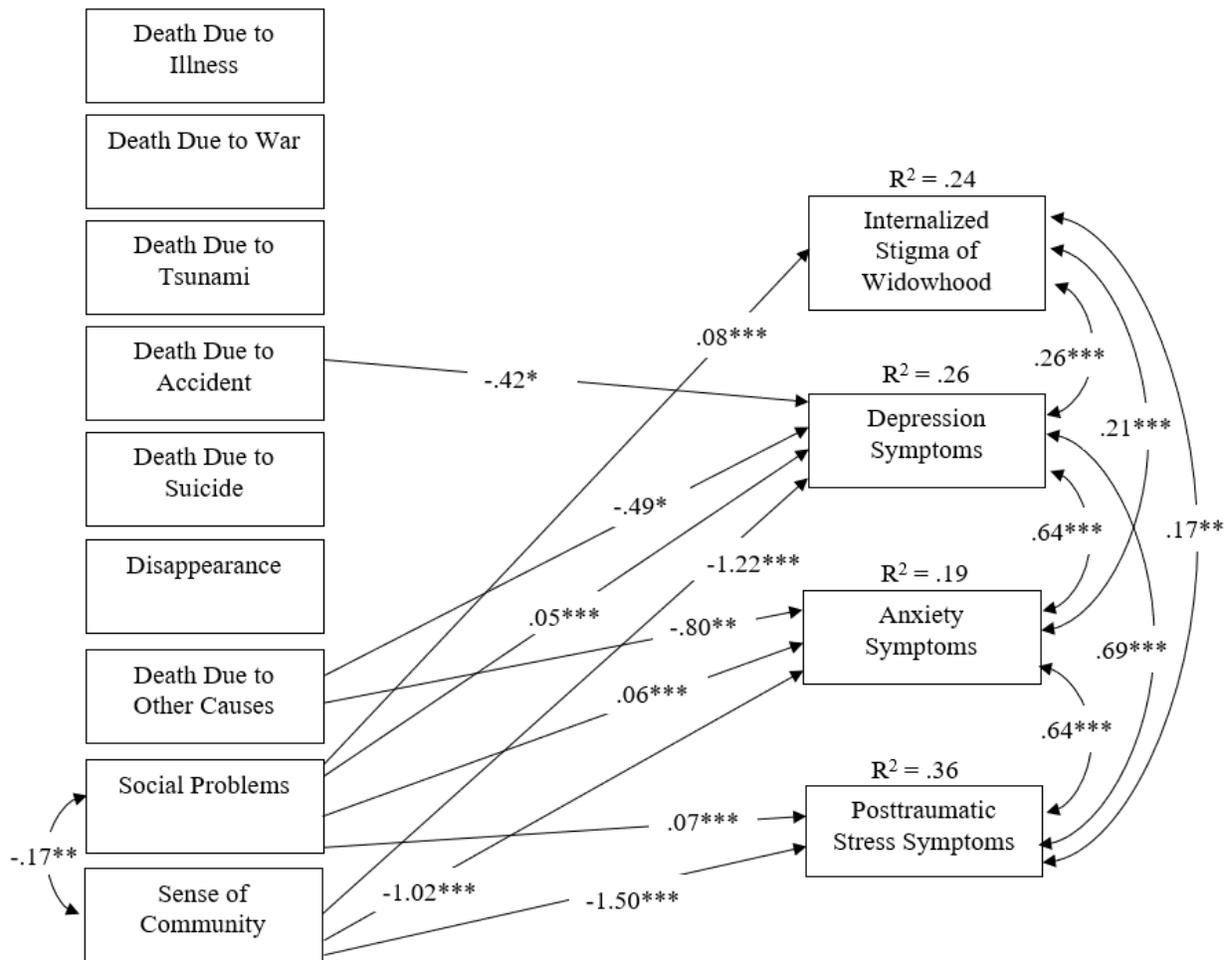


Figure 2. Path model results. Path coefficients are unstandardized, covariances are presented as standardized correlations. Regression paths were calculated between all predictors and outcomes. For visual clarity, only significant paths have been depicted. Variation in all study variables attributable to number of children and years since the disaster was controlled.

