HOW DEEP IS YOUR KAUMAHA? UNFOLDING THE EXPERIENCES OF HISTORICAL AND INTERGENERATIONAL TRAUMA AMONG WĀHINE

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DEDICATION

Kahiau Nasir Kekamahi‘ikuaokaoha, it wasn’t until I had the privilege to hānau your life that I truly understood the divine mana of being Wāhine. I love you, my love.

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ABSTRACT

Historical trauma, the collective, intergenerational wounding from mass subjugation, has been theorized to unconsciously impact Indigenous peoples, including Kānaka Maoli (Native Hawaiians). Previous research has sought to measure historical trauma as a construct that determines the health of contemporary peoples and validate its use among Indigenous populations. However, only a couple of studies have empirically documented historical trauma among Kanaka Maoli and none among Wahine only. The aim of the present research was to contextualize and measure historical and intergenerational trauma among Wāhine in an effort to validate a historical trauma scale that reflects and measures their experiences. The central hypothesis for this dissertation was that historical trauma among Wāhine is unique, and as such, any scale to measure the construct among this group should be unique as well. A mixed-method design employed 1) a systematic literature review to determine existing psychometrically valid scales measuring historical trauma among Indigenous peoples, 2) a qualitative, phenomenological study to unpack the experiences of Wāhine with historical trauma through semi-structured interviews that began with moʻokūauʻhau (genealogy) and established pilina (relationships), and 3) a factor analysis to explore the psychometric properties of an adapted Historical Loss Scale (HLS) among an all-Wāhine sample. Considering all three studies, the results suggest the following: 1) measuring historical trauma has been achieved through several, psychometrically sound scales developed with or informed by Indigenous communities, 2) Wāhine face the brunt of multilevel violence from sexism, racism, and classism both historically and contemporarily that have been traumatic for their kūpuna Wāhine and themselves, and 3) Wāhine endorse an adapted, hierarchal, three-factor HLS model that measures the impact of historical traumatic events.

LANGUAGE USE

Hawaiians and Kānaka Maoli were used interchangeably throughout this dissertation to specify Native Hawaiians. All words in ʻōlelo Hawaiʻi were loosely translated from wehewehe.org and native and proficient speaker, and cultural expert, Pahonu Coleman.

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In the Kumulipo -Hawaiian creation story-, Pō (the female night), alone, gives birth to Kumulipo (the male night) and Pōʻele (female night; Liliuokalani, 1978, p. 4). Pōʻele, or Pō, is the eldest ancestor of the Hawaiian people of whom possess familial and spiritual relationships with land and elements (Kameʻeleihiwa, 1999). In ancient Hawaiʻi, she was held in high regard as genealogical ranking meant everything to Hawaiians (Kameʻeleihiwa, 1999). Therefore, all Wāhine (e.g., female, women, Native Hawaiian women) forms of life and mana (i.e., power, spiritual power, force) were worshiped, dignified, respected and honored because of the deep respect for the eldest ancestor, Pō, a Wahine form. Kāne (i.e., Native Hawaiian men) could not deny the life-giving force and power of Wāhine. If they did, they would be disrespecting their eldest and most powerful ancestor, Pō.

In ancient Hawaiʻi Wāhine were revered for their regenerational mana, which included sexual and political power, and occupied roles that protected their mana. While sexuality and gender were recognized as fluid, "[Wāhine] procreative powers were... sources of mana" (Buck, 1993, p. 34). Sexual power allowed Wāhine to extend their genealogies, where children from different fathers increased their rank and their political power (Kameʻeleihiwa, 1999). Under ʻaikapu, a sacred social system of religious rules and rigid conducts of life, Wāhine and Kāne took on roles and participated in certain activities according to their respective gender. For example, Kāne prayed to male deities and Wāhine prayed to female deities. Most notable of the ʻaikapu was the rule of Wāhine and Kāne eating separately, which might have appeared oppressive to the western eye, but the sacredness of the system gave mana to all roles, reinforced duality, and was well-intended to protect mana.

A significant part of Hawaiian culture is the value of duality, where complementary opposites were recognized (Blaisdell, 1989). Kū and Hina are ancestral gods of heaven and earth that demonstrate the importance of duality in understanding the status and position of pre-colonial Kāne and Wāhine. Kū represents masculinity and Hina symbolized femininity. In ancient Hawaiʻi, each individual, regardless of gender, was recognized for both Kū and Hina traits, creating a balanced relationship within and with others (Paglinawan, 2013). Kū and Hina were equally appreciated for their respective mana, whereas an individual, regardless of gender, could situationally employ one more than the other (Paglinawan, 2013). For example, in times of war, Hawaiians would lean into their Kū side to address issues at hand. Kū and Hina are a

testament to the existence and reliance of all genders. Masculinity could not exist without femininity and vice versa. The presence of both Kū and Hina represented the value of balance in life, elements, and and relationships.

Traditional Hawai‘i was an egalitarian society, where both Wāhine and Kāne were valued as producers and stewards of their own social power (Kauanui, 2008; Linnekin, 1990). Therefore, political and social power was not determined by gender (Hall, 2008). Separation of female and male practices in ancient Hawai‘i was not an indication of patriarchal structures, rather it was a code of conduct under the ‘ai kapu (sacred) system (a social and religious system of beliefs and conduct) and supported the concept of duality. An example of such balance included the yearly spiritual offerings of Makahiki (a new year festival, welcoming months of fertility and peace). During Makahiki, work and worship of Kāne required the blessings of Wāhine gods in order for Kāne work to prosper (Kame‘eleihiwa, 1999). Moreover, male temples required rituals that were not aligned with the Wāhine code of conduct and vice versa. Wāhine mana and procreational power were to protected from male rituals (Kame‘eleihiwa, 1999). Wāhine were not kept from practices, instead they were meant to serve their higher purpose and protect their life-giving force (Jensen & Jensen, 2005). Additionally, kapu reinforced duality by requiring that each gender take care of their respective genders (Jensen & Jensen, 2005). For example, both Kāne and Wāhine participated in healing arts like medicine and massage and were to care for their own. Jensen and Jensen (2005) discuss how the various roles taken on by Wāhine prior to western contact demonstrated their significance in their families and communities, which gave them matched power and equal position with Kāne in Hawai‘i (Kame‘eleihiwa, 1999).

Perhaps the greatest role that Wāhine held was ali‘i mō‘ī wahine (supreme female ruler). In order to gain power, ali‘i kāne (male chiefs) sought to marry high-ranking ali‘i wāhine as they served as the transmitters of rank and mana (Buck, 1993). Periods in Hawaiian history demonstrate the secular and religious power of Wāhine. One of the most notable ali‘i mō‘ī wahine comes from the seventeenth century. Keakealaniwahine once ruled portions of Hawai‘i and acquired leadership, observances, and roles dedicated to male principles (Jensen & Jensen, 2005). Another ali‘i mō‘ī wahine, Kūkaniloko, is an example of how wahine mana contributed to an abundant Hawaiian society. In her reign, Kūkaniloko was considered great and powerful and was known to keep her districts peaceful and quiet. One of her major contributions was the

building of fishponds in Puʻuloa (presently Pearl Harbor), which fed thousands of her people. Her rule is a testament to the mana respected by all genders of kānaka (people) and deities.

Aside from aliʻi wahine, makaainana (commoner) wāhine held roles to care for their families and communities. They were fisherwomen, who fished with their children close to shore. They were also agriculturalists, who fed their communities and families and were primarily responsible for the ʻuala (sweet potato). The ʻuala could grow in less favorable places and mature in less time to supplement the kalo (taro; a staple Hawaiian food) grown by Kāne, reinforcing the concept of duality and balance of gender. In addition, Wāhine took on many other roles including being experts in the arts and beating kapa (traditional cloth made from wauke tree) to make clothing and blankets.

Colonial Impact on Wāhine and Hawaiʻi

In contrast, post-colonial literature exhibits Wāhine of the past as living in oppressive conditions, who were liberated by progressive structures of colonialism (Kaomea, 2009). For example, abolishment of the ʻaikapu social system is portrayed to have freed Wāhine from the shackles of gender oppression of pre-colonial Hawaiʻi. However, as mentioned before, Wāhine were prized for their regenerational mana. In fact, post-colonial literature silenced the mana of Wāhine and misconstrued the narrative of traditional Hawaiian society and gender ambiguity (Kaomea, 2009; Lani, 2010). To demonstrate, accounts of Captain Cook's crew and other western voyagers in 1778 and onward sexually objectified Wāhine (Beyer, 2004). The enjoyment and exchange of sexual encounters to elevate in hierarchy and mana were muddled and reduced down to portraying the promiscuity of Wāhine (Buck, 1993; Grimshaw, 1989).

Scholars like Grimshaw (1989) point out that gender in Hawaiʻi was a part of a system involving class relations and organization of work and family, which constructed and sustained Hawaiian culture and was inaccessible to American intruders (1989). Missionaries in the 1820s-1850s were also ignorant of the status of Wāhine and wrote of them with disgust and portrayed them as heathens (Bingham, 1847; 2008; Grimshaw, 1989). Unbeknownst to them, Wāhine roles and expertise in weaving mats, beating kapa for clothing, making fishing nets, fishing, gathering food, and rearing children were integral and productive in Hawaiian society. Missionary women sought to rectify Wāhine, placing Kāne as sole significant actors and limiting Wāhineʻs role to sew, cook, clean, and rear children to solely enhance the productivity of Kāne (Grimshaw, 1989). While these roles still require mana and are a functioning part of the modern-day Hawaiian

family, the perscription enforced by western settlers constricted Wāhine to a status under their husband and shamed all other non-binary genders once embraced in Hawaiian society (Merry, 2000). From the missionary perspective, the realm of the woman was in the home so that men could be free to be productive in the social sphere. In pre-colonial Hawai‘i, gender was seen as a fluid construct and non-binary genders were embraced because they possessed and embodied both Kū and Hina (Hamer & Wilson, 2014). However, western settlers diminished the mana of both non-binary and Wāhine genders. Mahu (two-spirited people; people who did not ascribe to male or female genders alone) individuals were ostracized from society and Wāhine, in particular, were excluded in numerous ways under new social structures. Lazarus-Black‘s review (2000) on Colonizing Hawai‘i: the Cultural Power of Law (Merry, 2000), points out that Wāhine “fell under the coverture of their husbands, they could not enter into contracts, they were excluded from professions, and their sexuality was repressed except in monogamous marriage... all... at odds with Indigenous notions about work, gender, sexuality, and kinship” (p. 144).

New social structures even disciplined Hawaiians for their ways of life. For example, sexual conduct policies influenced by the missionaries, who sought to establish monogamy and Christian ideals of love and marriage among the Hawaiian people, prosecuted both Kāne and Wāhine in the 1850s and 1860s for adultery and fornication (Merry, 2000). Of the 128 sexual conduct cases in the Hilo District Court between 1853-1903, only 7% had lawyers, and 82% were Hawaiian (Merry, 2000). Meanwhile, Hawai‘i had become a popular port for whaling and foreign sailors sought Wāhine to satisfy their sexual needs. Laws influenced by missionaries criminalized Wāhine, while the sexual demands of whalers and their reduced social status forced them into prostitution. At the same time, more Hawaiians were convicted of sexual misconduct during this time than foreign whalers and white settlers with many selling their half-breed Hawaiian daughters to foreigners (Arista, 2011; Merry, 2000). The white Christian intention to control sexuality and restructure kinship and degradation of the Wāhine body has led to the systematic and gendered oppression of the Hawaiian people, especially Wāhine.

Similar to other Indigenous populations, the political, social, economic, and cultural-value systems of Hawaiians were compromised after forced assimilation and illegal occupation of the Hawaiian Kingdom by white colonial settlers. More specifically, Hawaiian people suffered from massive depopulation due to western and foreign disease (Blaisdell, 1989). They were made minorities in their own homeland when the children and descendants of white missionaries

became American sugar businessmen, imported thousands of laborers from Asia, and orchestrated the illegal overthrow of the Hawaiian Kingdom in 1893 to advantage their sugar exports with the U.S. (Tengan, 2004). At the same time, Hawai‘i’s unique position in the Pacific was of great interest to the U.S. Navy as it would give the U.S. ships ideal ports and strategic advantage (La Croix, 1997). Overtime, Hawaiian culture, social and economic structures, and health were of miniscule interest in comparison to American greed and war. Haunani-Kay Trask (2004) summarizes the grave historical events on the Hawaiian people as, “disease, mass death, and land dispossession; evangelical Christianity; plantation capitalism; cultural destruction including language banning; and, finally, American military invasion in 1893 and forced annexation in 1898”.

As a nation, the Hawaiian people were displaced and forced to live in foreign paradigms without access to perform their cultural practice, language, and traditions of land stewardship. For example, the adoption of Christianity reassigned gender roles of Wāhine and Kāne and forced Hawaiians to abandon spiritual beliefs which guided their relationships with natural elements, including their intimate relationships with land and their culture. Historical events and policies illustrate how white missionaries and American businessmen intentionally sought out to deplete the Hawaiian culture and exploit the people and the land for their own gains.

Current Health Status of Wāhine

Intentional deprivation of Hawaiian power snowballed into a plethora of social, economic, and political disparities, which are the underpinnings of Wāhine health status today. Presently, Wāhine face consistent poorer health and socioeconomic outcomes when compared to major ethnicities in Hawai‘i. They experience chronic diseases at higher rates than non-Hawaiian women in the State of Hawai‘i. For example, 37.7% of Wāhine experience obesity compared to 17.6% of non-Hawaiian women (Hawai‘i Health Data Warehouse [HHDH], 2017a). In addition, 22.2% of Wāhine have asthma in comparison to 10.9% of non-Hawaiian women (HHDH, 2017a). Cancer incidence is highest among Wāhine and cancer mortality is highest among both Wāhine and Kāne (OHA, 2018; HHDH, 2017a). From 2009-2013, breast cancer mortality rates for Wāhine were 27.4% in comparison to the State average of 14.5% (University of Hawai‘i Cancer Center and Hawai‘i Tumor Registry, 2016). Aside from physical health issues, Wāhine also suffer mental health issues at a higher rate than non-Hawaiian women. To demonstrate, Wāhine rate themselves needing to improve their mental health one to two weeks

out of every month 67% more than non-Hawaiian women (HHDH, 2017a). More alarming is the mental health status of adolescent Wāhine. In particular, 9th grade Wāhine experience the highest rates of sadness or hopelessness (47%) when compared to non-Hawaiian females (35.4%) and the State of Hawai‘i average (37.7%; (HHDH, 2017a). In 2015, 42.2% of Wāhine in the 9th grade harmed themselves compared to 33.4% of non-Hawaiian female 9th graders and 19.1% of 9th grade Kāne adolescents (HHDH, 2017a).

Additionally, Wāhine encounter social and economic issues that negatively affect their ‘ohana (family) and keiki (children) health. The Office of Hawaiian Affairs (2018) is concerned that the overrepresentation of Wāhine in the incarcerated population in Hawai‘i will have intergenerational repercussions, including intimate partner violence and adverse childhood experiences (ACEs) among their children. In 2010, Wāhine made up 43.7% of the incarcerated population in Hawai‘i, but only 18.4% of the State female population (OHA, 2018; U.S. Census Bureau, 2010). They also experience being controlled or emotionally hurt by their dates/partners, and experience intimate partner violence earlier in their lives (20.6%) compared to other non-Hawaiian women (13.3%; HHDH, 2017a). When it comes to the economic well-being of Wāhine, they are paid 71 cents for every dollar white men are paid and 82 cents of which Kāne are paid (Anderson & Williams-Baron, 2017). In education, 20.4% of Wāhine have attained bachelors degrees or higher compared to 46% of white women in Hawai‘i and 33.5% of all women in Hawai‘i (Anderson & Williams-Baron, 2017). Disparities do not fall short when Wāhine become mothers. They experience the highest rates of infant mortality in Hawai‘i, as there are 8 Hawaiian infant deaths per 1,000 live births versus 3.5 deaths for white infants in Hawai‘i (HHDH, 2017b).

Despite these challenges and injustices, Wāhine and the Hawaiian nation remain resilient. They constantly battle to bring visibility and acceptance to their sovereign status and culture by promoting collectivism and aloha ‘āina (love for land; (Akaka, 2018). Wāhine have been leaders in revitalizing their culture through world-wide movements that have brought visibility to aloha ‘āina and Hawaiian people, such as Hokule‘a and Protect Kaho‘olawe (Akaka, 2018); development of Hawaiian immersion schools to educate all keiki of Hawai‘i in ‘ike Hawai‘i and ‘Ōlelo Hawai‘i (‘Aha Punana Leo, n.d.); and seminal reports like the E Ola Mau Native Hawaiian Health Needs Study (1985). The E Ola Mau Report (1985) led to formation and enactment of the Native Hawaiian Healthcare Improvement Act, which benefits Hawaiians

through the establishment of Hawaiian-serving healthcare systems, grants, and programs ("Amending the Native Hawaiian Health Care Improvement Act, S. 87," 2001). While these successes and more have awoken a nation, the entanglements with the U.S. government and the State of Hawai‘i still exist to cause adverse experiences among Hawaiians. As Trask (2004) alludes,

> "colonialism began with conquest and is today maintained by a settler administration created out of the doctrine of cultural hierarchy... in which... whiteness dominates darkness [people of color].... a country in which race prejudice... obeys a flawless logic [and] if inferior peoples must be exterminated, their cultures and habits of life, their languages and customs, their economies, indeed, every difference about them must be assaulted, confined, and obliterated" (p.10).

Trask's theory is apparent in numerous efforts to establish a program or a policy to protect Hawaiian culture, lands, and people, which have been met with backlash from American and foreign-invested organizations. Most recently, Hawaiians are facing more desecration of sacred lands or threats thereof. The State of Hawai‘i and the University of Hawai‘i (of which aims to create a Hawaiian place of learning) have supported the efforts of a Thirty Meter Telescope (TMT) construction on Mauna Kea, a sacred mountain (Watson-Sproat, 2019). The process of gaining approval for construction has been questioned and contested for decades for not including the community in decision-making and undermining cultural experts who have recommended against construction through cultural impact assessments (Patao, 2017). An issue like TMT is an illustration of Hawaiians‘ familial relationship with land, which if threatened, may contribute to poorer health outcomes (Antonio, in-progress; Keali‘iholokai et al., in-progress). TMT is also an example of how Indigenous people are excluded from decisions that impact their own lands, culture, and health, an issue that prevents self-determination and increases harm (Gilio-Whitaker, 2019; Jacobs-Shaw, 2017). In addition, it reminds us of how numerous Hawaiian-interests have been met with contention. Within these plights, Wāhine are faced with undoing the wrongs of western influence and colonization.

Trauma and Wāhine Health

Scholars have gone beyond biomedical models to understand racial/ethnic health disparities (Brave Heart et al., 2011; Evans-Campbell, 2008; Walters et al., 2011). Various types of trauma have been explored to inform population health, including historical and

intergenerational trauma. Researchers have identified historical trauma as a determinant of racial/ethnic health disparities (Sotero, 2006). Historical trauma is caused by major historical and political events like genocide, removal, forced assimilation, and abolishment of religions and its impacts can be transmitted to predecssing generations (Debruyn, 1998; Heart, 2003; Sotero, 2006). Therefore, those who did not personally experience the traumatic event can still physiologically and psychologically carry the trauma within and respond as if they had personally experienced that trauma. For Indigenous peoples, western colonization inflicted mass trauma across generations ago by subverting norms that maintained balance in society with western structures that uprooted gender roles, traditional food systems, and cultural practices that maintained their health. This trauma contributed to higher prevalence of diseases seen today (Brown-Rice, 2013; Debruyn, 1998). The cumulative trauma of colonization and ongoing repercussions of colonization have largely contributed to the health outcomes of Indigenous people, including Wāhine. The process of historical trauma has been described "as an etiological factor; as a particular type of trauma response and syndrome; as a pathway or mechanism to transfer trauma across generations; and as a historical trauma-related stressor interacting with other proximal stressors" (Walters et al., 2011, p. 182). More recent studies have shown biological pathways for historical trauma through modification of the epigenome, which affect health (Conching & Thayer, 2019; Walters et al., 2011). For example, stressful environments can lead to malnourishment of mothers during key gestational periods, which can impact children who may develop cardiovascular disease in adulthood (Kuzawa & Sweet, 2009). Moreover, previous research with Holocaust survivors demonstrates that trauma epigenetically changes offspring and their own response to stress and trauma (Yehuda et al., 2015). Wāhine and Indigenous people all over the world continue to embody historical trauma, physically, emotionally, spiritually, and mentally through historical, cultural disruption. However, this disruption is not only historical, as traumatic, violent, racist, and sexist policies and institutions entrenched on colonial structures and thinking continue to manifest and exist in contemporary times, which systematically work to disempower Indigenous peoples, including Wāhine.