\* $p < .05$ . \*\*  $p < .01$  \*\*\*.  $p < .001$ .

$N = 381$ .

### Discussion

Until now, few attempts have been made to parse out differential effects of type of spousal loss on women who are widows, and the attempts that have been made have typically explored general bereavement and been conducted in Western populations (Ball, 1977; Sanders,

1983). A bit more research has been conducted comparing loss because of suicide and other forms of bereavement, but again, this body of research focuses mostly on Western populations and has mixed results (e.g. Bailey et al., 1999; Barrett & Scott, 1990; Demi, 1984). This study has widened the scope of literature on this topic by focusing on widows in a non-Western context and by comparing war and disaster types of spousal loss, among others. This examination utilized a theoretical lens positing that stress is a function of perceived loss (Hobfoll, 1989). The assumption was made that different types of spousal loss have different cultural meanings, therefore leading to different outcomes of mental health distress as an indication of that differential stress. Furthermore, to account for other losses and supports that might better explain variation in mental health distress symptoms, number of children, years since the loss, social problems, and sense of community were controlled in the model as predictors. Previous research supports the idea that women who are widows experience higher levels of mental health distress than their counterparts of other marital statuses. This study sought to understand if types of spousal loss connected with larger community trauma associate with variation in mental health distress differently than experiences of spousal loss and widowhood connected with more neutral or singular causes.

The first hypothesis examined in this study was that spousal loss as a result of war and tsunami would be associated with greater mental health distress symptoms compared to other causes of spousal loss. Findings did not support this hypothesis, while also indicating that the underlying assumptions were not altogether incorrect. While spousal loss as a result of war or tsunami was not associated with higher levels of mental health distress symptoms, spousal loss because of accident and “other” causes was associated with *lower* levels of some forms of mental health distress, such as anxiety and depression. Death because of accident or other causes might

be less connected with stigma or other social issues, thus holding a more neutral meaning and associating less with mental health distress. There may be fewer reminders or feelings of blame associated with these more neutral types of spousal loss. Previous research has suggested that losses because of an accident or natural causes may be associated with fewer negative outcomes than socially stigmatized bereavements such as suicide (Bailey et al., 1999).

Yet, overall it would appear that different types of spousal loss within this sample do not associate with significant variation in distress for women who are widows. This indicates that different types of spousal loss may not hold significantly different meanings, perhaps because spousal loss is difficult in terms of the challenges the loss brings about, regardless of the type of spousal loss.

The second hypothesis stated that higher sense of community would be associated with lower mental health distress. Findings supported this hypothesis in that higher sense of community was associated with lower depression, anxiety, and posttraumatic stress symptoms, indicating that sense of community is perhaps a protective factor against mental health distress. Previous literature also speaks to the significance of community belonging in aiding mental health and decreasing stress among populations of older women (Pellman, 1992; Young, Russell, & Powers, 2004). From a COR perspective, higher sense of community may be protective for widows because positive relationships can facilitate resource acquisition (Hobfoll, 1989).

Third, it was hypothesized that higher numbers of social problems would associate with higher mental health distress. Social problems significantly inversely associated with mental health distress symptoms. Social problems in this study were measured as those issues that a woman may face in her interactions with others, such as living alone, fear of abduction, or being unable to conduct cultural activities. These problems relate to a widow's context of living, or

how she experiences her daily life without a spouse. Along with sense of community, this variable illustrates the context of a woman's day to day experience as a widow. Regardless of type of spousal loss, the daily experiences of widowed women, including challenges in providing for their families and difficulties in navigating social stigmas, may overshadow the distress of the loss itself (Pannilage & Gunawardane, 2016; Ruwanpura & Humphries, 2004; Somasundaram, 2007). In terms of COR, more social problems equate to more strain being placed on widows' resources (Hobfoll, 1989). These findings indicate that context is a highly influential variable for women experiencing life as a widow in Sri Lanka.