Intergenerational trauma is described as "responses to trauma manifested psychologically as unresolved grief across generations" (Brave Heart et al., 2011). It is the long-lasting impact of unresolved historical trauma, which has been associated with psychological, social, economical, physical, structural, and political outcomes for contemporary members whom did not experience

the initial trauma (Crawford, 2014; Debruyn, 1998; Evans-Campbell, 2008; Mohatt et al., 2014). Intergenerational trauma can be seen as an example of structural violence. Structural violence refers to non-physical, subtle but powerful assault embedded in systems and structures that create disparities for groups based on race, age, gender, class, immigration status, sexual identity, etc. (Winter & Leighton, 2001). It promotes interpersonal and intergenerational trauma by creating unequal access to determinants of health like housing, health care, employment, and education, which shapes gendered forms of violence (Montesanti & Thurston, 2015). To the author's knowledge, little to no research has been done to show the association of structural violence and intergenerational trauma among Wāhine. However, health status reports describe disparities among Wāhine that could be caused by structural violence. For example, 26.2% of Wāhine mothers had less than a high school education in 2015 compared to 17.5% of the mothers in the State of Hawai‘i (Warehouse, 2017a), which has implications for improving family health, child survival, and investment in children (OHA, 2018). Structural forces have worked against Wāhine to prevent them from equity and justice in various institutions which maintain the status quo and perpetuate suppression.

Scholars from multiple disciplines have examined how Wāhine have experienced historical, intergenerational, and interpersonal trauma and violence. Haunani-Kay Trask, a Hawaiian political science scholar and activist, described the disorder of gender duality through aloha ‘āina movements in the 1970‘s as ‘double colonization’. The term refers to the liberation of the Hawaiian nation and lands being of greater priority than the liberation of Wāhine (Trask, 1984). In other words, Wāhine have been colonized twice; once by western settlers and again by Kāne who have taken on patriarchal customs and value systems of western society. Therefore, any effort to liberate Wāhine during this time was discouraged by Kāne. Instead Wāhine were limited to caring for the children and excluded from Kāne-led discussions and planning of these movements. Trask's account highlights how Wāhine voices and roles were diminished through western systems. Other Indigenous women have experienced similar conditions, where they have had to challenge not only colonial settlers, but their own families and Kāne in their communities to have their voices heard (Million, 2009).

Moane (1996) and Kanuha (n.d.) have explained six strategies men use to dominate women that are identical to the domination and systems of oppression enforced by colonizers. The first strategy is ethno-cultural superiority, where men's ways of thinking and knowing are

superior the same way colonizers believed their intelligence and ways of life were superior. The second strategy is "othering", where men's ideas are central, and women are relegated as the "other" to enforce marginalization just as colonizers differentiate themselves from their victims. The third strategy is for men to practice physical, emotional, psychological, and spiritual violence parallel to how colonizers utilize all forms of violence on the colonized. The fourth strategy includes "men control[ling]… economic resources and constrain[ing] women from access to their social and familial resources", which Kanuha argues is equivalent to colonizers stripping Hawaiians of their land and thus familial connections (Kanuha, n.d., p. 4). The fifth strategy is men controlling and determining what is acceptable identities and objectifying the portrayals of women similar to how colonizers define what is "acceptable/exotic" (Kanuha, n.d., p. 4). The sixth and final strategy is to exclude women from power, just as colonizers excluded Indigenous peoples from power. The strategies provide theoretical backing of double colonization. Kanuha argues that colonization did not work alone in violence against women, but that colonization and patriarchy work simultaneously to violate and oppress women. Patriarchal colonialism has caused adverse experiences for all Indigenous people, regardless of gender, but the experiences of colonization for women are significantly different than men (Kanuha, n.d.). The unique experiences of women have implications for violence experienced by Indigenous women from their partners. Winter and Leighton (2001) found that those who are chronically oppressed through structural violence and systems of oppression commit acts of direct violence. Through such violence, patriarchal, gender-based social hierarchies, Wāhine have continuously been denied the same opportunities afforded to their white and male counterparts.

Indigenous Feminist Theory

The Indigenous feminist theory can be applied to redistribute power to Wāhine and revitalize the balance of duality once pivotal in Hawaiian society. The theory commits to the liberation of all people by bringing forward the presence of Indigenous people and all people of color. While feminist theorists aim to elevate statuses of women alone, Indigenous feminist theory, "seeks to transform the world through Indigenous forms of governance... [that is] beneficial to everyone" (Smith, 2011) and commits to an anti-imperial and anti-racist agenda (Barker, 2015). This theory is important as settler colonialism enforced the erasure of Wāhine and their national sovereignty through systematic structures. Indigenous feminist theory centers collectivist efforts, dismantles patriarchal colonialism, and analyzes gendered impacts of

colonization (Hall, 2008). It aims to address the forms of violence against women and violence on anyone within Indigenous nations, including land.

Scholars like Hall (2008) believe in decolonization to liberate Indigenous women and women of color "from all the elements that damage [their] lives, no matter what their origin" (p. 277). Decolonial strategies have the potential to address and disrupt the way patriarchal colonialism has worked internally in Indigenous communities (Hall, 2009). This dissertation will be in pursuit of decolonizing work to liberate Wāhine from systematic and interpersonal violences that impact their health. While this dissertation alone cannot complete this work, it will move the agenda forward by creating a space for Wāhine voices to be heard (Tolley et al., 2016). This study builds on the work of other Indigenous women who have spoken and written from their own experiences and awoken the moʻolelo (stories) of ancient Wāhine and akua (gods; Akaka, 2018; Jensen & Jensen, 2005; Kaomea, 2005; Lipe, 2015).

Purpose of this Dissertation

To bring visibility to Wāhine, **this study seeks to understand their experiences of historical and intergenerational trauma.** Current strategies to address historical and intergenerational trauma and structural violence in public health include culturally grounded programs that focus on individual health (Kaholokula et al., 2019). While these programs have been beneficial for individual participants and have shown favorable outcomes (Kaholokula et al., 2021; Mokuau, Braun, & Daniggelis, 2012), it is unclear how impactful they have been in addressing historical trauma and structural violence. Furthermore, a sense of victim-blaming can be reinforced through individually-based programs, as they are focused on changing the colonized and not holding the colonizer accountable. Repercussions of colonization like poor health, displacement, poverty, homelessness, and other outcomes are still existent.

Previous scholars have found that prevalence of historical trauma is related to substance abuse and other psychological outcomes in several Indigenous communities, including Native Hawaiians (Pallav Pokhrel & Thaddeus A. Herzog, 2014; Whitbeck et al., 2009). Scholars like Pokhrel and Herzog (2014) employed the Historical Loss Scale (HLS) and the Historical Loss Associated Symptoms Scale (HLASS) with Hawaiians to understand these associations. Specifically, they found that thoughts of historical trauma may be associated substance use behavior among Hawaiian community college students. While this was an important finding, the sample in their study was limited to community college students and risked coverage error

(Dillman, 2014). Furthermore, the scales were developed and previously validated among Native American populations but not with Hawaiian populations. While Pokhrel and Herzog removed items irrelevant to Hawaiians, they did not validate their revised scale with a Hawaiian sample. Nevertheless, Walls & Whitbeck (2012) suggest that HLS be adapted for different populations. Wāhine are among many populations that could benefit from empirical evidence of their contemporary and historical gender and racial identity adversities. Accordingly, the overall purpose of my dissertation was to deepen the understanding of historical and/or intergenerational trauma among Wāhine and to psychometrically test a historical trauma scale to begin to build numerical evidence of the impact of historical trauma on their adversity.

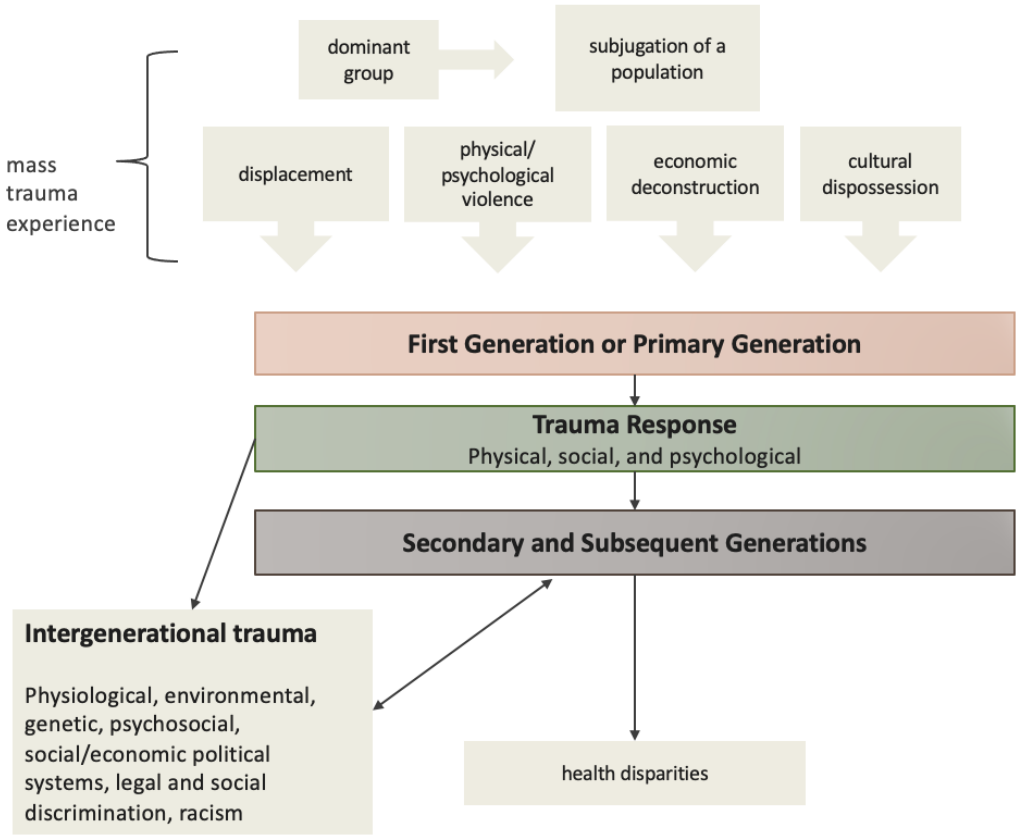
Based on research and existing gaps in the literature, the goals of the current dissertation were to: 1) conduct a systematic literature review to identify existing, psychometrically validated measurements/scales of historical trauma among Indigenous peoples, 2) conduct in-depth qualitative interviews withWāhine to understand their experiences of historical and/or intergenerational trauma by conducting qualitative interviews, and 3) collect quantitative survey data to psychometrically validate a historical trauma scale with a Wāhine sample.

Description of Conceptual Model

Sotero's (2006) Conceptual Model of Historical Trauma was adapted to fit the current dissertation research. The original model outlines physical, psychological, and social pathways from historical trauma to health disparities. It begins by linking mass trauma experiences of a population to trauma responses that impact secondary and subsequent generations. Furthermore, it illustrates how the legacies of mass trauma are intergenerationally transmitted through physiological, genetic, environmental, psychosocial, social/economic/political systems, and legal and social discrimination. In the adapted model, as illustrated in Figure 1.1, patriarchy and gendered violence is added to demonstrate the unique way in which Indigenous women, including Wāhine, have and are experiencing historical trauma. It recognizes intergenerational trauma as a result of physical, social, and psychological responses to unresolved trauma from historical trauma. In addition, it demonstrates how if intergenerational trauma is left unresolved, this could lead to poor health outcomes. Study 1 aimed to focus on the historical and intergenerational trauma parts of the adapted conceptual model. Quantitative scales measuring historical and/or intergenerational trauma experiences were identified and assessed to understand their psychometric validity and reliability. In Study 2, contemporary Wāhine historical and

intergenerational trauma experiences were explored with a qualitative research design. In Study 3, the most widely accepted historical trauma scale was employed with a Wāhine sample to test its psychometric valditity and reliablity.

Figure 1.1 Adapted Historical Trauma Conceptual Model



Research Questions

RQ1: What are the components and psychometric properties of existing scales that measure historical and intergenerational trauma prevalence among Indigenous populations in the U.S?
RQ2: What are the experiences of historical and intergenerational trauma among Wāhine?
RQ3: What are the psychometric properties of the adapted Historical Loss Scale among a Kānaka Maoli sample?

CHAPTER 2 . PSYCHOMETRICALLY VALIDATED HISTORICAL AND INTERGENERATIONAL TRAUMA SCALES FOR INDIGENOUS PEOPLE: A SYSTEMATIC LITERATURE REVIEW

Abstract

Historical trauma has been theorized and measured as a determinant of health among Indigenous peoples. There is a need for valid tools to convey the perpetual adversity that historical trauma presents. The objective of this systematic literature review was to perform a psychometric review of historical trauma measurement scales developed for Indigenous peoples according to the COSMIN checklist and the Indigenous Quality Assessment Tool (IQAT). Various databases were utilized to conduct a literature search. Eligible studies needed to describe psychometric testing or employed a scale that had been previously psychometrically tested. A total of 21 studies were published using a historical trauma scale, but only six described psychometric testing among their study sample. The remaining studies were assessed for associated outcomes. Overall, the scales demonstrated good validity and reliability, regardless of IQAT scores. Psychometrically testing scales for study populations are integral, as cultural and geographical differences exist, even between Indigenous groups.

Introduction

Although Indigenous peoples have transcended and survived through colonialism and imperalism, they continue to experience health and social disparities. One determinant of health attributed to those disparities is historical trauma, defined as the cumulative and collective emotional and psychological wounding passed down to multiple generations (Brave Heart, 1999; Debruyn, 1998; Duran, Duran, Brave Heart, Horse-Davis, 1998). The development of Indigenous historical trauma as a concept is attributed to Dr. Maria Yellow Horse Brave Heart, a social worker and professor who developed the term after learning about children of Holocaust survivors. Modeling after research that described the trauma transcendence among Jewish Holocaust survivors and their children, Dr. Brave Heart wanted Native American grief to be widely recognized and accepted as an Indigenous determinant of health and began integrating historical trauma interventions in her clinical work with Native Americans. She described the reaction to historical trauma as trauma response, which manifests as depression, PTSD, sucide ideation, etc. When trauma is left unresolved, it is unintentionally passed down to subsequent generations even without first-hand experience of initial mass subjagation (Brave Heart, 1998;

Sotero, 2006). Through her clinical work, Dr. Brave Heart was able to help Native Americans recognize and work through their grief.

Many Indigenous scholars, especially within health disciplines, have since applied the term to their work in their own communities, linking historical trauma to chronic disease, poor mental health, and other health outcomes among contemporary generations (Kaholokula et al., 2009; McCubbin et al., 2008; Rezentes, 1996). The discourse has contributed to the urgency of addressing disparities among Indigenous people with culturally adapted and grounded modalities. Walters and Simoni (2002) developed the Indigenist Stress Coping Model, which theorized historical trauma as a stressor and traditional health practices as cultural buffers to health outcomes.

Empirically testing historical trauma perceptions in contemporary populations has been attempted. In 2004, Whitbeck, Adams, Hoyt, and Chen developed some of the first measures of historical trauma, the Historical Loss Scale (HLS) and Historical Loss Associated Symptoms Scale (HLASS), to understand its prevalence and association with various psychological symptoms and health behaviors among Native Americans. HLS measured frequency of thought of historical losses and HLASS measured emotional and psychological symptoms. Their aim was to empirically demonstrate the relationship between perceptions of historical trauma and emotional and psychological health of contemporary generations. In a previous systematic review by Gone and colleagues (2019), the scales were summarized with associated outcomes in the United States and Canada among American Indian, Alaska Natives, and Native Hawaiians. They found that most studies resulted in statistically significant higher indication of historical trauma and adverse outcomes like suicide ideation, smoking, substance use, depression, anxiety, etc. However, Gone and colleagues highlighted the lack of a consistent scoring methodology, which limited findings to specific populations and lacked standardization to make change in health policy and practice. They also highlighted the ambiguity of the term itself, which may be clouded with overlapping categories of colonialism, drastic change, and other adversities, and suggested that Indigenous historical trauma require further theoretical development to support validation of the construct. Nevertheless, historical trauma is widely endorsed as a determinant of Indigenous health and therefore, validation of historical trauma measurements have already been conducted and published. Exploration of scale validation among existing scales of historical trauma can give insight into the accuracy of findings and determine their reliability of use

beyond populations outside of original study samples.

Validating scales usually involves a three-stage process including: pre-testing questions with content experts, piloting the scale items with a defined sample population, and assessing the scale's psychometric properties using statistical procedures (Boateng, Neilands, Frongillo, Melgar-Qunonez, & Young, 2018). Psychometric properties, or a scale's validity and reliability determine the adequacy, relevance, and usefulness with a particular population through statistical coefficients (Muralidharan, 2018). Given the differences in historical trauma experiences among various Indigenous populations, assessing the psychometric properties and other methods of validation, like scale development, can provide insight to the generalizability of scales.

Scale development informed by people who represent respondents' cultures, values, and experiences can increase face validity. This is important among scales aimed at describing Indigenous health as historically, Indigenous communities have suffered through unethical treatment in research studies. Scholars like Linda Tuhiwai Smith (cite decolonizing methodologies) have written at length about the intertwinement of the research process with colonization, where western epistemologies utilized to oppress Indigenous peoples are upheld in studies and perpetuate barriers to Indigenous health. She also emphasizes Kaupapa Maori, where Indigenous people of Aotearoa (New Zealand) reclaim the process of research by "researching back." A part of "researching back" is being critical of the research undertaken in Indigenous communities (Humphrey, 2001). Therefore, the process of validation that includes Indigenous communities in scale development has the potential to increase validity and can promote safe, respectful, and credible research that transcends from harmful and exploitative to collaborative, culturally sensitive, and community-oriented research.

Scales that measure historical trauma that possess sound validity and reliability may produce data that is meaningful for Indigenous populations. On the other hand, poor validity and reliability support the inferences made by Gone and colleagues (2019) that historical trauma needs further theoretical development. Nevertheless, a review of psychometric properties of current historical trauma scales remains non-existent.

Purpose

The purpose of this systematic literature review was to identify and summarize the development of existing scales of historical trauma, determine the most widely utilized scale, and assess their psychometric properties. This systematic review answers the following research

questions:

- What scales exist and what scale is the the most widely utilized to measure historical trauma among Indigenous people?
- What was the process of developing the scale that might add to its validity?
- To what extent have the psychometric properties of the scales been evaluated?

Application to Conceptual Model

This study was informed by the Historical Trauma Conceptual Model (Sotero, 2006). The model describes the pathway of historical trauma that manifests in adverse experiences of contemporary populations. Scales of historical trauma attempt to measure the construct itself with outcomes mentioned in the conceptual model. Various studies were reviewed to understand how researchers are empirically measuring historical trauma.