### **Clinical Implications**

In terms of clinical application, these results indicate that considering a client's larger context and community is essential. Because higher levels of sense of community appears to be protective for women who are widows, assessing for community support and feelings of belonging is likely to be important to either leverage these strengths or to set goals for improving community connectedness. Along the same lines, assessing for social problems related to widowhood would also be important in understanding factors that contribute to a woman's mental health distress symptoms.

These findings also indicate that it may be important to explore the impact of a woman's spousal loss on her social life. Because social context is an important factor in understanding mental health symptoms, considering the meaning of a woman's loss in her social circles may illustrate how the loss impacts her social connectedness. A woman who formerly experienced her community as cohesive and safe may experience an additional loss if her spousal loss or larger social traumas have interrupted this context. Exploring these social meanings may also help elucidate the meaning she has ascribed to her bereavement and the relating forms of stigma she

may have internalized. In other words, there may be external and internal processes of stigma requiring clinical intervention. Ideas for intervening to help widowed women presenting with potential internalized stigma might include helping her identify and challenge stigmatized beliefs and validate the reality of stigma. Furthermore, finding ways widowed women can begin to connect or reconnect with and contribute to her community in areas that would be meaningful would likely be helpful.

Furthermore, contextually salient assessment and discussion of socially-related problems is necessary in clinical work with this population. For this study, social problems specific to post-war and post-disaster Sri Lanka were measured, such as not being able to get remarried, the stress of moving to a new place, fear of sexual attacks, and being unable to conduct cultural activities. While these may be specific to this context, these types of problems connect to widowhood across contexts because they are essentially losses related to where and how a woman lives and carries out her usual activities. Thus, in a clinical setting, it would be helpful not only to process the loss a woman experiences in the form of losing an intimate relationship, but also how this loss impacts her new context and what it means for her day to day life and relationships. It appears that the more a woman's daily life is changed by her loss, the more losses may accrue and negatively affect mental health. This understanding could help clinicians assist clients in making improvements to their immediate context that can positively impact their functioning even while they process their loss. Prior research examining trauma as a process of loss has suggested that clinical conversations assessing "what is lost?" may be a helpful way to shift assessment and creatively guide intervention (Banford Witting & Busby, 2018).

### **Limitations and Future Research**

The results of this study are based on a specific population, which makes it difficult to generalize these findings outside of this setting. Because of the unique cultural implications of widowhood in Sri Lanka and particularly among Tamil women, findings may not be reflective of widowhood experiences in other contexts. Furthermore, the constructs measured in this study, such as depression, anxiety, and PTSD, may not be directly applicable to Tamil widows. While the measures for these constructs were translated, back translated and many have been validated, they may not be perfect in capturing the constructs they were designed to. In other words, these constructs may not be measuring depression, anxiety, and PTSD as they appear in Western culture. While qualitative research has found anxiety and depression to resemble culturally-based idioms of distress in Sri Lanka (Jayawickreme et al., 2009), the experiences may yet be different than what the measures are assessing. Constructs developed specifically for this population might be more useful in understanding the experience of these women through more culturally specific constructs.

Many of the categories of loss had very few women represented, which may limit the ability to find differences between types of spousal loss. Replication studies with larger numbers of participants in each category would be necessary to further support or refute the findings of the current study. Furthermore, the method of finding participants via convenience may have created a response bias. More traumatic and sudden forms of spousal loss, such as suicide and disappearance, are particularly under-represented, which may be because women experiencing these types of losses were perhaps less likely to want to talk about them publicly.

Participants were ethnically homogenous, which also limits generalizability. Future studies should include participants of other ethnic groups within Sri Lanka to better understand

the role that ethnicity plays in the experience of spousal loss and mental health. It is important to note that this study focuses on just a thin slice of the participants' total experiences. Spousal loss and resultant widowhood are just a small part of many possible traumatic experiences these women have experienced, including violence and difficulty because of war, tsunami losses, financial crises, etc. Yet, controlling for the total number of potentially traumatic events the participants had personally experienced as a predictor hampered model fit. Future studies might include variables that more accurately reflect the broader experiences of widows in order to control for other types of past and current trauma. Further, the study was also cross-sectional, which proscribes claims of causality.