Methods

Aim

The aim of this study was to review the literature to understand what measurements of historical trauma exist and how they were developed, as well as to review the psychometric properties of those measurements.

Design

The review was reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009), as it is recommended by peer reviewers to critically appraise systematic reviews. Each study included in this review was also appraised with two quality measurements: the COSMIN Checklist, which assesses a scale's psychometric properties, and the Aboriginal Indigenous Community Quality Appraisal, which evaluates inclusivity of Indigenous expertise in scale development (Harfield et al., 2020). Both quality measurements were described in greater detail below.

Search Methods

The search strategy was determined by consultation of a librarian, which included the following search term: (historical trauma or intergenerational trauma or historical oppression) AND (Indigenous or native Americans or aboriginal or first nations or native Hawaiians) AND (measure or scale or inventory or assessment or questionnaire or instrument or psychometrics). An electronic literature search was conducted August 2021 in PubMed, EBSCO Host (inclusive of the following databases: Academic Search Complete, CINAHL, Health Source:

Nursing/Academic Edition, Psychology and Behavioral Sciences Collection, Social Work Abstracts, Historical Abstracts, and Legal Collection), PsycINFO, ProQuest Sociological Abstracts, and Web of Science.

After primary searches were completed, duplicate articles were removed, and the identified publications went through multiple tiers of review. First, the titles and abstracts were screened for relevance using the Rayyan QCRI Systematic Review web application (Ouzzani, Hammady, Fedorowicz, & Elmagarmid, 2016). Following the title and abstract review, two reviewers screened full-text articles and decided on inclusion based on the selection criteria. The reference lists of all included articles were assessed for relevant references and underwent review of inclusion and exclusion criteria. Included full-text articles were synthesized into an Excel spreadsheet database. The following information was included in the database for information review: reference, scale name, developers/authors, sample population description, number of scale items, number of response options, and associated outcome(s) if any. Lastly, data from each article was extracted according to the Consensus-based Standards for the selection of health status Measurement INstruments (COSMIN) guide and the adapted Aboriginal and Torres Strait Islander Quality Appraisal Tool as described in greater detail below.

Inclusion and exclusion criteria

Articles were considered for review if they measured historical trauma and published in English in a peer-reviewed journal. In addition, the selection of studies was restricted to Indigenous populations occupied by the United States and Canada given American Imperialism and fluidity of borders between the two countries. To understand which scales were widely used, all articles that measured historical trauma were included, however, the original study that described the scale‘s development had to have reported psychometric properties. Articles which did not report on psychometric properties were not appraised using quality tools, however, their associated outcomes were documented. For example, studies that employed the Historical Loss Scale were included regardless of psychometric testing because the original study, included in the review, reported on the scale’s psychometric properties (Whitbeck et al., 2004).

Quality Appraisal

Following study selection, articles which described scale development and/or validation were assessed with the Consensus-based Standards for the selection of health status

Measurement INstruments (COSMIN) Risk of Bias checklist (Mokkink et al., 2019) and the Aboriginal and Torres Strait Islander Quality Appraisal Tool (Harfiled et al., 2018).

The COSMIN Risk of Bias checklist was developed to evaluate patient-reported outcome measures (referred to as scales in this study) or self-administered questionnaires, as measure utilization often varies and the most reliable and/or valid one may not be selected for use (Mokkink et al., 2019). It evaluates measures based on various criteria, including study design and psychometric properties (validity and reliability). In this study, the COSMIN checklist was employed to assess study design, structural validity, and internal consistency (see Table 2.1). Each study included in this review were rated on the three topic area's standards with a 4-point rating scale (3=very good, 2=adequate, 1=doubtful, and 0=inadequate) for a possible total of 54 points, a higher score indicating strong methodological choices. Each topic area's scores were summed, and means were reported to illustrate each study's strength in study design and psychometric properties.

In addition to the COSMIN checklist's standards, the current study further assessed structural validity by reporting of classical test theory acceptable goodness-of-fit statistics: Root Square Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Standardized Root Mean Squared Residual (SRMR). Acceptable values included RMSEA ≤ 0.08, CFI ≥ 0.95, SRMR ≤ 0.08 (Hooper et al., 2008; Hu & Bentler, 1999). Acceptable internal consistency was also further assessed by reporting of Cronbach Alpha (α) and McDonald's Omega (ω) reliability statistics. Acceptable values were as follows: $\alpha \geq 0.80$ and $\omega \geq 0.70$ (Nunnally & Bernstein, 1994; Tavakol & Dennick, 2011). Lastly, any other forms of validity reported by author were documented.

Table 2.1 COSMIN Checklist Appraisal

Topic	Standards
Study design	
General recommendations for the design of a study	1. Provided a clear research aim 2. Provide a clear description of the construct to be measured 3. Provided a clear description of the development process of the measurement, including a description of the target population 4. The origin of the construct should be clear: provided a theory, conceptual framework (i.e., reflective or formative model)

Topic	Standards
	5. Provided a clear description of the structure of the measurement (i.e., the number of items and subscales included in the measurement, instructions given and response options) and its scoring algorithm 6. Provided a clear description of existing evidence on the quality of the measurement 7. Provided a clear description of the context of use 8. Provided a clear description of in- and exclusion criteria to select participants 9. Provided a clear description of the method used to select the participants for the study (e.g., convenience, consecutive, or random) 10. Described whether the selected sample is representative of the target population in which the measurement will be used
Validity	
Structural validity	1. For Classical Test Theory (CTT): performed confirmatory factor analysis 2. For CTT: provided clear information on how the analysis was performed 3. Performed the analysis in a sample with an appropriate number of participants 4. Provided a clear description of how missing items were handled
Reliability	
Internal consistency	1. Checked whether a scale or a subscale is unidimensional 2. Performed the analysis in a sample with an appropriate number of participants 3. Provided a clear description of how missing items were handled 4. For continuous scores: calculated Cronbach's alpha or Omega for each unidimensional scale or subscale

Topic	Standards

Note. Each standard was rated 3=very good, 2=adequate, 1=doubtful, or 0=inadequate as articulated in COSMIN standards.

All articles were also appraised with the Aboriginal and Torres Strait Islander Quality Appraisal Tool (Humphrey, 2001), called the Indigenous Quality Appraisal Tool (IQAT) in the current study. The tool was developed to rate how well Indigenous epistemologies are privileged in research studies. In addition, content expert review is an integral part of scale validation (Harrison, 2021; Harrison & Azama, 2020). Because members of Indigenous communities are the experts, community members should be involved in the development, validation, and data interpretation of these scales. Although Harfiled and colleagues (2018) designed the tool to appraise the quality of studies, manuscripts, and proposals related to community rigor with Aboriginal and Torres Strait Islander populations, the standards were transferrable to all Indigenous communities. It possesses a total of 14 standards that assesses community consultation, leadership on the research team, involvement of community protocols, guidance by an Indigenous research paradigm, and more (see Table 2.2). Each article was assessed based on the adapted 14 items with answer choices “yes”, “partially”, “no”, or “unclear”. Each item received one of the following scores: yes=2, partially=1, no=0, or unclear=0. Scores were issued to each article out of 28 total points. The appraisal tool can be found in Table 2.

Table 2.2 Indigenous Quality Appraisal Tool

Question
1. Did the research respond to a need or priority determined by the community?
2. Was community consultation and engagement appropriately inclusive?
3. Did the research have appropriate Indigenous research leadership?
4. Did the research have Indigenous governance?
5. Were local community protocols respected and followed?
6. Did the researchers negotiate agreements in regard to rights of access to Indigenous peoples’ existing intellectual and cultural property?
7. Did the researchers negotiate agreements to protect Indigenous peoples’ ownership of intellectual and cultural property created through the research?

8. Did Indigenous peoples and communities have control over the collection and management of research materials?
9. Was the research guided by an Indigenous research Paradigm?
10. Does the research take a strengths-based approach, acknowledging and moving beyond practices that have harmed Indigenous peoples in the past?
11. Did the researchers plan to and translate the findings into sustainable changes in policy and/or practice?
12. Did the research benefit the participants and Indigenous communities?
13. Did the research demonstrated capacity strengthening for Indigenous individuals?
14. Did everyone involved in the research have opportunities to learn from each other?

Note. Each standard was rated 2=yes, 1=partially, 0=no or unclear.

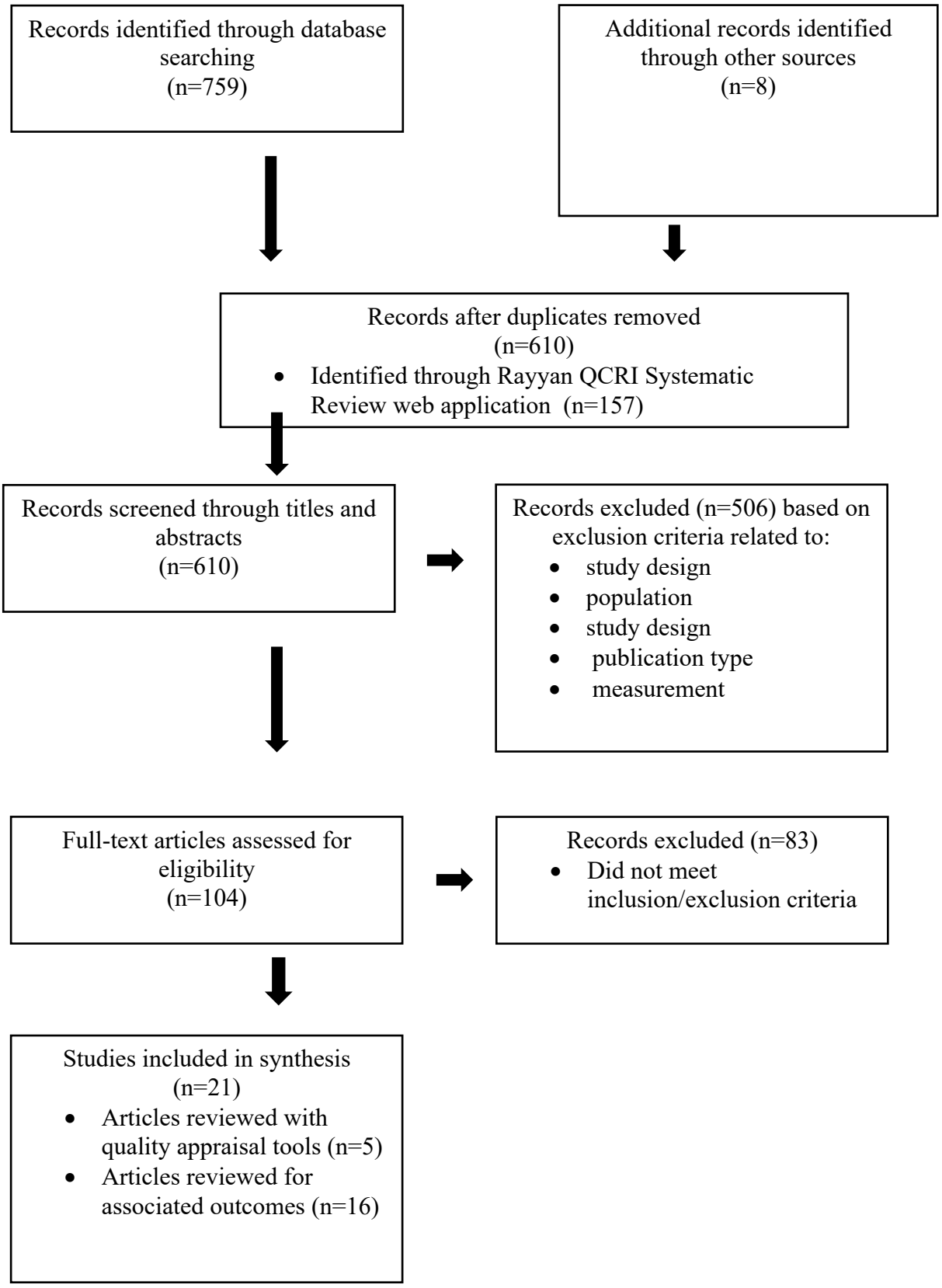
Results

This section contains findings of the study selection, general characteristics of the historical trauma scales found, their methodological quality according to the COSMIN checklist and their cultural/community rigor according to the IQAT.

Study Selection

Figure 2.1 displays the flow diagram of the search from screening to the final sample of included studies. As shown, 83 articles were excluded at the full-text screening phase due to their lack of psychometric property reporting within the article or within the scale's original article. Articles without psychometric information were only included if the original authors/developers of the respective scale included psychometric testing in their studies. In total, 21 articles met the inclusion criteria and were included for review. However, only six articles were appraised using COSMIN and IQAT.

Figure 2.1 PRISMA Flowchart Diagram



Scale Characteristics

A total of five scales reporting psychometric properties were identified, including the following: the Historical Loss Scale (HLS), Adolescent Historical Loss Scale (AHLS), Historical Consciousness Scale (HCS), Historical Loss Associated Symptoms Scale (HLSS), and the Historical Oppression Scale (HOS). AHLS was psychometrically tested in two separate studies and therefore, six total articles were synthesized.

All articles developed scales for Indigenous populations and sampled primarily from various Native American populations to validate their respective scales. The number of scale items ranged between four to twelve items and response options ranged from three to six-point Likert scales.

Table 2.3 summarizes the scales, including their original study sample, dimensionality of the scale, number of items, number of response options, number of studies found that utilized the respective scale, other populations sampled from, and outcomes associated with the scales. Each scale is described in greater detail below.

Table 2.3 General characteristics of the five selected articles

Scale name	Developers	Original study sample demographics (n, age, gender, ethnicity, location)	Dimensionality	# of items	Response options	# of studies used	Other study samples	Associated outcomes
Historical Loss Scale	Whitbeck, Adams, Hoyt, & Chen (2004)	n=143, 28-59 years, 111 females, Native American, Midwest U.S. & Ontario, Canada	Unidimensional	12	6-Point	13	Assiniboine, Sioux, Ojibwe, Odawa, Bodewadmi, Cherokee, Kiowa, Dine'/Navajo, Apache, Comanche, & Lumbee Native Hawaiians First Nations peoples	↑ anxiety, anger, depression, loss-related symptoms, multiple concurrent partners, binge eating behaviors, substance abuse dependence, identification with American way of life, traditional spiritual activities, interpersonal difficulties, ethnic identity, stressful life events, smoking, historical traumatic events, perceived ethnic discrimination ≠ marijuana use

Scale name	Developers	Original study sample demographics (n, age, gender, ethnicity, location)	Dimensionality	# of items	Response options	# of studies used	Other study samples	Associated outcomes
Adolescent Historical Loss Scale	Whitbeck, Walls, Johnson, Morrisseau, & McDougall (2009)	n=459, 11-13 years, North American Indigenous, Midwest U.S. And central Canada	Two-factor F1 governmental and institutional policies and practices F2 personal and cutlural losses	10	6-Point	2	Native Americans First Nations	↑ ethnic identity, desire to socialize with other AI, perceptions of discrimination, rumination, adult financial strain, adolescent depressive symptoms, youth discrimination, youth and family stressful life events ↓ adult warmth and support ≠ suicidal ideation
	Armenta, Whitbeck, & Habecker (2016)	n=636, Mage=12.09 years (SD=.86), North America (American Indian Reservations/First Nations Reserves)	Three-factor F1 cultural loss F2 loss of people F3 cultural mistreatment	8	6-Point	1	Native Americans First Nations	N/A

Scale name	Developers	Original study sample demographics (n, age, gender, ethnicity, location)	Dimensionality	# of items	Response options	# of studies used	Other study samples	Associated outcomes
Historical Consciousness Scale	Jervis et al. (2006)	n=3,084, 15-54 years, Native American, South West and Northern Plains, U.S.	Unidimensional	4	3-Point	0	N/A	N/A
Historical Loss Associated Symptoms Scale	Whitbeck, Adams, Hoyt, & Chen (2004)	n=143, 28-59 years, 111 females, Native American, Midwest U.S. & Ontario, Canada	Two-factor F1 anxiety/depression F2 anger/avoidance	12	5-Point	8	Various Native American nations (Assiniboine, Sioux, Anishinaabe, Cherokee, Kiowa, Dine‘/Najavo, Apache, Comanche, & Lumbee) First Nations peoples	↑ multiple concurrent partners, maladaptive coping strategies, depression symptoms, PTSD symptoms, lifelong PTSD, poly-drug use, substance abuse dependence, alcohol use, binge eating behaviors, assaultive trauma, anxiety or affective disorder, historical loss thoughts, historical loss ↓ psychological resilience, family

Scale name	Developers	Original study sample demographics (n, age, gender, ethnicity, location)	Dimensionality	# of items	Response options	# of studies used	Other study samples	Associated outcomes
								cohesion ≠ marijuana use
Historical Oppression Scale	McKiniley et al. (2020)	n=127, 18 years+, South Eastern Native American Tribes, Gulf of Mexico and Gulf Coast, U.S.	Unidimensional	10	5-Point	1	Native Americans from Southeastern and Gulf of Mexico/Gulf Coast, U.S.	↑ depressive symptoms, Historical Loss Scale, Opression Questionnaire ≠ Connor-Davidson Resilience Scale & Satisfaction with Life Scale

Note. Positively associated outcomes are indicated with ↑. Negatively associated outcomes are indicated with ↓. No association are indicated with ≠.

Historical Loss Scale

The Historical Loss Scale (HLS) was the most widely utilized scale with 13 different studies (including the original developers' article) measuring historical trauma through frequency of thought of historical losses (Anastario, FourStar, & Rink, 2013; Armenta, Whitbeck, & Habecker, 2016; Bernards et al., 2019; Brissette et al., 2020; Clark & Winterowd, 2012; Ehlers et al., 2013; Goodkind, LaNoue, Lee, Freeland, & Freund; 2012; Guenzel & Struwe, 2020; Pokhrel & Herzog, 2014; Soto, Baezconde-Garbanati, Schwartz, & Unger, 2015; Spence, Wells, George, & Graham, 2014; Walls, Whitbeck, & Armenta, 2016; Whitbeck, Adams, Hoyt, & Chen, 2004; Wiechelt et al., 2012). The unidimensional scale was originally developed for a Native American population in the upper Midwest U.S. and two Canadian reserves in Ontario. It consists of one factor that measures perceived historical loss through 12 items. The 12 items include 1) loss of land, 2) loss of language, 3) loss of traditional spiritual ways, 4) loss of family ties because of boarding schools, 5) loss of families from the reservation to government relocation, 6) loss of self-respect from poor treatment by government officials, 7) loss of trust in whites from broken treaties, 8) loss of culture, 9) losses from the effects of alcoholism, 10) loss of respect from our children and grandchildren for our Elders, 11) loss of people through early death, and 12) loss of respect by our children for traditional ways. Response options include six categories on frequency of thoughts: never, yearly or special times, monthly, weekly, daily, or several times a day. To score, Whitbeck and colleagues (2004) recommended reverse scoring, summing and averaging to reach a composite score.

Most of the studies that utilized HLS were conducted with Native American populations in the U.S. and the following tribes were represented: Assiniboine, Sioux, Ojibwe, Odawa, Bodewadmi, Cherokee, Kiowa, Dine'/Navajo, Apache, Comanche, and Lumbee. However, First Nations populations were represented in two studies (Spence, Wells, George, & Graham, 2014; Walls, Whitbeck, & Armenta, 2016) and one study included a sample of Native Hawaiian community college students (Pokhrel & Herzog, 2014).

Various outcomes were reported in association with HLS, including substance use, mental health, eating behaviors, sex behaviors, ethnic identity, discrimination, etc. Five studies found positive associations between historical loss with mental health outcomes, which included anxiety, depression, anger, and avoidance (Armenta, Whitbeck, & Haebecker, 2016; Bernards et al., 2019; Brissette et al., 2020; Walls, Whitbeck, & Armenta, 2016; Whitbeck et al., 2004).

Substance use-related outcomes like substance abuse dependence, smoking experience, and marijuana use were also measured in five studies (Ehlers et al., 2013; Pokhrel & Herzog, 2014; Soto et al., 2015; Spence et al., 2014; Wiechelt et al., 2012). With exception to marijuana use, all substance use related outcomes were positively associated with HLS. In addition, increased ethnic identity and perceived ethnic discrimination was positively associated HLS (Pokhrel & Herzog, 2014; Soto et al., 2015; Tucker et al., 2016).

Adolescent Historical Loss Scale

HLS was adapted to fit the experiences of a North American Indigenous adolescent population, including adolescents living near or on seven Native American/First Nations Canada reservations (Whitbeck, Walls, & Hartshorn, 2014). The Adolescent Historical Loss scale included all items of HLS except loss of respect from our children and grandchildren for our Elders and loss of respect by our children for traditional ways. Response options and scoring suggestions remained the same. The scale was psychometrically tested in two studies, once by the Whitbeck, Walls, Johnson, Morrisseau, & McDougall (2009) to determine its uniqueness from depression through factor analysis and again by Armenta, Whitbeck, and Habecker (2016) who utilized longitudinal data to determine AHLS's psychometric properties over time. AHLS was found to be positively associated with ethnic identity, desire to socialize with other AI, perceptions of discrimination, rumination, adult financial strain, adolescent depressive symptoms, youth discrimination, youth and family stressful life events. It was negatively associated with warmth and support and not associated with suicidal ideation.

Historical Consciousness Scale

One study used the Historical Consciousness Scale to measure awareness of the past (Jervis et al., 2006). In essence, historical conciousness refers to the awareness of the past and, like historical trauma, how it transcends generations (Jervis et al., 2006). While the focus of historical consciousness is not primarily on transcending trauma, the items in this scale measure the collective memory of historical traumatic events. The scale include four items with the intent of measuring historical consciousness denoting one's awareness of the past. The items and response options were as follows: 1) "How much do you think about [a list of tribally specific significant historical] events like these?" (not at all, some, a lot); 2) "How familiar are you with tribal history, say, for the past 150 years or so?" (Not at all, somewhat, very); 3) "How big an impact has tribal history had on your community?" (None, some, a lot); and 4) "How big a

problem in your community is ‘a lack of knowledge about tribal history, tradition, and language?’” (Not a problem, there are some problems, there are a lot of problems). Jervis et al. (2006) sampled from Native Americans in the Southwest and Northern Plains in the U.S. (n=3,084).

Historical Loss Associated Symptoms Scale

HLASS was developed to accompany HLS (Whitbeck et al., 2004). HLASS measures emotional responses by asking respondents to rate how they feel when thinking of losses. The scale includes two factors: anxiety/depression and anger/avoidance and consists of a total of 12 items. The items in factor one are anxiety/depression include: 1) depression, 2) anxiety, 3) loss of concentration, 4) isolated, and 5) loss of sleep. The remaining seven items are a part of the anger/avoidance factor and include: 6) anger, 7) uncomfortable around white people, 8) shame when thinking of losses, 9) rage, 10) fearful or distrust the intention of white people, 11) feel like it is happening again, and 12) feel like avoiding places or people that remind you of these losses. Response categories include frequency of emotional responses: always, often, sometimes, seldom, or never.

All studies that utilized HLASS were conducted with a Native American or First Nations sample, representing the following tribes: Assiniboine, Sioux, Anishinaabe, Cherokee, Kiowa, Dine’/Navajo, Apache, Comanche, and Lumbee (Anastario, FourStar, & Rink, 2013; Brissette et al., 2020; Brockie et al., 2015; Clark & Winterowd, 2012; Ehlers et al., 2013; Goodkind, LaNoue, Lee, Freeland, & Freund, 2012; Guenzel & Struwe, 2020; Whitbeck, Adams, Hoyt, & Chen, 2004; Wiechelt et al., 2012;). All studies administered HLASS to an adult sample except Brockie et al. (2015) who included 15–24-year-olds. Sample sizes ranged from 10 to 306 participants.

Various outcomes were associated with HLSS. Three studies investigated the association between HLSS and drug use (Brockie et al., 2015; Ehlers et al., 2013; Wiechelt et al., 2012), and the majority found positive and significant associations. There was no significant positive or negative association with marijuana use and HLSS (Wiechelt et al., 2012). Having multiple concurrent sexual partners, binge eating behaviors, maladaptive coping strategies, depression symptoms, PTSD symptoms, and assaultive trauma had positive associations with HLSS (Anastario, FourStar, & Rink, 2013; Brissette et al., 2020; Brockie et al., 2015; Clark & Winterowd, 2012; Ehlers et al., 2013). Psychological resilience and family cohesion were found

to be negatively associated with HLSS (Brissette et al., 2020; Wiechelt et al., 2012).

Historical Oppression Scale

Two studies reported the use of the Historical Oppression Scale (Burnette, Renner, & Figley, 2019; McKiniley et al., 2020). The scale was developed to measure internalized and externalized oppression because of historical trauma. Internalized oppression refers to the adoption of beliefs and behaviors of the oppressor, as theorized by Freire (2000), which can lead to negative health outcomes. Externalized oppression is the tendency for those who have been oppressed to oppress others. McKiniley et al. (2020) developed the Historical Oppression Scale from a mixed-methods study. The qualitative portion investigated risks and protective factors related to violence and health disparities, and the quantitative portion piloted the scale and explored its relationships to emergent risk, protective and promotive factors, as well as key health and behavioral health outcomes. The scale is unidimensional, measuring historical oppression with 10 different items, including: 1) have taken frustrations out on each other, 2) kept each other down, 3) been jealous of other's success, 4) have allowed outsiders to take advantage of us, 5) used alcohol and drugs too much, 6**)** been sad or depressed, 7) not received adequate education or resources, 8) had lower standards or expectations for each other, 9) treated each other unfairly, and 10) not spoken up when we experienced injustice. Participants were asked to rate on a Likert scale how much members of their community experienced each item with the following response options: "not at all", "a little", "a moderate amount", "a lot", or. "a great deal". Both studies employed this scale among Native American samples in the U.S. (n=127; Burnette, Renner, & Figley, 2019; McKiniley et al., 2020).

Methodological quality according to the COSMIN checklist

Ratings on study design and psychometric assessment of the selected scales according to the COSMIN Checklist are summarized in Table 2.4. Overall, all articles demonstrated quality methodological choices in designing their respective studies. McKiniley and colleagues (2020) scored the lowest as it was unclear what the response options were and scoring values were not reported. Regarding psychometric properties, all studies demonstrated good structural validity according to the COSMIN checklist, with summed scores ranging from nine to twelve (see Table 4). Although not a requirement of the COSMIN checklist, goodness of fit statistics were recorded to demonstrate the structural validity of each scale. Whitbeck, Adams, Hoyt, & Chen (2004) did not report on RMSEA or CFI, but instead reported on Chi-Square. While they were successful in suggesting HLS as a unidimensional scale with 12-items, reporting of RMSEA or CFI may not have been the common standard for reporting goodness of fit statistics. Table 2.5 further illustrates the scores of the COSMIN checklist regarding reliability. Two studies did not conduct analyses to determine internal consistency with Cronbach's alpha of McDonald's Omega. In general, majority of the studies possessed acceptable reliability (α=.89-.97).

Table 2.4 Structural validity and other forms of validity of historical trauma scales using the COSMIN Checklist

		COSMIN					Psychometric validity	Other validity tested
Scale	Dimensionality	Classical Test Theory: performed confirmatory factor analysis	Clear analysis on how the analysis was performed	Appropriate number of participants	Clear description of how missing items were handled	Total COSMIN score	GOF Value	Type of validity
Historical Loss Scale and Adolescent Historical Loss Scale								
Whitbeck, Adams, Hoyt, & Chen (2004)	Unidimensional	3	3	3	0	9	$\chi 2(df)=447.54(3)$ over null	predictive
Adolescent Historical Loss Scale								
Armenta, Whitbeck, & Habecker (2016)	Three-factor F1 cultural loss F2 loss of people F3 cultural mistreatment	3	3	3	3	12	Longitudinal: RMSEA= .035	predictive

		COSMIN					Psychometric validity	Other validity tested
Scale	Dimensionality	Classical Test Theory: performed confirmatory factor analysis	Clear analysis on how the analysis was performed	Appropriate number of participants	Clear description of how missing items were handled	Total COSMIN score	GOF Value	Type of validity
Whitbeck, Walls, Johnson, Morrisseau, & McDougall (2009)	Two-factor F1 governmental and institutional policies and practices F2 personal and cutlural losses	3	3	3	3	12	CESD and Adolescent Historical Loss (AHL) as a single construct: CFI=.58, RMSEA=.43 CESD and AHL as separate constructs: CFI=.98, RMSEA=.099	face
Historical Consciousness Scale								
Jervis et al. (2006)	Unidimensional	3	3	3	3	12	RMSEA=.05; CFI=.90	n/a
Historical Loss Associated Symptoms Scale								

		COSMIN					Psychometric validity	Other validity tested
Scale	Dimensionality	Classical Test Theory: performed confirmatory factor analysis	Clear analysis on how the analysis was performed	Appropriate number of participants	Clear description of how missing items were handled	Total COSMIN score	GOF Value	Type of validity
Whitbeck, Adams, Hoyt, & Chen (2004)	Two-factor F1 anxiety/depression F2 anger/avoidance	3	3	3	0	9	$\chi 2(df)=447.54(3)$ over null	predictive
Historical Oppression Scale								
McKiniley et al. (2020)	Unidimensional	3	3	3	3	12	RMSEA=.088; CFI=.98; TLI=.97;	convergent and discriminant

Note. GOF = Goodness of Fit

Table 2.5 Reliability among historical trauma scales according to the COSMIN checklist

	COSMIN					Psychometric reliability
Scale	Checked whether a scale or a subscale is unidimensional	Appropriate number of participants	Clear description of how missing items were handled	Calculated Cronbach's alpha or Omega for each unidimensional scale or subscale	COSMIN reliability score	Reliability value (α or ω)
Historical Loss Scale and Adolescent Historical Loss Scale						
Whitbeck, Adams, Hoyt, & Chen (2004)	3	3	3	3	12	α = .92
Adolescent Historical Loss Scale						
Armenta, Whitbeck, & Habecker (2016)	3	3	3	0	9	N/A

	COSMIN					Psychometric reliability
Scale	Checked whether a scale or a subscale is unidimensional	Appropriate number of participants	Clear description of how missing items were handled	Calculated Cronbach's alpha or Omega for each unidimensional scale or subscale	COSMIN reliability score	Reliability value (α or ω)
Whitbeck, Walls, Johnson, Morrisseau, & McDougall (2009)	3	3	3	3	12	α = .91
Historical Consciousness Scale						
Jervis et al. (2006)	3	3	3	0	9	N/A
Historical Loss Associated Symptoms Scale						
Whitbeck, Adams, Hoyt, & Chen (2004)	3	3	3	3	12	α = .89
Historical Oppression Scale						

	COSMIN					Psychometric reliability	
Scale	Checked whether a scale or a subscale is unidimensional	Appropriate number of participants	Clear description of how missing items were handled	Calculated Cronbach's alpha or Omega for each unidimensional scale or subscale	COSMIN reliability score	Reliability value (α or ω)	
McKiniley et al. (2020)	3	3	3	3	12	α = .97	Y

Cultural and/or community rigor according to the Indigenous Quality Appraisal Tool

All six articles were assessed on how well they included Indigenous communities and privileged Indigenous epistemologies in their study with IQAT. Scores ranged from 5 to 23 (see Table 2.6). Most of the articles were rated high for taking a strengths-based approach; acknowledging and moving beyond practices that have harmed Indigenous communities in the past; engaging the community; having Indigenous research leadership; and the respective Indigenous community having control over the collection and management of data. For transparency, the standard in IQAT assessing Indigenous paradigm use was scored with full point for each article as all articles based their studies on the theories and conceptualizations of Indigenous historical trauma.

McKiniley and colleagues (2020) scored the lowest in their reporting on the Historical Oppression Scale as many standards were not met at all or were unclear to the rater. Beside this article, all others had Indigenous leadership on their research teams. While McKiniley and colleagues scored poorly, they were the only article to partially report a plan to translate findings into policy and/or practice.

The study that scored the highest (Jervis et al., 2016) was the only one to report an agreement to protect Indigenous participants' ownership of intellectual and cultural property created through the research. Much of the information to rate Jervis and colleague's report of the Historical Consciousness Scale was published in a separate article (Beals, Manson, Mitchell, Spicer, & the AI-SUPERPFP Team). In the article, they detailed the community's requirement to be acknowledged for their work through authorship and acknowledgements. The study with the next highest points was by Whitbeck, Walls, Johnson, Morrisseau, & McDougall (2009) reported on the Adolescent Historical Losses Scale. The research team described that were invited by tribal reservations, prior to submitting any application for funding, to work with them. During that time, they established a work agreement, and all research staff was approved by tribal advisory boards and the majority of the staff were tribal members.

Table 2.6 Indigenous cultural/community rigor of historical trauma scales according to the Indigenous Quality Appraisal Tool

Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	IQAT score
Historical Loss Scale and Adolescent Historical Loss Scale															
Whitbeck et al., (2004)	0	2	2	2	2	0	0	2	2	2	0	0	2	2	18
Adolescent Historical Loss Scale															
Armenta et al., (2016)	0	2	2	2	2	0	0	2	2	2	0	0	0	0	12
Whitbeck et al., (2009)	2	2	2	2	2	0	0	2	2	2	0	0	2	2	20
Historical Consciousness Scale															
Jervis et al. (2006)	1	2	2	2	2	0	2	2	2	2	0	2	2	2	23
Historical Loss Associated Symptoms Scale															
Whitbeck et al., (2004)	0	2	2	2	2	0	0	2	2	2	0	0	2	2	18
Historical Oppression Scale															
McKiniley et al. (2020)	0	0	0	0	0	0	0	1	1	2	1	0	0	0	5

Note. 1-14 in the header row are Indigenous Quality Appraisal Tool standards found in Table 2. Ratings were given the following scores 0=no or 0, 1=partial, 2=2.

Discussion

The purpose of this study was to summarize existing scales that assess historical trauma among Indigenous peoples, and to evaluate their validity and reliability through psychometric properties and cultural/community rigor. A total of five unique scales were identified with HLS being the most widely used. Articles in this review mainly sampled from a variety of Native American tribes across the continental United States and First Nations peoples in Canada. HLS was utilized in a Native Hawaiian population, but since psychometric properties were not reported, the study was not included in the synthesis (Pokhrel & Herzog, 2014). Overall, the majority of the studies demonstrated acceptable structural validity and reliability and received high ratings of cultural/community rigor. In addition, a plethora of health and social outcomes were associated with the various scales. Many involved health behaviors like substance use/abuse, breast feeding, and eating behaviors and mental/emotional health outcomes like depression, suicide ideation, and psychological distress. Social outcomes like ethnic discrimination, adverse childhood experiences, sexual abuse, and educational outcomes were also included. In essence, poor outcomes are clearly associated with historical trauma across multiple scales, demonstrating evidence of historical trauma as a determinant of Indigenous health.

While the studies found in this review demonstrated important findings regarding Indigenous health and historical trauma, only six studies reported psychometric properties and other studies (not reported in the current study) were excluded. HLS is the most widely utilized historical trauma scale, but its items and dimensionality has only been tested in a confirmatory factor analyses three times. One factor to consider is that a scale developed in a particular population must be re-adapted so that it can be used in a different population (Elf, Nordinm Wijk, McKee, 2017). The two research teams (Armenta, Whitbeck, & Habecker, 2016; Whitbeck, Walls, Johnson, Morrisseau, & McDougall, 2009) adapting HLS for adolescents were able to accomplish this task, however, 13 other studies did not consider the validity and reliability of the scale among their respective populations. While Indigenous peoples are often aggregated together, geographic, and cultural differences still exist, which strengthens the argument of specificity when measuring historical trauma among various sub-groups.

The current study demonstrates that scholars have interpreted measuring historical trauma in more than one way. While HLS is concerned with the frequency of thoughts about historical

losses, the Historical Consciousness and the Historical Oppression Scales possess different definitions of the construct. For example, historical consciousness is a measure of awareness of the past and aimed to document the attitudes toward significant historical events among contemporary Native Americans (Jervis et al., 2006). In the scale, Jervis and colleagues measured, not only frequency of thought about historical events, but also familiarity with tribal history, community impact of tribal history on community, and lack of community knowledge. As mentioned by Gone and colleagues (2019) the theoretical underpinnings of historical trauma could be refined, and perhaps, a standard measure of the construct that is easily adaptable to other Indigenous populations should be developed and tested. However, there should still be space for the different measures of historical trauma as others could provide us insightful information on ways to heal and demand justice for Indigenous peoples. For example, the Historical Oppression Scale, in brief, measures how individuals perceive internal and external oppression. Solutions created based off findings from such a scale may look completely different from the Historical Consciousness Scale that centers community and tribal history.

Overall, all scales found in this review emphasized individual perceptions and thoughts. It is not surprising as individual health behaviors are often targeted to decrease disparities. However, regardless of an individual's perception and thoughts, historical trauma persists in external, environmental, and political factors that inhibit Indigenous health and social equity. Perhaps scales that measure historical trauma on the organizational, community, and political levels could serve as strong evidence to demonstrate change and its urgency. For example, Adkins-Jackson, Legha, & Jones (2021) have suggested measuring institutional racism in academic health centers on three levels: the individual (similar to the scales found in the current study, where individuals determine racially oppressive encounters), intra-organizational (institution wide implicit bias tests of employees and staff that uphold racist policies and practices), and extra-organizational (assessing and measuring the amount of departments and agencies endorsing policies that are detrimental to racial groups). Quantitatively measuring how historical trauma manifests at three levels could give policymakers and decision-makers an accurate depiction of racism and where it can be addressed. The similar three-level measurement approach can be done with historical trauma. The findings in this review offer psychometrically sound individual-level scales for historical trauma among Indigenous people. Future research might investigate these other levels to build concrete data around historical trauma on population

level.

As evident in this review, historical trauma is clearly associated with contemporary health outcomes of Indigenous peoples. Overall, the findings from this study demonstrate the importance of unpacking historical trauma among Indigenous populations to heal unresolved trauma and improve mental health, behaviors, and social conditions. Indigenous populations are suffering from cumulative traumatic events that have happened to their nations. Studies in this review have taken steps to accurately measure the severity of historical and intergenerational trauma.

This review is not without limitations. First, the search strategy and inclusion/exclusion criteria were set by the research team, which may have excluded articles in the initial search and study selection. Second, interpretations made based on the various appraisal tools in this review may be biased to the researchers' understanding. There is no standard of reporting scale validation and Indigenous community involvement in peer-reviewed articles, and authors are subject to word limitations. Therefore, the findings were limited to author's interpretations and information stated in each article.

Conclusion

Historical trauma is a determinant of Indigenous health that urgently needs to be addressed. This study identified and summarized the scales that are being used to measure historical trauma. Indigenous communities who wish to replicate similar scales with their own people can use the findings of this study to inform the development of their scale. Valid and reliable scales of historical trauma have the potential to help public health professionals critique their practices and strategies to address Indigenous health. On a policy level, concrete data is needed to communicate to decision makers the urgency for change. However, latent constructs, like historical trauma, are difficult to measure and/or are not being employed in a large, representative sample to make meaningful inferences from the data. This review identified various scales in which we can understand how collective experiences of historical and/or intergenerational trauma inflicted by colonization impact the health and well-being of Indigenous populations. Therefore, if validated and reliable, data collected from the scales in this review could accurately convey to decision makers the specific needs of Indigenous communities to heal, gain health equity, and prevent further collective trauma.