COR theory provided a useful way to conceptualize stress as a function of loss to make sense of mental health outcomes in connection with spousal loss. Yet, COR has limitations. First, although COR recognizes that both subjective appraisal and objective components are important in understanding stress, COR is a reaction to appraisal-based theories and especially emphasizes looking into objective sources of stress. This objective lens is most useful when circumstances are unambiguous and where there is a strong cultural script governing behavior (Hobfoll, 2001). While the circumstances of this study appear to fit these criteria given the strong cultural scripts surrounding widowhood in Sri Lanka, it may be that some of the losses experienced by participants were more ambiguous than expected. If this is the case, ambiguous loss may account for part of the lack of association between type of spousal loss and mental health outcomes, as each woman would be more likely to experience ambiguous loss differently because of the unclear nature of the experience and lack of cultural scripts. A stress theory that is more appraisal-based might be helpful in future studies to understand the personal or intrapsychic factors that influence the impact of spousal loss in terms of ambiguous loss (Hobfoll, 2001).

Second, COR does not provide much distinction regarding the value of relationships. COR theory defines resources as a form of resource facilitation if they are good, but it does not go into depth about what defines good relationships. Thus, while COR provides a useful template for understanding how loss may drive distress, more nuanced understanding of the value of relationships and more homage to the subjective nature of stress might improve the utility of the theory in situations where ambiguous and traumatic loss are involved.

Another possible limitation of the study is that took place a significant time after the mass traumas of war and tsunami occurred. This gap might account for the relatively few differences in mental health outcomes based on cause of death; indeed, the time passed since the loss may make distinctions in loss type less relevant than the subsequent social and physical losses following bereavement. The distribution of type of spousal loss groups was lopsided toward death because of illness; thus, a more even distribution of groups would have been helpful to assess differences in variation in distress symptoms. The categorization of type of spousal loss also highlights the difficulty of pulling apart causes of death. It is difficult to disentangle illness and disappearance from mass traumas because such overarching and shared events might have contributed to illness or disappearance. Thus, parsing out cause of death was not totally straightforward.

It is also important to note that marriage does not look the same for every woman, and that these varying qualities of marriage might also lead to varying experiences of loss. Had relationship quality been assessed for, loss of relatively high-quality relationships may be associated differently with mental health distress because of the potentially different amount of personal and emotional loss associated with them. According to COR, conditions such as marriage are resources with qualifications, so the loss of a bad marriage might not be as stressful

perhaps because it was not as protective in the first place (Hobfoll, 1989). On the other hand, loss of a poor-quality or even traumatic relationship might potentially leave a widowed woman with negative internalized messages, thereby negatively influencing mental health and her ability to cope. The quality, or resource potential, of previous marital relationship was not assessed for, which left out a possibly important factor in the way a woman experienced her loss.

Future studies may be able to make headway in many of these areas. Within research based in Sri Lanka, representation from more than one ethnic group would be useful to examine the impact of ethnic experience on widowhood even within the same geographical and disaster-affected context. This is especially true given the distinctions women face in the widowhood experience in Sri Lanka along ethnic lines (Hyndman, 2008). Replication of this or similar studies in various cultural settings would be useful to further explore the impact of type of spousal loss on mental health for women experiencing widowhood in a variety of contexts. Furthermore, utilizing various and culturally specific measures of social problems and sense of community would be useful.

Future research might also focus on how a sense of community is built and what distinguishes those experiencing high levels of sense of community from those experiencing low levels. Exploring the role that collectivist culture plays on sense of community and how this looks differently in individualist cultures could be useful. An examination of how a sense of community is built and which forms of widowhood losses disrupt it the most would provide useful direction for exploring effective interventions for women experiencing widowhood in an array of cultural contexts.

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