CHAPTER 3 I KA WA MAMUA, KA WA MAHOPE—HISTORICAL AND INTERGENERATIONAL TRAUMA EXPERIENCES AMONG WĀHINE: A QUALITATIVE STUDY

Abstract

Historical trauma is a determinant of health among all Hawaiians, but Wāhine experience historically trauma uniquely (Kanuha, n.d.). A phenomenological qualitative study was conducted to primarily understand historical trauma, trauma response, and the transmission and modes of intergenerational trauma among contemporary Wāhine as described in the Historical Trauma Conceptual Model. With partnership and approval of the Waimānalo Pono Research Hui, interviews were conducted with 13 Wāhine in Hawai‘i in Fall 2020 and Spring 2021. ‘Eha (loosely translated as hurt/suffering/to inflict pain/cause hurt or suffering) at the structural, institutional, interpersonal, and internal levels, and healing emerged as prominent themes from the data. Findings from this study communicate the urgency for change to heal Wāhine with radical aloha and support them in reimagination of a world that is inclusive of their needs.

Introduction

Wāhine (Native Hawaiian women) come from a deep, rich history of honor and reverence for their equal position to Kāne (men) in pre-western contact Hawai‘i. Western settler colonialism introduced new value systems, ways of life, economic pursuits, and laws which disenfranchised all Hawaiians. While all Hawaiians, regardless of gender, suffered in numerous ways at the hands of foreign disease, Christianity, mass sugar plantation systems, and militarism, Wāhine’s experiences are unique (Kanuha, n.d.). As described in chapter 1, Wāhine were made inferior to men, criminalized for their sexualities, and sex trafficked for foreign settlers and visitors (Merry, 2000). The plethora of traumatic events faced by Hawaiians and left unresolved are associated with consistent poorer health and socioeconomic outcomes for Wāhine when compared to the general population in Hawai‘i as well as Kāne (Office of Hawaiian Affairs, 2018). Because Native women often face the synergistic impacts of sexism and racism, they may be more susceptible to modes of intergenerational trauma like violence. In fact, the University of Hawai‘i found in their sexual harassment and gender-based violence survey that female undergraduates and Hawaiian students are among groups on campus who experience higher rates

of sexual harassment, stalking, dating and domestic violence, and non-consensual contact compared to other genders, races and ethnicities on campus (Office of Hawaiian Affairs, 2018; University of Hawai‘i, 2017).

As previously described, historical trauma is unresolved trauma from collective experiences, passed down from ancestral generations (Brave Heart and DeBruyn, 1998; Evans-Campbell 2008; Whitbeck et al., 2004). Walters et al. (2011, p. 182) described historical trauma "as an etiological factor; as a particular type of trauma response and syndrome; as a pathway or mechanism to transfer trauma across generations; and as a historical trauma-related stressor interacting with other proximal stressors". More recent studies have shown biological pathways for historical trauma through modification of the epigenome, which affect health (Conching, 2019; Walters et al., 2011). For example, stressful environments can lead to malnourishment of mothers during key gestational periods, which can impact children who may develop cardiovascular disease in adulthood (Kuzawa & Sweet, 2009; Walters et al., 2011). Wāhine and Indigenous people all over the world continue to embody historical trauma, physically, emotionally, spiritually, and mentally through historical, cultural disruption. However, this disruption is not only historical, as traumatic, violent, racist, and sexist policies and institutions continue to exist in contemporary times, which disempower Wāhine.

Disciplines outside of public health have offered a gendered insight on historical and structural violence. Trask (1984) explains that Wāhine face "double colonization" as they must fight for their own liberation as women as they fight for the liberation of their people. Indigenous feminist theorists understand that generational trauma and structural violence experienced by Indigenous women are in part due to oppressive systems, like patriarchy, that have subjugated Wāhine as being lesser than Kāne, discouraging values of gender duality and equality that existed in traditional Hawaiian society.

While previous literature has explored the historical and intergenerational experiences of Indigenous people, little is known in public health about how Wāhine conceptualize and experience historical and intergenerational trauma. Therefore, an understanding of Wāhine's experiences in historical and intergenerational trauma can be important in dismantling unresolved trauma and ongoing structural violence. This phenomenological qualitative study aimed to understand the experiences of historical and intergenerational trauma among Wāhine utilizing Indigenous Feminist Theory and the Historical Trauma Conceptual Model. Indigenous

Feminist Theory interconnects the liberation of Indigenous women with the liberation of their people, nations, and lands (Barker, 2017). The theory works to advocate for and decolonize women of color from elements that damage their lives, regardless of origin (Hall, 2009). One way Indigenous feminist theorists and advocates identify to decolonize women of color is to infiltrate their the mainstream narrative to counter the narratives told by white settlers and men (Barker, 2015; Barker, 2017). The Historical Trauma Conceptual Model (Sotero, 2006) illustrates the transfer of trauma from historical events to contemporary populations. The model was chosen to inform the measures in this study as it encompasses three theoretical frameworks: the psychosocial theory linking physical and psychological stress to social environments; political/economic theory which highlights the inequitable impacts of political, economical, and structural determinants of health; and the social/ecological systems theory, which recognizes the dynamics and interdependencies of the past/present, proximal/distal, and life course factors impacting disease. These theories allow for a comprehensive, multilayered means of illustrating how historical trauma and intergenerational trauma impact Wāhine.

Application to conceptual model

This study aimed to primarily understand historical trauma, trauma response, and the transmission and modes of intergenerational trauma among contemporary Wāhine as described in the Adapted Historical Trauma Conceptual Model in Figure 1. Qualitative data from contemporary Wāhine participants were collected regarding their experiences of historical and/or intergenerational trauma and trauma responses.

Methods

Study Design

A qualitative study design with a phenomenological approach was employed to allow for a deep understanding of Wāhine's perceptions, perspectives, and understandings of the historical and intergenerational trauma phenomenon (Gallagher, 2012). Phenomenology concerns the first-person point of view of lived experience and how participants make meaning of that experience, which results in a rich description of the essence of a phenomenon (Mayan, 2009). The interview guide and data analysis were shaped by Indigenous Feminist Theory and the Historical Trauma Conceptual Model.

Positionality

The lead researcher, Samantha Keaulana-Scott, situated herself as a Kānaka Maoli and a

Wāhine whose self, family, and nation are still impacted by the legacies of colonialism and systems that uphold the oppression of Kānaka Maoli and Wāhine. This research was personal to the researcher and of interest to untangle hihia (issues) that her kumu, Aunty Lynette Paglinawan, described as a means to achieving optimal Hawaiian health.

Community-based engaged approach

This study was built upon an established, long-term relationship between the lead researcher and the Waimānalo Pono Research Hui (WPRH), an academic and community partnership between residents of Waimānalo and academic researchers (Chung-Do et al., 2019; Keaulana et al., 2019). In this study, WPRH served as the community ethics and advisory board because they possess a set of pono (just/righteous) research principles, which provides a code of conduct for researchers who wish to engage and deploy projects in the Waimānalo community (Chung-Do et al., 2019; Keaulana et al., 2019). Some participants were members of WPRH and WPRH helped to recruit others in and outside of WPRH. WPRH is situated in a pre-dominantly Hawaiian community with experience in various academic and community research projects, and community building and mālama ʻāina initiatives. They bear the infrastructure through their pono research principles that allowed for the Indigenous critical review and approval of this sensitive study. Some of the principles include protocols on data ownership, researcher accountability, and dissemination.

Aside from the lead researcher, the research team included Ilima Ho-Lastimosa, Malia Kaʻio, LeShay Keliiholokai, and a practicum student, Riko Lee. Aside from Riko, the entire research team has a social work and/or counseling background and are Native Hawaiian Wāhine. With their degrees and lived experiences, the team was able to inform measures, conduct interviews, and help with data analysis.

ʻIlima Ho-Lastimosa is a Wahine, social worker, community activist, healer, mover & shaker, a Waimānalo community member, and a co-founder of WPRH. It is through long-term pilina (relationship) with ʻIlima that this study is possible, as many of the study participants were gained through relationships and trust in her. She has led a plethora of community-based and culturally grounded health and leadership programs, including Wāhine wellness programs. Her roles included study approval and recruitment.

Malia Kaʻio is Wahine, program coordinator at the University of Hawaiʻi Women's Center, and has extensive experience in working with Wāhine who have experienced

homelessness, substance abuse, domestic violence, and chronic disease. With her counseling experience and insider lens as a Wāhine with lived experience, her roles included shaping interview questions, building rapport, co-developing and administering safety plans during interviews, and co-conducting interviews. The lead researcher and Malia maintained over a nine-year relationship through previous projects in Waimānalo.

LeShay Keliiholokai is a Wahine, a youth activity specialist for Lili‘uokalani Trust, a Waimānalo community member, an art therapist, and has considerable experience in youth and women’s community programs. LeShay was asked to be a part of the study for her deep understanding of historical and intergenerational trauma and their systematic and interpersonal implications on Wāhine. Her roles included shaping interview questions, co-conducting interviews, and data analysis.

The practicum student, Riko Lee, is a haumāna (student) of the University of Hawai‘i at Mānoa Office of Public Health Studies Native Hawaiian and Indigenous Health specialization. As a Korean woman whose family was displaced due to war, her interest in historical and intergenerational trauma is personal. She approached the project with utmost respect and cultural humility and was recommended to the lead researcher by Dr. Mapuana Antonio, a trusted mentor and dissertation committee member. To meet Riko’s practicum objectives, permission was successfully received from two participants for her to transcribe and analyze their transcripts. She did not have access to other participants’ transcripts.

Sample

This study implemented key informant interviews to gain an in-depth understanding of Wāhine historical and intergenerational trauma. Purposive sampling was employed to select participants who had previously established relationships and trust with the research team to ensure a safe space to discuss a vulnerable topic like trauma. Various recruitment strategies were employed including contact through email, word-of-mouth strategies, and face-to-face interaction. Interviews were conducted between 2020-2021. To be eligible for the study, participants needed to be 18 years or older, of Hawaiian descent, and identify as Wāhine.

Data collection

All potential participants were sent interview questions, the consent form, and a de-escalation form prior to scheduling an interview to understand the scope of the study and risk mitigation. Since the discussion of trauma was a sensitive topic, the lead and secondary

researchers, Malia Kaʻio and LeShay Keliʻiholokai, functioned from the trauma-informed care framework, which understands how symptoms of trauma impact health outcomes and prevents re-traumatization in treatment and delivery of care (Bruce et al., 2018). During participant screening, an adapted version of the Crisis Prevention Institute's De-Escalation Preference Form (Crisis Prevention Institute, n.d.) was employed to develop an individual plan of action for the participant. The De-Escalation Preference Form from the Crisis Prevention Institute was chosen as the organization provides tools for providers and professionals to handle and prevent agitated behavior, including skills in understanding nonverbal communication, which the research team thought was important for a topic such as trauma. The form was kept on hand during the interview in case a crisis was to occur. Following the interview, all participants received a follow-up phone calls the day after the interview for a mental health check and a mahalo (thank you).

The thirteen semi-structured, key-informant interviews were conducted by the researcher and secondary researchers, Malia Kaʻio and LeShay Keliiholokai in Fall 2020 and Spring 2021. There were two researchers present at each interview. Since phenomenology is concerned with gaining a deeper understanding of everyday experiences of a phenomenon, the purpose of the interview and the terms historical and intergenerational trauma were explained to participants prior to the first question. To gauge understanding of the terms, participants were asked to share their definitions of the historical and intergenerational trauma and then asked to use their definitions in the interview moving forward. All participants consented and, prior to the interview and at the end of the interview, were asked if they wished to remain confidential or if they were interested in being recognized for their stories and contribution. They were also informed that they could change their mind at any time during or after the interview. However, no one wanted to be identified. The interviews ranged in duration from 1 hour and 30 minutes to 2 hours and took place on Zoom. All participants consented to be audio recorded, which allowed for transcription of interviews verbatim. To compensate them for their time, participants received a $50 makana (gift).

Measures

Interview questions were primarily formulated based on existing literature on Indigenous Feminist Theory, the Historical Trauma Conceptual Model, and findings from Study 1. Four domains of interest were presented to the research team: moʻokūauhau (genealogy), perceived

historical loss, trauma response, and intergenerational trauma and experiences. After consultation provided by the research team, a semi-structured interview guide was finalized. Table 3.1 specifies the domains of interest and related interview questions.

Table 3.1 Interview questions their related domains of interest

Domain	Interview Questions
Moʻokūauhau	After the interviewers shared their moʻokūauhau, participants were asked: • Do you mind sharing a bit about yourself and your moʻokūauhau?
Perceived historical loss	• Can you tell me about a historical event in Hawaiʻi that has impacted an older woman in your family?
Trauma response	• How do you think that historical event has impacted you or a woman in your family?
Intergenerational trauma transmission and experiences	• Are there any historical policies or processes that affect your family today? • Can you tell me about a time you were treated differently because you are a Hawaiian woman? • What are some of the roles the women in your family take on? • What are some of the roles the men in your family take on? • Do you think the trauma of the past influenced/changed these roles? • Can you tell me about a time you were treated unfairly by a man in your family, personal relationships, or outside of your family? • Can you tell me about a time you felt excluded from a decision that really impacted you as a woman?

- Who do you think is responsible for the trauma or wrongdoings that have happened to your ʻohana?
- What do you hope to see with future generations to end the cycle of intergenerational trauma?

Moʻokūauhau domain

For the moʻokūauhau domain, both participants and the research team shared a story of where they are from or who their parents are. Moʻokūauhau or geneaology is significant in understanding how the past guides the future. Sharing of moʻokūauhau helped the research team untangle historical trauma and unresolved trauma impacting contemporary generations. The significance of moʻokūauhau is evident in Mary Kawena Pukuʻi's ʻŌlelo Noʻeau Hawaiian Proverbs & Poetical Sayings (1983), "i ka wa mamua, ka wa mahope", which translates to "the future is in the past." Beginning with moʻokūauhau was a salient question that helped prime participants them for subsequent sensitive questions of their experiences of land and cultural loss (Dillman, 2014). In addition, moʻokūauhau built further pilina (relationship/connection) between the participants and the researchers (Odom, Jackson, Derauf, Inada, & Aoki, 2019).

Perceived historical loss domain

Historical trauma has been measured with perceived historical loss (Whitbeck et al., 2004). Physical and psychological violence, displacement, and cultural dispossession are historical losses that contribute to the loss of land, culture, etc., which impact Indigenous people's health (Sotero, 2006). Questions were formulated to understand how salient historical losses were perceived among contemporary Wāhine. To probe, yet avoid biasing responses, the research team briefly shared an example of Native Americans and First Nations peoples' experiences with boarding schools.

Trauma response domain

The question formulated for the trauma response domain was concerned with how historical trauma impacted them or the Wāhine in their families. In this domain, we probed with social and psychological responses described in the Historical Trauma Conceptual Model (e.g. "has anyone ever experienced substance abuse, domestic violence, depression, etc.").

Intergenerational trauma transmission and experience domain

Questions in this domain sought to understand how Wāhine see historical and intergenerational trauma passed down to them or other Wāhine they know. Participants were asked gender specific questions related to trauma transmission.

Data analysis

Transcriptions were analyzed using thematic analysis, an iterative process which searches for "themes that emerge as being important to the description of the phenomenon" and requires researchers to be reflective and reflexive (Fereday & Muir-Cochrane, 2004, p. 82; Mayan, 2009; Swain, 2018). Therefore, the transcripts were divided evenly among the lead researcher and secondary researcher, LeShay Keli‘iholokai, and were initially coded individually. As mentioned, Riko Lee also coded and helped with thematic analysis of two transcripts. A priori codes were created based on the domains utilized to develop the interview questions and were pre-determined by the research team before initial coding. During initial coding, researchers also created a posteriori codes based on emerging codes from the data. Next, the lead researcher and LeShay met to create a codebook and the remaining transcripts were coded together. NVivo was utilized for coding in this phase to assist in finalizing themes.

Results

Participant Characteristics

A total of 13 participants were recruited and interviewed for this study. All participants were women of Native Hawaiian descent. Ages ranged from 18-70 years old and most of the interviewees had children. All the participants resided in on O‘ahu, Maui, or Hawai‘i Island. A summary of the participant characteristics is provided in Table 3.2.

Table 3.2 Characteristics of key informant interview participants

Characteristics	Values n (%)
Ages	
Kūpuna (60+)	3 (23%)
Mākua (25-59)	7 (54%)
‘Ōpio (18-25)	3 (23%)
Marital status	
Single	5 (38%)

In a relationship or married	3 (23%)
Divorced, separated, or widowed	5 (38%)
Geographical location	
Rural	9 (69%)
Urban	4 (31%)
Have children	11 (85%)

Summary of Themes

The research team identified violence as a salient theme throughout the transcription review. Participants conceptualized historical trauma with various stories of violence within systems, interpersonal relationships, and within themseles. The violence inherited and passed on acknowledges that individual behaviors were/are not at fault for intergenerational trauma transmission and that it exists because historical violence is perpetuated systemically and beyond individual control. If individuals are not given or kept from the tools and resources for healing, violence persists. Furthermore, after careful analysis of the data, participants' experiences demonstrated that historical trauma is not historical as violence committed on Hawaiians remain prevalent. Therefore, historical, and intergenerational trauma do not happen in a linear fashion as violence is compounded throughout the generations.

After consultation with a community cultural advisor, violence was translated as ʻeha for purposes of this study. ʻEha means hurt and suffering or to hurt and cause suffering. Naturally emerging from participantsʻ stories, violence or ʻeha was embodied on the individual level and inflicted at various levels of society. Although Indigenous Feminist Theories and the Historical Trauma Conceptual Model were utilized to inform this study, the research team decided that the data collected might be better described by levels of society in which participantsʻ experienced ʻeha. Camara Phyllis Jones's Levels of Racism theory (2000) and the Multilevel Racism and Native Hawaiian Health (2019) modeled after Levels of Racism were then used to inform the thematic analysis of this study. As a result, five major themes were identified: 1) structural ʻeha, 2) institutional ʻeha, 3) personally mediated ʻeha, 4) internalized ʻeha, and 5) ola (life/healing). The themes were modeled after The Levels of Racism theory as it describes how racism (in violent forms) manifests at various levels, similar to findings in this study as ʻeha was found to be experienced at different levels. All levels are interconnected as they interact and influence one

another. Each theme is described in greater detail below.

Theme 1: Structural ʻEha

Structural ʻeha depicts violence that happened historically and was/is reinforced culturally and social psychologically, producing, and perpetuating harm and inequality. It is ingrained in society and becomes a part of daily life. As a result, oftentimes it is less visible and maintains unequal power differentials that impact unequal structures (Lee, 2019). Just as intergenerational trauma is described in Sotero's Historical Trauma model (2006), participants shared how their kūpuna acquired ʻeha through colonialism and settlerism, which was then inherited by the participants and their family members. Structural ʻeha commonly brought up by participants were the overthrow of the Hawaiian Kingdom, the banning of Hawaiian culture and ʻōlelo Hawaiʻi, displacement and disconnection from land through various developments and policies, and the introduction of western worldviews and religion. Such events brought cultural and social implications among participants like disregard of Hawaiian culture and sacred lands, roles and expectations on gender, and stigmatization of Hawaiian people and discrimination in their interactions within systems.

Cultural disregard. Most participants expressed that the western presence in Hawaiʻi and overthrow of the Hawaiian Kingdom catapulted Hawaiians into becoming second class citizens in their own homelands. All participants felt like the overthrow was a result of westerners, including Americans, exerting their dominance over Hawai'i and Hawaiians. Overall, the overthrow left a lingering tone of Hawaiian cultural degradation and lack of Hawaiians' access to power. "*I think that America thought of [Hawaiʻi] as something to capitalize on, rather than us as a people. I don't think they even saw us as people... they didn't even allow Native Hawaiian people to vote for who would be in their government*."

Participants conveyed that the overthrow and extraction of Hawaiianness in Hawaiʻi (e.g., banning of ʻōlelo Hawaiʻi) were culprits of their disconnection to Hawaiian culture and the disregard of it by non-Hawaiians, Hawaiians themselves, tourists, locals, etc. Hawaiian culture became inaccessible to participants and/or their kūpuna. For example, the suppression of ʻōlelo Hawaiʻi impacted many participants and their family members. Many attributed their loss of cultural identity through the inability of their kūpuna and themselves to speak their native tongue because English language was prioritized over their own. They also highlighted that their own genealogies and stories that were passed down through ʻōlelo Hawaiʻi were lost, exacerbating

their disconnection to their culture and, in some cases, their families and communities.

This disconnection led to a general feeling that Hawaiians, their culture and their beliefs were disregarded. For example, a participant spoke about the disregard of kapu (sacredness) when she witnessed a non-Hawaiian take part in research on Hawaiian ʻiwi (bones), which did not sit well with her naʻau (guts, innards, gut feeling). She shared how research on ʻiwi was a common practice in that person's discipline and there weren't any laws to protect burials and bones at the time. She stated, "*you take something that's so sacred, and you… you just wish it up into just material… I felt like this is wrong, you know, this is really wrong...*"

Capitalism seemed to strongly impact participants, especially as they described power and Hawaiian identity among themselves, their families, and others in their community. Mana was once acquired spiritually and through collective exchanges with people and ʻāina, centered in kuleana (a deep responsibility). In contrast, participants highlighted that society now often mistakes mana as acquired through money and esteemed careers. Collective kuleana to others and ʻāina was absent in their stories when they shared about the expectations of them as individuals by their parents and grandparents to succeed. This, demonstrated the contention of collectivist culture of mana and the individualistic culture of mana influenced by capitalism. Participants spoke about how mana through individual gain became more important in society as the landscape, government, and culture of Hawaiʻi changed to mirror that of the west. However, the essence of participants' stories seemed as if these expectations and shift in mana were required for survival among Hawaiians.*"[T]hat's how you gon survive as one Hawaiian. If you succeed if you make money, money gives you power, power give you right to make, you know, different decisions and stuff and to control how people treat you…"* However, even with money and an esteemed career, some participants felt that the Kāne in their family were held in higher regard, suggesting a double standard for Wāhine. Some described their fathers constantly praising their male family members for attaining jobs and feeling disappointed that their pride did not extend to participants themselves. Moreover, Wāhine who reported being the primary caretakers and homemakers in their families shared how their Kāne were given credit for the work they did not contribute to at home, in the community, and in their children's school. Thus, suggesting various things like the invisibility of Wāhine efforts and expertise and the decrease in value of Wāhine hard work.

Roles and expectations on gender. Many mākua and ʻōpio participants were able to

identify the roles and expectations of the previous generations. A few participants described how their grandmother's roles in Hawai'i post western contact were limited to child rearing and cooking food. While those roles were important, others did not perceive those roles to bear mana (power). *"…she was only good to watch her kids, cook food…that type of stuff... and I think it was hard for me because I saw her in a whole different light…She was the matriarch of our family and she possessed this 'ike and this experience that was no longer talked about*."

Religion was mentioned by participants as an institution that influenced societal norms and a leading contribution to the way Kāne have treated Wāhine over time. As mentioned, Christianity swept over post-contact Hawai'i and missionary wives made it their mission to transform Wāhine characteristics and behavior to those accepted by western standards. To do so, they demonized and attacked Hawaiian culture, a culture which upheld the mana of Wāhine and gave them autonomy within the Hawaiian social system (Blaisdell, 1989; Grimshaw, 1985). In this study, participants shared that religion still presents limitations for contemporary Wāhine as many believed that Kāne utilized teachings of the Bible push coverture. "*In the Bible, it says that men are over women. I think it makes men feel like they're superior.. and that they're smarter and stronger... which happens a lot in very religious households... and it doesn't matter how men treat you because the Bible says so. Even growing up, my own brothers expected me to do things for them and call me out of my name*."

Roles of women were described to be substandard to men. Some participants shared that their grandmothers and mothers were expected to tend to their husbands and their families, regardless of the physical and emotional abuse they received from their husbands. While participants held their grandmothers and mothers in high regard, they acknowledged that their husbands and society did not. Kāne were seen as the head of the household, aligning with the patriarchal system of inequality where men hold power and are central to families, communities, government, and the larger society (Saraswati, Shaw, & Rellihan, 2017). Such power came with expectations and dominance over Wāhine. Participants recounted having to be and look a certain way to be accepted by Kāne. For example, they shared having to meet western beauty standards and ettiquete. "*Culturally we've adopted that [western societal standards] too, knowing that our Hawaiian men only want women to look a certain way. And we're not allowed to have standards in men."* These descriptions were opposite from the highly regarded mana Wāhine once attained in pre-colonial, Hawaiian society. Wāhine roles were once balanced with Kāne roles, and the

stories shared by participants demonstrate western influence stripped Wāhine of power.

While participants identified subservient roles among their grandmothers, they also pointed out that binary gender ideologies were not reinforced by kūpuna in their families. Rather than focusing on the strengths and weaknesses of gender roles, participants expressed that their families focused heavily on the ʻohana (family) unit. In essence, regardless of the patriarchal influence of the west, responsibility to the ʻohana unit remained intact. "*My grandma talks about not just the wāhine in our family, which is interesting and… I never grew up like learning... like strong wahine, strong wahine, strong wahine... it was never that. It was strong ʻohana, which I appreciated because though we had different roles as wāhine and kāne, it wasn't about that and that's not what my grandma wanted to teach, which I think was… powerful because I struggled with a lot of that growing up knowing, like how my dad made my mom feel, you know, because of his history or his choices. But for my grandma, it wasn't about dehumanizing any gender you know. It wasn't about ʻoh because he was kāne he acted this way*."

However, some participants identified that Kāne took on new roles with western influence. They recognized that Kāne also suffered from the drastic changes in restrictive gender roles. Such new gender roles were described to have adverse effets on families. Thus, Wāhine began to manage a lot of decisions on behalf of their families and communities, without receiving recognition and still feeling inferior to Kāne. "*I just feel like our Hawaiian Kāne overall, kind of just take more of a... backseat role. And they don't come to the forefront as much as wāhine. And I feel like there's something in the, you know, what happened to our people that caused that... it kind of our kāne were stripped of their strength and their place in the family, and even in the community. So there's something like psychological that happened, you know, when our government got overthrown, you know, when there was loss of lives and lots of language and health issues and financial issues*." Overall, some participants expressed frustration with their intimate partners who were Kāne. However, some mentioned that Kāne who were in touch with their culture were better leaders and examples for their children.

Stigmatization and discrimination. Participants shared how disconnection from Hawaiian culture happened when Hawaiianness became inferior to other identities in Hawaiʻi. Hawaiians were stigmatized as lazy or stupid, resulting in structural implications that directly impacted participants' educational attainment, health, socioeconomic status, and experiences

with various institutions. For example, one participant pointed out that Asian kids in her high school were seen as high achieving, and therefore, they all received higher learning guidance and counseling and she did not receive the same resources until she proved she earned it. "*...in high school... Japanese and Filipinos was majority. [They were] all the privileged ones... when I was in my junior year, you know, they elevated the Japanese and the Filipinos because they're supposed to be smarter through academics... it wasn't till I went take initiative, right... Senior year I did the grad project for our senior class... I coordinated all of that and everything. And then it was only through that that the guidance counselor actually saw beyond the color of my skin, beyond me as one Hawaiian. So, she started helping giving me honest scholarship applications for college*."

Overall, the stigmatization and discrimination of Hawaiian people resulted in lack of pride in Hawaiianness, which sent intergenerational ripples. "*My grandfather was a big influence over our family... he didn't want to be known as a Hawaiian. He wanted so much to be American. My grandmother spoke Hawaiian and he told her she cannot do that in the house. It got to the point where he didn't want to eat Hawaiian food... if I just look at my life and the whole world, I think that's where I get some of my insecurities.*"

Theme 2: Institutional Eha

Institutional ʻeha was a prominent theme. It refers to ʻeha inhibiting access to power, influencing policy and practices, and access to goods, opportunities, and service. Various institutional ʻeha were described by participants, including the inability of kūpuna to learn their own language, displacement, blood quantum policies on housing, and negative experiences with the justice system. Many also indicated that trauma to Hawaiians are ongoing through institutional decision-making. Participants felt unsupported by various systems, namely the legislative, justice and educational systems. Their stories of being treated unfairly were recollections of feeling underprivileged by systems that were meant to protect or help them, which heavily impacted their mental health and self-esteem.

In 1896, after the overthrow of the Hawaiian Kingdom, the provisional government enacted Act 57 which suppressed ʻōlelo Hawaiʻi by making the English language "the medium and basis for all instruction in public and private schools" (Ng-Osorio & Ledward, 2011). The law punished students for using ʻōlelo Hawaiʻi in schools, which resulted in traumatic implications for participants' family members and themselves. For example, one participant

stated, "*... being punished for speaking Hawaiian or for wanting to learn Hawaiian... it's made the wāhine in my family... well, it kind of stripped them of their voice.*" Participants shared how the suppression of ʻōlelo Hawaiʻi catapulted into a lack of pride in Hawaiian identity among their kūpuna. In addition, it impacted their own Hawaiian identities as others demonstrated their Hawaiianess with ability to speak ʻōlelo Hawaiʻi. One participant described a previous intimate partner, a white man who made a career based on Hawaiian people. In arguments where she challenged him to ensure his work was pono, he would use her inability to speak ʻōlelo Hawaiʻi to degrade her and justify his unjustly actions. "*He presented to the... Council and he wasn't very good... And so, we got into it a lot and he would tell me, 'Oh you don't even speak Hawaiian!*"

Other institutional ʻeha included ideals and policies that reinforced land ownership, which led to land displacement among many participants and resulted in interpersonal and familial violence. Prior to western contact, Hawaiians maintained a kinship-like relationship with land, which included a political division of labor among Kāne and Wāhine. Thus, both Kāne and Wāhine possessed mana. However, western influence criticized the land tenure system of pre-contact Hawaiʻi and influenced King Kamehameha III to institute the Great Māhele, which redistributed land and introduced Hawaiians to land ownership (Hobbs, n.d.). Unfortunately, many participants and their families were placed at a disadvantage with western notions of land. One participant described how her great-grandfather lost land through alcoholism and manipulation of Americans who owned a bar, while also illustrating the implications of western substances being introduced to Hawai'i. "*My great-grandfather and great-grandmother had a lot of land… like hundreds of acres kind… So, I guess my great-grandfather liked to drink alcohol, but he couldn't pay off his tab. So, in return, bar owners would have him sign over his property… now we only have one acre left down at Waikoloa… it impacted our family in such a negative way. Like we already know a lot of locals don't have financial security. We'd all love land or to have a house… it's a one-acre lot and my papa has 12 siblings. So, they have a lot of kids and their kids have kids. So, it's a big family and all my mom's siblings want to come back, and her cousins… but there's no room and it turns family against each other… with my own family, my dad wanted to build a house on that acre because we grew up there and we took care of the land. Our family put their sweat, blood, and tears. We cultivated it and took care of it, so we felt like we deserved to build our house there. But my uncle came home and we were kicked out, basically homeless…. My mom been there all her life. They were gone over 30 years and*

came back over and created big problems for us. They ganged up on my mom and pushed us off. Our own family."

Militarism coupled with urban development displaced participants' families, changing their way of life and their interaction with ʻāina. Participants described being unable to access ʻāina and being forced into urban spaces, resulting in a lack of access to natural resources. "*[My grandparents] lived in the [sugar plantation] camp, and then I guess as things progressed after Pearl Harbor... [there was] development of Waipahu... before, they could easily go to Pearl Harbor, and they could fish and there was oysters and all these natural resources that was readily available... it's more restricted now, the waters aren't clean, and my grandpa couldn't go fishing anymore. Military dudes pushed them out*." One participant shared the impact of urbanization on her grandmother, *"... the natural resources around her were just depleting because of the development... they went from having a yard... to being in an apartment building, basically sinking their assets*."

One policy salient among participants was the Hawaiian Homes Commission Act of 1920, which was created to rehabilitate Native Hawaiians who had 50% blood or more through a government-sponsored homesteading program and give them economic self-sufficiency through the provision of land (Hawaii.Gov, n.d.). Such an act was promising as many Hawaiians lost access to land through western influence, which culminated to the Great Māhele, which is a land redistribution executed by Kamehemeha III that introduced land ownership, an ideal opposite of Hawaiians' beliefs in land tenureship and stewarding land as a deep kuleana in maintaining their kinship (Linnekin, 1983). However, participants described the contentious relationship between Department of Hawaiian Homelands (DHHL) and American and State corporations and organizations that prohibit Hawaiians from being awarded land or put current homestead residents at risk for disease. "*My family [was] relocated because of an expansion of an area for public access to the [airport] runway... the Hilo airport sits on Hawaiian Homestead land. And not only my family, but a number of families needed to be relocated in order for the expansion to occur... it actually pushed them out and away from their friends and their family... I always think DHHL keeps riding on the backs of our people constantly. And we get tested on... for example, the road [going into homestead] for years, they haven't even improved... you look at the harbor, get the sewage plant, we get one rubbish dump, we get all the industrial area all on homestead land, the airport, the military base, and it separates the homesteaders from another set of*

homesteaders because you get all this commercial things moving like petroleum... then you get the airport on one side, all other exposure. We don't even know what we are exposed to in the air from all of this going on in our own community. And we drive through this constantly. But I guess you become so assimilated to that... because you get so used to seeing it and it becomes normal, when it shouldn't be no more. And we don't want any say because of the decisions that are being made by the Department of Hawaiian Homelands and a commission speaking on our interest, right, which we may not even agree to, but how do we how do we influence these decisions?"

In addition, the act was described to create disdain and pilikia (trouble) among individuals, families, and communities. One participant married into a family with a homestead lease and shared that she could have been added to the lease as she was a quarter Hawaiian, but her husband's father refused, and her husband did not support or advocate for her. Another participant reported feeling undeserving of having a lease because other Hawaiian families are in dire need of affordable housing. "*You know, it just disheartens me I feel bad I even get one homestead you know? I feel like other families should have it. I just I feel like somebody else could use it more than me. You know one family that cannot afford right $1200 plus rent for a little apartment... I feel kind of bad. I always told myself I would never get Hawaiian Homes because I wanted to give that to somebody else that needed that opportunity. But the sad part about it was I needed it because I can't even afford to live in the actual financial state. I mean, I had no other choice. I had to resort to go homestead*." The act, although created with good intention, was described in this study as being divisive. *"... it created division and divisiveness amongst families because you know, [the DHHL commission] represents Hawaiian Homes... So, then you get crooked Hawaiians... that is driving this system to their advantage and people are blatantly seeing this in a community, right? So, you get this divisiveness amongst families.*"

In addition to experiences of displacement from homelands, participants reported on aloha ʻāina movements (e.g., protection of Mauna Kea and Kahoʻolawe) impacting them. Participants felt equally ignited and a sense of ʻeha about aloha ʻāina movements. On one end, aloha ʻāina movements opened up a space to proudly be Hawaiian and learn culture, however, the ʻeha was the continuous struggle to justify the importance of protecting ʻāina to everyone. One movement mentioned heavily was the protection of Mauna Kea from a thirty-meter telescope (TMT) construction as it was ongoing during this study and salient in the media

(Associated Press, 2021; Pisciotta, 2021). Participants shared in disappointment of Hawaiians having to fight for sacred spaces and dealing with passive aggressive comments from people in their respective communities. For example, one participant shared her experience with her co-worker. "*... when I first started working with her, she would make comments about the mauna... the president or founder of [a local grocery store] came out and supported TMT... and she started coming out kind of strongly about like seeing social media with Kānaka saying let's not support [local grocery store]... and she told me, 'how can Hawaiians make like that to [the local grocery store]. That's not aloha. You guys talk about aloha, but that's not aloha. '... and it's like, you know, [she] was totally missing the point!... I find it odd that she has roots in Kona… for a long time her family been here… you call this place home. Maybe [she's] not Kanaka, but so what kind of connection does she have to this place that is pono to her?"* Another participant stated when talking about Mauna Kea, "*I don't know if you guys had come across people in conversation and you just getting this vibe that the person just doesn't want to get it. They don't want to understand. Yeah, those conversations I've had about TMT and the mauna where I felt that... even with people within the DOE [Department of Education]. And it all goes back to our teachers who are educators. And they wonder why our test scores is like, always the same. Always huge gaps. The disconnect!*" Overall, participants felt people who hold power and money in Hawai'i maintain structural 'eha through their decisions in institutions. Such decisions are a direct threat to Hawaiians through the desecration of land.

One participant reported her distrust in the justice system because she felt it supported her perpetrators more than her. "*It was years… That was eight years of therapy at the sex abuse treatment center. Eight years of being screwed over by the justice system – to which in my mind I thought as long as I cooperated – um - that it was gonna be in my favor. It was eight years of being very disappointed because the outcomes were – it just seemed like it was more in favor of the dudes who did it, you know? They were getting away with it basically. It was years of depression, of suicide attempts, of staying in psych wards because of those suicide attempts, it was overdosing on pills, yeah. That was crazy. Dude I just got a- a check in the mail from the crime victims compensation shit because they only awarded me $200.*"

Theme 3: Personally Mediated 'Eha

Personally mediated 'eha was the third theme. It describes the abilities, motives, and intentions of others according to the participants' race and/or gender. Like the Levels of Racism

Framework, personally mediated ‘eha can be intentional or unintentional and are condoned by societal norms. Such ‘eha maintains structural and institutional racism.

In this theme, participants' experiences with Kāne were heightened. They described their feelings of inferiority as Wāhine around Kāne who maintain power in decision making. Kāne held power within families, community organizations, and within professional spaces. “*... in our community, especially if it's headed by Kāne... they decide who they let know and who they include or exclude and most of it is Hawaiian women that they're excluding. [It's] this vicious cycle of entitlement as Kāne—as Hawaiian Kāne that they can do it all because they're Hawaiian Kāne and that they have that right.*”

‘Eha distributed by Kāne was emotional, spiritual, and physical and impacted subsequent generations. However, participants identified that such ‘eha came from generations before them through structural and institutional decisions that directly impacted the Kāne in their families. “*... not being able to practice his culture and learn about his culture has made him a very angry Hawaiian... And that's led to years and years of domestic violence against both my mom and me. It made me feel hopeless and really sad because there was nothing that I could do... I didn't know when the fighting would stop... it was scary... it sucked.*” One of the participants described the intergenerational impact Kāne inflicted ‘eha had in her family, “*My great-grandfather was a very violent person. He was Hawaiian. So, I can’t imagine what he had seen as a child, but those stories were never passed down to me… but from him, my grandfather was violent and then my mother became very violent to me… there is a long history of violence. I still feel like I have expressions of that violence towards me through intimate partners. So even though I’m not a violent person and I don’t go around making trouble… I still feel like there’s that black streak… and that’s how we process anger and hurt.*”

In addition, many participants described instances of sexual violence. They shared mo‘olelo of themselves or a Wahine in their family being sexually assaulted and/or raped by Kāne. In these occurrences, there was a common feeling of hopelessness. Many felt unprotected by members of their family who either committed the ‘eha, ignored the truth, or brought home their perpetrators. One participant described being sexualized and assaulted as a young girl, “*around 13, my body started changing and I used to get touched in my sleep... it used to be like dead hot in the middle of the summer and I was sleeping in layers of clothes and blankets so that I wouldn’t feel anything. But it didn’t stop anything from happening. Home is supposed to feel*

safe, but that wasn't the case." In general, participants felt unprotected in their families and by the justice system from personal experience or the experience of others who were not believed. As mentioned in institutional ʻeha, participants believed perpetrators were more protected than them, resulting in feelings of inferiority. They attributed this ʻeha as gendered and connected to historical trauma.

Others expressed that their families' inabilities to heal from their own experiences with violence caused ripple effects for them. One participant described committing self-harm because of her father's actions of self-harm, "*my dad committed suicide... he had some historical trauma and intergenerational trauma in itself... I ended up cutting myself. I was in intermediate. My teacher actually seen my wrist and dragged me to the counselor's office.*" Many described mental health care to be stigmatized in their communities, and therefore, ʻeha transferred to them through unresolved mental health issues.

Participants also reported being ridiculed and criticized for their lack of Hawaiian cultural identity by other Hawaiians and non-Hawaiians. As described earlier, institutional ʻeha muddled Hawaiian identities with the suppression of ʻōlelo Hawaiʻi, Hawaiian culture, and blood quantum policies. Many Hawaiians joined interracial marriages and participants disclosed their predominant culture to be that of their western and/or white parent. However, in the 1970's, a Hawaiian Renaissance reactivated pride in Hawaiianess with Hawaiian voyaging practices, aloha ʻāina movements (in particular the protection of Kahoʻolawe from U.S. Navy target practice), and the revitalization of ʻōlelo Hawaiʻi. Participants who were in close proximity to these movements felt judged on their level of Hawaiianness by other Hawaiians. "*My brother wanted us to go to the Makahiki (a celebration dedicated to the god Lono to commence a time of rest and the rainy season) [on Kahoʻolawe]. So, we went. And we were getting ready to be in the procession and then this one lady, she looks at me and my sister and she says, 'oh, they Hawaiian or what? '... I questioned myself. What does it take to be Hawaiian enough?... to be a part of this ceremony? That was an experience that has really stayed with me. And it was a Hawaiian woman that said it!*"

Feelings of frustration came up as participants reported encountering cultural appropriation (inappropriate adoption of culture by members of another, typically more dominant people). Many participants and their family members experienced ostracization from practicing Hawaiian culture or being Hawaiian. Therefore, participants expressed outrage when describing

non-Hawaiian people using Hawaiian culture for their own healing and capital gain. They also acknowledged that institutions, especially educational institutions, allow for the appropriation and the degradation of Hawaiian or Indigenous peoples in their curriculums. *"There is this de-value of Hawaiian women and what they can do and how strong they are and resilient they are at home. And then I went to New Mexico, and then I was this token Hawaiian woman... it was different. Everyone wanted to be around me, everybody wanted to know all these things... and like the things that I thought was ugly and scary was beautiful to them because it spoke to my resilience. But it's just what we [Wāhine] have done to survive. But then you have all these fucking hippie white women culturally appropriating everybody else's cultures because they wanted to be liberated and it's like fuck, you don't know what it is to fight for liberation. Just because you burn sage, or you don't wear a bra or hold signs on the side of the street don't mean you know what it is to suffer. Try an entire like firkin 70 something years of just being you and surviving and not getting credit of any of that.*"

Theme 4: Internalized Eha

Internalized ʻeha describes participants accepting limitations based on other's stigmatizations. At this level, ʻeha was found to be detrimental to participants as it weakened their pride and self-worth in their identities as Hawaiian women.

The institutional ʻeha of restricting culture and language trickled down to internalized feelings of uncertainty and self-doubt, particularly regarding cultural identity. Participants accepted their contention with their identities and restricted themselves from engaging in Hawaiian culture because they felt like they did not know enough. "*When I was growing up, we didn't even we didn't even learn Hawaiian history and it was hard for me to really, really claim being Hawaiian. I was a legal secretary, and I worked for [prominent Hawaiian politician]. And at that time, she was the kiaʻaina of the [Hawaiian] nation. And I had to type the bylaws, and I'm typing it, and I never really... I never really joined the nation. Because I was so confused... I was just so so torn, and even though [prominent politician] was one of my best friends, it was hard for me to actually delve into the whole movement*." They also expressed feeling intimidated by other Hawaiian people for their lack of understanding about their culture. "*So sometimes I do feel intimidated you know around other Hawaiian people. Cause I don't know, I don't know anything, and it sucks.*"

Participants also expressed feelings of inferiority to Kāne. They acknowledged that Kāne

experienced their own ‘eha and transferred that ‘eha to participants, as discussed in the personally mediated ‘eha theme. One of the common modes of ‘eha transfer from Kāne to Wāhine was domestic violence. Through mental, physical, and emotional violence, Wāhine in these stories reinforced patriarchal structures in order to survive. “*My dad could degrade her and she’s gonna sit there and take it, and then ask him if he wants her to make his fucking plate... and when it comes to money, because she wants my dad to have that pride... he’s the breadmaker even though she got a fucking raise, but she can’t tell him because she wants him to feel really good about himself. And that was the same for her mom, my grandma... get beat up and what you like for dinner? When we were younger, my dad actually didn’t even have a job and he was still the man of the house. Jobless for years, but he was still taking credit.*”

Some participants recognized the difficulties with addressing the ‘eha they accumulated from Kāne and their upbringing, which they have internalized. Thus, this internalization has resulted in further intergenerational transmission of ‘eha to their children and future generations. “*Yeah, and I feel bad because I don’t want that for my son but that’s exactly what happens now... I always tell myself I don’t want that for him, I know how it feels but it’s just natural. It just comes and…in hindsight I’m like frick I should do it this way, but then the next time comes and it just happens.*”

Many participants brought up health and social behavioral issues that impacted them. Substance misuse and domestic violence were commonly stated by participants as ‘eha that deeply affected their self-esteem, mental health, and the choices they made throughout their lives. “*My grandmother had her child. And she became a single parent from all these things like substance misuse, lack of education, domestic violence, but what happened is that then my mother had her first child and again, single parent. And then it comes down to me and I had my child at a very young age and was a single parent. It repeated itself through generations*.”

Theme 5: Ola

Throughout the interviews and when asked their vision for ending historical and intergenerational trauma, participants most commonly focused on increasing cultural identity and self-determination, increasing pono representation in decision-making, healing for future generations, strengthening all genders, and looking to our kūpuna for guidance.

Participants highlighted the importance of education in increasing cultural identity. Many described educational programs and curriculums like Kaiaupuni and Punanaleo (Hawaiian

immersion and Hawaiian language schools) to be pivotal in healing and helping Hawaiians self-determine a Lāhui (Hawaiian nation) that is inclusive of Wāhine and strengthens all Hawaiians, regardless of gender. "*I think Kaiaupuni is definitely really viable way for us to address those things of lack of cultural identity and lack of kuleana among Kāne. I mean, you look at all like a lot of the leaders with Mauna Kea and stuff. They're all Kaiuapuni... they're grounded in what, what has been called the Kaiaupuni lens. But really, I think it's just being Hawaiian. Just having a sense of our culture, and language is a part of that. So, we need to learn that we need to relearn who we are and there is strength in that*." Increasing cultural identity was also seen as a mechanism for maintaining a sense of community. "*Just having that kaiaulu [community] feeling like knowing your neighbors feeling that kuleana [responsibility] to one another, that you're not separate, you know, you affect one another. So, it's to your advantage to work together, you know, and want to work together.*" Cultural identity also seemed to heal relationships with others and individuals that may have been severed through generations of ʻeha. "*Learning the culture has been, has been healing for me. I feel like the more I learn to be Hawaiʻi, the more I can trust people that have good intentions... and I've met people that have stood up for me and stood up with me and it is people that have similar mindsets about things that are Hawaiian."*

In addition to education, Hawaiian representation among politicians and organizations was commonly reported as a solution to healing historical and intergenerational trauma. More importantly, participants urged for representation to be pono and have aloha. It was recognized that historically and contemporarily, Hawaiians have been left out of decision-making, resulting in the ʻeha Wāhine experience today. Participants commonly felt that pono Hawaiians seated at decision-making tables could result in direct benefits for the Lāhui. "*I hope to see more Kānaka get into that political realm...the Western politics is pilau (spoiled, rotten). But in order to, quote unquote, succeed... we have to figure out how to get ourselves in there because that's where the policies are kind of decided on... and until we get people there that are willing to look at aloha before anything, we're gonna keep struggling.*"

Participants also reflected on the responsibility to heal for healthy subsequent generations. According to them, the responsibility included strengthening both Wāhine and Kāne. Many participants expressed the need for Wāhine to prioritize themselves. Overall, they reported Wāhine being the leaders of communities, aloha ʻāina movements, and, while not seen as the head of the household, they are the center of the household. Thus, participants believe

Wāhine have difficulty accepting social support, while assuming many responsibilities within their families and communities resulting in miniscule time for self-care. Therefore, participants believe a change in culture needs to occur, where Wāhine seek and accept help to increase their sense of self-worth. "*I think Hawaiian women or women in general need to allow for kōkua and need to allow for the understanding that they don't have to do it all. And that pride is not something that should prevent them from getting the help that they need like physically, mentally, spiritually, emotionally. And I believe that is gonna lead to the idea that they're good enough because people don't want help, I feel like the underlying belief is that that they're not worthy of that help, and if they're not worthy of that help then they're not worthy of anything... if we don't have that self-worth how can we have any type of other worth in this world? But I feel like that is stripped away from every single woman you know from birth, is that they're not good enough.*"

While help from others in the community and self care was important, participants also highlighted the importance of strengthening Wāhine through a systems lens. In particular, participants who described sexual and domestic violence viewed healing through justice. Many wanted to feel protected by others who believe their stories and ensure that perpetrators face real consequences for their actions. "*The justice system can help by putting those people away, believing in us, and actually making them serve. It'll give a little bit of relief knowing that this mother fucker is not just walking on the street, living his life and doing it to another person*."

As mentioned, strengthening Kāne was reported among many participants as a path to healing. According to participants, providing Kāne with the proper resources, pride, and security to heal themselves would help them recognize their kuleana to Wāhine and the Lāhui. "*We need stronger Kāne. When I mean stronger, I mean, maybe more, more, more secure*." Stronger Kāne was seen to heal future generations as well. "*We need more Kāne that these kids coming up to have that have somebody to look up... I kind of want more of that fire. I want [my sons] to have that fire in them*." In essence, Wāhine cannot heal alone. Healing must be collective and inclusive.

All participants mentioned looking to the past and carrying on ancestral values to heal. They acknowledged that ʻeha came and separated families and communities. Therefore, being like Hawaiʻi (sharing and having aloha; centering values like aloha ʻāina (love for land); deep seated kuleana to ʻāina, kānaka (people), and akua (gods, dieties)) and being like "kūpuna times" (ancestral times) are ways to mend the wrongs their kūpuna acquired. The value of mālama was

commonly shared. Mālama is defined as to take care of, tend, preserve, protect, maintain. Participants honored this value and practice as a way of life that maintained relationships and ensured everyone was healthy. Kupuna participants reflected on ways their grandparents would continue to mālama during times of ‘eha. “*I didn’t know what it was to be Hawaiian, but I knew how to mālama because of my tutu man. During World War II, the men would go fight and get women and children who were poor. Not much to eat. So, he would make pots of poi and catch and dry fish and he would leave it out on their porch… and I think that’s why I am the way I am.*”

Lastly, the value of aloha was mentioned by many participants as crucial to healing. Aloha is defined as love, affection, compassion, mercy, and kindness, a value of utmost importance to Hawaiians. Participants recognized that aloha must be embedded in every level of society to heal Wāhine and write the wrongdoings of historical and contemporary ‘eha. “*In the end, its culture and aloha. I mean pure, unconditional aloha that everybody, at every level needs to have. Then we’ll have joy, self-worth, and identity*.”

Overall, participants expressed the urgency for rematriation at every level in society. Rematriation is an act of restoring balance to the world and society and is commonly used by Indigenous women on Turtle Island (America) to push back against colonial patriarchy (Tuck, 2011). It helps Indigenous women and their nations reclaim their ancestral spirituality, knowledge, and resources to rebuild thriving Indigenous peoples, lands, and nations. In this study, rematriation means that individuals and insitutions all have the same kuleana to influence healing among Wāhine and Hawaiians as a whole. For example, individuals need to buy into the concept of healing and self-worth to end generational ‘eha, while institutions also develop specific legislation and programs to ensure Wāhine are protected and have the resources to heal. Participants vividly recounted the ways in which historical and contemproary policies and decision-making has impacted them for the worse. Therefore, there needs to be a shift in culture, where the government, institutions, media, communities, and individuals are concerned with addressing ‘eha to remove the shame, the hurt, and grief that is attached to motives seated in colonialism, capitalism, and patriarchy that plague Hawai‘i.

Discussion

The overall purpose of this study was to understand the historical and intergenerational trauma experiences of Wāhine. ‘Eha emerged as a prominent theme from the stories across the

participants. They recounted the various ways they experienced ‘eha at varying levels (structurally, institutionally, interpersonally, and internally) and by people and institutions within and outside of their ethnicity and gender. Nevertheless, findings from this study suggest that Wāhine experience ‘eha, or violence, in ways that are similar to other Hawaiians of all genders, hoewever, they also experience ‘eha that is specific to their identities as Hawaiian women. These findings align well with previous Indigenous research describing gendered experiences of historical and intergenerational trauma (Brave Heart & DeBruyn, 1998; Evans-Campbell, 2008; Walters & Simoni, 2002). In essence, Wāhine are oppressed and experience ‘eha through both their ethnic and gender identities through westernized systems that oppress and dismiss their identities and mana as Hawaiian women. Generally, participants readily identified colonialism (which is contemporarily upheld through structural and institutional ‘eha) as a key factor in creating these forms of ‘eha. The unresolved ‘eha from kūpuna who lacked access to healing has transmitted to subsequent generations, which are reinforced by the sense of inferiority and ‘eha inflicted by Kāne and western institutions and cultural norms.

Violence inherited from participants’ kūpuna through colonialism and traumatic events rooted in systems of patriarchy and capitalism caused violence of sexism and racism among subsequent generations, including participants themselves. Most notably, participants pinpointed the overthrow of the Hawaiian Kingdom and the western influence on gendered roles as key factors that have deeply impacted them and their families. This finding aligns with the critiques of Native Hawaiian scholars on how Hawaiian sovereignty, culture, and understandings of mana among the various genders was replaced with political action to militarize and commodify Hawai‘i, including ‘āina, ‘ōiwi, and culture (Kajihiro, 2000; Trask, 1983; Trask, 1985; Trask & Trask, 1992; Trask, 2000). All entities became profitable, expendable, and subordinate to western agendas and ways of being. The literature suggests that these violent events have had long-lasting implications on health and social disparities among Hawaiians (Kaholokula, 2015).

Congruent with previous literature (Trask, 1984), Wāhine in this study described facing “double colonization” or being oppressed and dominated by outside groups and structures as well as their Kāne. Thus, it is important to unpack how various “isms” (sexism, racism, classism, homophobia, etc.) intersect and uphold ‘eha against Wāhine. Much literature regarding historical and intergenerational trauma points to colonization as the culprit of oppression among

Indigenous peoples (Brave Heart et al., 2011; Evans-Campbell, 2008; Walters et al., 2011). However, unpacking ʻeha unique to Wāhine requires a wider lens. As Kanuha (n.d, p. 2) stated, "*the… myth is that colonization is at the root of violence against women and in a hierarchy of oppressions, colonization is the most important form of oppression. Furthermore, that… other kinds of oppression are not as critical or as harmful… if we believe that colonization really is at the root of violence, then how do we explain that colonized women are not violent against men since all of us were, after all, colonized together?... Hawaiian women do not abuse Hawaiian men at the same rate that they (Hawaiian men) abuse us*."

Sexual and domestic violence committed by Kāne were common experiences among participants. Such qualitative findings are supported by the limited quantitative data on violence against Wāhine. For example, Wāhine experience higher rates of intimate partner violence when compared to non-Hawaiians and the total State of Hawai'i population (Hawaiʻi Health Data Warehouse, 2013). In addition, in a study of 97 participants who were victims of sex trafficking, 64% were Hawaiian (Roe-Sepowitz & Jabola-Carolus, 2020).

Across the globe, there are movements and coalitions to address Missing and Murdered Indigenous Women. In Hawaiʻi, recent events like the alleged abuse and murder of 6-year-old, Ariel Sellers by her adoptive parents and a series of missing Hawaiian girls on Hawaiʻi Island during the COVID-19 pandemic demonstrate the urgency to address all ʻeha against Wāhine that put them at larger risk for sexual and domestic violence, trafficking, etc. ("Concerns Over Missing Children, Sex Trafficking Prompts Community Meeting", 2020; Osher, 2021). Legislation, resources, and culture must align with the health and well-being of our Wāhine population. Most recently, Ariel's Bill or HB 2424 was introduced in the 2022 Hawaiʻi State Legislative Session to grant the Child Welfare system extra funding and institute surveillance of families who have adopted children. While the political climate after the emotional upheaval of missing Ariel Sellers opened a window of opportunity, Governor David Ige vetoed the bill in July 2022 even though both the House and Senate passed the bill. Such a tragic decision is revealing of the ongoing institutional culture that perpetuates Missing and Murdered Indigenous Women. Therefore, it is critical that governments and other institutions of power that impact well-being are held accountable for their part in violence. Research such as this study can play an integral part in accountability by illustrating the heartbreaking results of dormancy through data. At the minimum, stories of Missing and Murdered Indigenous Women can be documented and

retold in perpetuity in an effort of anti-erasure. Although change can seem meek without support from high officials, Hawai‘i’s State Commission on the Status of Women and the Office of Hawaiian Affairs have created a task force to continue the work on this issue, leaving some sense of hope to Wāhine in the future (Office of Hawaiian Affairs, 2022).

In addition, participants frequently brought up policies and motives to extract and erase Hawaiians from their culture and land. They recognized that such actions were detrimental to their cultural identity. The lack of cultural identity seemed to be both a result and mechanism of ‘eha. This ‘eha created feelings of insecurity and inferiority among participants and was often attributed to the violent behaviors of Kāne. Having a strong sense of cultural identity has been found as a protective factor of health (Blaisdell, 1989; Hishinuma et al., 2000; Walters & Simoni, 2002). In response, health research has sought culturally responsive and grounded approaches to prevent diseases (Kaholokula et al., 2018). However, disease is not caused by individual behavior alone. Frameworks and concepts like the Social Determinants of Health and a Culture of Health state that health is impacted by various conditions, institutions, and sectors similar to how ‘eha is described in this study (Healthy People 2030, n.d; Li & Pagan, 2016). Therefore, to truly promote well-being among Wāhine, health equity, justice, and healing must come from a multi-level, systemic approach where every institution and sector is held accountable to addressing and preventing ‘eha experienced by Wāhine.

It has been common practice for public health programs to target individual behaviors and increase the skills and tools necessary to build resilience in the face of adversity for marginalized groups (Walters et al., 2020). While resilience is indeed an important characteristic to promote as it has sustained Hawaiians through centuries of ‘eha, public health practitioners should seek systemic solutions to Wāhine healing. A multi-sector, systemic approach to healing redistributes the ownership of ‘eha and makes an entire system responsible for Wāhine health. In essence, it is not enough to put the responsibility of being resilient on Wāhine to be able to exist and survive within a system where they faced compounded forms of ‘eha.

Programs, policies, and sectors should be combed through to distinguish the ways in which ‘eha among Wāhine are perpetuated. An intersectional lens is required in every policy, effort, and movement to ensure Wāhine are not erased or invisible. The Protect Maunakea Movement was seemingly very concious and intentional about the shared leadership among Wāhine and Kāne, as there was a fluidity in genders presenting in the media, leading protocol at

the Maunakea site, and involved in decision making (Watson-Sproat, 2019). Similar to Black, Indigenous, and People of Color on the continental U.S., diversifying leadership to increase inclusivity in decison-making and power has been one way to address ʻeha in Hawaiʻi. Diversity in leadership in these various sectors increase the opportunity to promote equity and healing (Coronado et. al, 2020; Eze, 2020), however, simply being Wāhine is not enough to lead in decision-making spaces. As demonstrated by participants, leaders must be pono and value aloha ʻāina, as Hawaiian leadership has not always favored Hawaiians collectively. Likewise, spaces of learning and healing should center curriculums and agendas in aloha ʻāina to reestablish connection to ʻāina, which is integral to Hawaiian health (Keliiholokai et al., 2020). Furthermore, Hawaiian culture, language, and history should be represented across all educational arenas, and not only subject to Kaiaupuni and Hawaiian language schools, to ensure all keiki and adult learners understand their kuleana to Hawaiʻi. Such an effort could directly counteract colonialism and Act 57 which almost eliminated ʻōlelo Hawaiʻi.

The University of Hawaiʻi at Mānoa requires all of its undergraduate students to take an introductory course on the "unique aspects of the native point of view in Hawaiʻi and in the larger Pacific with regards to origins, language, religion, land..." (University of Hawaiʻi at Mānoa, n.d.). One participant in this study described benefitting from the class as a Wāhine learning her own history for the first time. However, the course cannot act alone and the university, as an institution also has kuleana in examining the ways they perpetuate ʻeha among Wāhine. Other institutions and systems mentioned by participants in this study that urgently need to address ʻeha are the U.S. military, the tourism industry, criminal justice system, and mental healthcare. Many of these institutions and systems promote ʻeha as evident in health and social disparities among Wāhine and Hawaiians as a whole.

Participants expressed healing with community, with Kāne, and with ancestral values, demonstrating the importance of collectivism in Hawaiian culture. The liberation of Wāhine, therefore, is the liberation of all Hawaiians from keiki to kūpuna (including the kūpuna passed). Historical and intergenerational trauma are a collective ʻeha and so, healing must also be collective. For example, systematic solutions should aim to restore the ʻohana unit, the kaiaulu (community) unit, and the Lāhui in order to truly heal Wāhine as programs focused on healing the individual may not be enough. Frameworks like Kūkulu Kumuhana illustrate that Hawaiian health and well-being begins with the ʻohana unit and is optimal when every level (ʻohana,

community, organizational, and policy) embodies dimensions like ʻāina momona (fertile land), ea (self-determination), ʻōiwi (nativeness), pilina (relationships), etc. (Kūkulu Kumuhana Planning Committee, 2017). Therefore, Wāhine health is dependent on her relationships with her ʻohana, kaiaulu, ʻāina, akua (spirituality), etc. The importance of the ʻohana unit has been evident in health programs. For example, Mokuau, Braun, and Daniggelis (2012) developed a health education program for Wāhine recovering from breast cancer that included their family members and results implicated that women had increased self-efficacy and coping skills. Such health educational programs have already suggested that healing in Hawaiʻi is relational and collective. Therefore, systems like the criminal justice could be reimagined with a collective approach to benefit Wāhine. Further research could provide a deep understanding of what that would look like.

This study is not without limitations. First, there is a lack of generational perspective because sampling did not come from one family. Therefore, it is uncertain that experiences of violence were inherited by previous generations because the study did not sample from multiple Wāhine in a family. Perhaps data would have been more valid if data was collected directly from different genereations in one family to display the multigenerational experiences of ʻeha and its transmitted. Secondly, given the sensitive nature on trauma and violence, obtaining a larger sample size was difficult. However, theoretical saturation was reached with the amount of interviews collected. Another limitation was the online platform of collecting data. The original plan was to interview participants in-person. However, due to the COVID-19 pandemic, this was not possible and could have impacted thed level of richness of the data collected. Lastly, this study contained a bird's eye view of ʻeha. Each specific ʻeha and each level of ʻeha have their own implications and should be explored in future research to determine specific solutions. Therefore, future studies may expand on this research by interviewing multiple Wāhine within the same family and employing a lifeline method (de Vries et al., 2016; Mellman, 2016), which helps to visualize life histories on a timeline. Participants would be able to construct their lifeline from birth to present date and mark traumatic events or experiences that impact their health and well-being as Wāhine. Ideally, those lifeline visuals would be compared across a grandmother, mother, and daugther trio to identify the ʻeha modes of transmission. Such research would help various sectors identify target areas of healing or justice to ensure health of Wāhine.

It should be mentioned that participants possessed existing pilina with the researcher. Although western research might see that as a limitation, impacting bias, pilina allowed for in-depth storytelling (Odom, Jackson, Derauf, Inada, & Aoki, 2019). It seemed as if participants felt comfortable sharing their traumatic experiences and stories of violence. In addition, the interconnection of existing pilina and the Indigenous lens of the research team made for a robust analysis of the data.

Listening to difficult mo‘olelo and accounts of violence and abuse caused fatigue and retraumatization for the primary researcher. When Indigenous researchers approach research within their communities and for their communities, a heavy burden of kuleana is placed on them both individually and collectively (Kanuha, 2000). Indigenous researchers are not just demystifying issues to ensure the overall health of the public, they are demystifying personal issues and those that directly impact their ‘ohana and communities. Therefore, in many instances, it was difficult for the researcher to separate herself from the research. As a result this particular study took time.

“[T]heir prominence in the Kumulipo means that women are not effaced in the consciousness of the Lāhui; both men and women take their parts in the creation and reproduction of life, and in the mo’olelo that follow” (Silva, 2004, p. 102). Addressing the accumulated ‘eha of Wāhine has the power to uplift all Hawai’i if systems and institutions prioritize rematriation and collectivism in healing. Findings from this study alone communicate the urgency for change to heal Wāhine with radical aloha and support them in reimagination of a world that is inclusive of their needs. Further data, both qualitative and quantitative, must be collected to deepen our understanding of ‘eha and create solutions for the well-being of our Wāhine.

CHAPTER 4 AN ASSESSMENT OF THE PSYCHOMETRIC PROPERTIES OF THE ADAPTED HISTORICAL LOSS SCALE AMONG WĀHINE

Abstract

Historical trauma has been attributed to health and socioeconomic disparities among Wāhine (Native Hawaiian women). Literature suggests they experience historical trauma uniquely through their sex and gender identity. Measurement tools to examine this attribution have yet to be validated among a Wāhine-only sample. This study sought to examine the psychometric properties of the adapted seven-item Historical Loss Scale (aHLS) from the Hawaiian Homestead Survey with data obtained through the Ke Ola O Ka ʻĀina Study. Response choices were adapted to reflect the level of impact from historical trauma, rather than the frequency of thought of historical losses based on findings from a previous qualitative study. Factor analysis tests were employed to assess the factor structure of the scale. A hierarchical, three-factor, six-item aHLS was found to have the best fit (RMSEA=.14, CFI=.99, SRMR=.01) based on meaningfulness of factor loadings. While the model's factors and sum score had good reliability, it demonstrated poor validity. Findings suggest that aHLS should be further adapted to include items that accurately capture the conceptualizations of Wāhine historical trauma.

Introduction

Salience and/or intensity of historical trauma remains a major area of study related to various health outcomes of Indigenous people. The impact of historical and intergenerational trauma has been theorized as a stressor, impacting physical health, health behaviors, and mental health among Indigenous populations (Sotero, 2006; Walters & Simoni, 2002). Among those populations are Wāhine (Native Hawaiian women) who have collectively suffered through various historical and contemporary events, which pose risks to their health and overall well-being. For example, historically, Wāhine experienced cultural and gendered degradation, where a western value system and the illegal occupation of the U.S. in Hawai'i belittled the traditional roles and traditional roles and characteristics of Wāhine and forced them into subservient roles, limiting their mana (power) among westerners and men (Kaomea, 2005). Today, they face several health and socioeconomic disparities. For example, when it comes to the economic well-being of Wāhine, they are paid 71 cents for every dollar white men are paid and 82 cents of which Kāne are paid (Anderson & Williams-Baron, 2017). In addition, in 2015, 42.2% of

Wāhine in the 9th grade harmed themselves compared to 33.4% of non-Hawaiian female 9th graders and 19.1% of 9th grade Kāne adolescents (HHDH, 2017a). Such disparities have largely been addressed through programs focused on the individual-level factors of health of Native Hawaiians and Pacific Islanders (Helm & Okamoto, 2013; Kaholokula et al., 2013; Kaholokula, Ing, Look, Delafield, & Sinclair, 2018). While those programs have found favorable outcomes, our understanding of the way Wāhine experience historical and intergenerational trauma is unique. Quantitative evidence to demonstrate the salience of historical and intergenerational trauma among contemporary Wāhine could illustrate the dire need to address the collective experience of trauma with more systematic solutions. Among Wāhine, historical and intergenerational trauma are considered theoretical. Quantitative measurements enumerate these constructs, facilitating concrete data for systems change.

However, as illustrated in study 1, quantitatively and accurately measuring latent constructs like historical trauma is difficult. In a systematic literature review, Gone et al. (2019) reported that current studies of Indigenous historical trauma health impacts have not produced a coherent body of knowledge. They suggest refining measures of historical trauma and clarifying the construct of historical trauma itself. Overall, a standardized measure of historical trauma is difficult to achieve as measures are not easily generalizable due to the unique experiences of colonization and unresolved trauma experienced by Indigenous sub-groups. However, existing measures have still produced insightful results that could be useful in determining public health solutions that are equitable and respondent to the needs of Indigenous peoples.

Several researchers have sought to quantitatively measure historical trauma (Jervis, 2006; McKinley, Boel-Studt, Renner, Figley, Billiot, & Theall, 2020; Whitbeck, Adams, Hoyt, & Chen, 2004), but the Historical Loss Scale (HLS) developed by Whitbeck and colleagues (2004) is the most widely utilized as demonstrated in Study 1. Drawing on the literature and the recommendations of Native American elders, HLS measures the frequency of thought about historical losses (i.e., loss of land, loss of language, loss of respect of elders by children, loss of respect for traditional ways, etc.). Respondents rate how often they think about a particular historical loss with a six-point Likert scale. In their study, Whitbeck et al. (2004) suggest that HLS may be helpful in standardizing assessments for other ethnic, cultural, and racially marginalized communities. Furthermore, they suggest that findings and other literature about historical trauma may be helpful in thinking about negative contemporary experiences among

Indigenous people.

In Hawai‘i, Pokhrel & Herzog (2014) employed HLS in a study among Kānaka Maoli community college students. They removed items that were irrelevant to Kānaka Maoli and found that historical trauma, when mediated by discrimination, is positively associated with substance abuse among their sample population. Interestingly, the direct pathway between historical trauma and substance abuse was negatively associated, which they acknowledged was anomalous. In addition, using structural equation modeling, they found no statistical significance between historical trauma and gender identity. While these findings are important to the body of literature regarding Kānaka Maoli and historical trauma, there are no published studies that exist that aim to psychometrically validate and find dimensionality of HLS among a sample of Kānaka Maoli to inform its use in research.

Scale Validity

Validity in survey research is the "process of examining multiple types of evidence to evaluate the degree to which these claims are true" (Harrison). One way to validate a scale in a survey is to explore its psychometric properties through factor analysis. Factor analysis groups scale items that are most related or correlated to each other ("A Practical Introduction to Factor Analysis: Exploratory Factor Analysis" n.d). In essence, the goal of factor analysis is to divide items into groups that fit together. Items that are highly endorsed by a sample are recommended to keep in a scale and those that have low endorsement and low correlation with other items are recommended to drop. Essentially, all items correlated to each other, work together to inform a latent construct like historical trauma. Goodness of fit statistics are measures from factor analyses that identify the best model fit and helps to determine whether a scale is measuring what it intends to measure. Scales may contain 1) multi-dimensional, 2) multiple sub-factors (or groups) to make up an overarching factor, or a unidimensional, where scale items (variables) make up one factor.

Previously, HLS has been validated among American Indian groups. In the original study, Whitbeck and colleagues (2004) conducted a factor analysis on the unidimensional, 12-item, original scale and reported that the scale items loaded well on the latent-construct (or perceived historical loss) as a one-factor, 12-item scale. Factor loadings (how well an item influences the latent construct) were high and acceptable, ranging from .62 to .86. Therefore, items were moderately and highly loaded on the perceived historical loss construct, implying that

participants endorsed these items. Unfortunately, Whitbeck et al. did not report on any other psychometric goodness of fit coefficients that determine model fit. HLS was also administered to 636 North American Indigenous adolescents as reported in a 2016 study by Armenta and colleagues (2016). An adapted 10-item survey was administered, and it was determined that a three-factor model was a good fit: 1) General loss of culture, 2) Loss of people, and 3) Cultural mistreatment (RMSEA=.03, CFI=.95, SRMR=.04).

HLS has been administered with Kānaka Maoli through the Hawaiian Homestead Health Survey (Antonio, Keaulana, Townsend-Ing, Williams, & Hawaiian Homestead Survey Team, in-progress). The sample consisted of Kānaka Maoli adult residents of the Hawaiian Homestead Lands from the islands of Oʻahu and Hawaiʻi (n=491). Researchers and community members adapted the original 12-item HLS scale to an 8-item scale, which included the following items: 1) The taking of our land, 2) Fewer and fewer people using our traditional language, 3) Destruction of our culture and traditional spiritual ways, 4) Loss of respect for elder by our children and grandchildren, 5) Loss of respect by our children for traditional ways, 6) Distrust, resentment, or fear toward whites, 7) Destruction or damage of traditional foods, and 8) The destruction of natural resources and beauty due to pollution, mining, and other industries. The six-point Likert scale response options were employed, mirroring the original HLS scale. Antonio and colleagues (in-progress) conducted confirmatory and exploratory factor analyses to determine the best fit model among the study sample. The final model produced the Adapted Historical Losses Scale (aHLS), a three-factor, seven-item model. Scale items included: 1) Taking of land, 2) Fewer and fewer people using our traditional language, 3) Destruction of our culture and traditional spiritual ways, 4) Loss of respect for elders by our children and grandchildren, 5) Loss of respect by our children for traditional ways, 6) Distrust, resentment, or fear toward whites, 7) Destruction or damage of traditional foods (RMSEA=.07, CFI=1.0, SRMR=.01).

The Current Study

While HLS has been psychometrically tested to determine evidence for validity and reliability among a Kānaka Maoli sample, the scale has yet to be empirically tested among Wāhine alone. Similar to other Indigenous populations, historical trauma is theorized as a determining factor of poor health and social outcomes among Wāhine However, Wāhine face gendered-forms of oppression in addition to colonialism, including patriarchy, sexism, and

misogyny (Kanuha, n.d.; Kaomea, 2005; Kaomea, 2006; Trask, 1984). Empirically testing the HLS scale among Wāhine can help in developing a valid measurement to provide insight on impact of historical trauma on Indigenous women, which can be used to find statistically significant relationships between historical trauma and health and social outcomes. Furthermore, the process of validation of a scale is pertinent in inference and recommendation-making as published inferences widely impact public policy, public health programs, and resource distribution.

Purpose of Study

The purpose of this study was to examine whether a Wāhine sample would endorse the three-factor, 7-item aHLS proposed by Antonio and colleagues (in-progress) using a confirmatory factor analysis (CFA). Furthermore, if the CFA indicated the hypothesized three-factor model had a poor fit, exploratory factor analysis (EFA) and additional psychometric testing would be attempted to find a better model fit of aHLS with the Wāhine sample.

Application to conceptual model

This study was informed by the adapted Historical Trauma Conceptual Model as it psychometrically assesses a scale which measures historical traumatic events with a sample that represents subsequent generations who likely did not experience the initial historical traumatic events themselves, but because of unresolved trauma, face ongoing adversities.

Methods

Study design

The current study is a quantitative, cross-sectional study design to determine the psychometric properties of the adapted HLS from the Hawaiian Homestead Survey (Antonio et al. in-progress) with a sample of Wāhine from Hawai‘i. Community-based participatory research principles were employed to conduct this study.

Community partnership

To conduct this study, the Waimānalo Pono Research Hui (WPRH) was asked to be a partner to enhance relevance and receptivity. WPRH is a community and academic partnership developed in 2017 with a mission to collaborate and work towards a healthier Waimānalo (a pre-dominantly Hawaiian community) through education, aloha ‘āina (love and stewardship of land), and honoring and transferring ‘ike (knowledge) and values of the kūpuna (elderly) to the keiki (children) through pono research principles (Chung-Do et al., 2019). The Hui established

protocols and rules of engagement for research conducted in and with Waimānalo residents to ensure ethical and pono (just/righteous) practice of the research process that is beneficial for the community (Keaulana et al., 2019). WPRH members collectively have expertise in Hawaiian culture, practice, and values, and are familiar with the research process.

The data utilized to conduct this study was gathered through the Ke Ola O Ka ʻĀina (KOOKA) Study Survey led by Dr. Mapuana Antonio, a WPRH academic member. The author of the current study is also a long-term WPRH member and a former graduate research assistant of the KOOKA Study. The KOOKA Survey was proposed to WPRH in August 2021 and approved by members who are residents in the community. During the process, justification of the need of the study was provided, along with introduction of how the current dissertation research would benefit the community and graduation. After approval, community members helped to recruit a purposive sample.

Sample

A non-probability, convenience sampling method was conducted to recruit participants to complete the KOOKA Study Survey. Participants were recruited by KOOKA researchers and community partners on Hawaiʻi Island, Maui, Oʻahu, and Kauaʻi. To be eligible to participate, individuals were required to be 18 years or older and Kānaka Maoli. To reach sufficient effect size, a subject to item ratio method was used, where five participants were required for each scale item and factor included in the analyses (Oborne & Costello, 2004). Therefore, this study aimed to recruit an overestimated total of 160 Wāhine participants.

WPRH members and community members throughout Hawaiʻi Island, Maui, Oʻahu, and Kauaʻi helped to recruit participants between September 2021 through August 2022. The collected data included a sample size of 296 Kānaka Maoli, ages 18 and older, who were majority Wāhine (n=234). Since the current study aimed to assess psychometric properties of HLS among an all-Wāhine sample, all Kāne were removed for the purpose of this study. In addition, participants with missing HLS data were removed, resulting in a final study sample of 218 Wāhine. All participants were given a $25 gift card as an incentive for agreeing to participate in the survey.

Measures

aHLS suggested by Antonio and colleagues (in-progress) was the primary measure in this study. As mentioned, aHLS was adapted from the original HLS by Whitbeck and colleagues

(2004) based on community feedback to fit the experiences of Kānaka Maoli and factor analysis. It included the following items: 1) The taking of our land, 2) Fewer and fewer people using our traditional language, 3) Destruction of our culture and traditional spiritual ways, 4) Loss of respect for elder by our children and grandchildren, 5) Loss of respect by our children for traditional ways, 6) Distrust, resentment, or fear toward whites, and 7) Destruction or damage of traditional foods.

Response choices in the current study were adapted to reflect intensity of impact rather than frequency of thoughts about historical losses based on findings from Study 2 and a reassessment of the purpose of collecting quantifiable data on historical trauma. Study 2's results suggested that historical events, while not often thought about, still impacted Wāhine's contemporary traumatic experiences. Therefore, the response choices aimed to accurately capture the intensity of impact to demonstrate the persistence of historical trauma in the lives of Wāhine. To measure this, respondents were asked to rate the level of impact historical losses have had on them or Kānaka Maoli in general based on a 5-point Likert scale, ranging from 0 (none) to high (4). Similar to the method of scoring by Antonio and colleagues, the total score was the mean of all item scores. Higher scores indicated higher intensity of impact from historical losses.

To determine convergent, discriminant, and predictive validity, 11 items from Center for Epidemiological Studies-Depression (CES-D) scale and four items from the Personal Wellness Index (PWI) from the KOOKA Survey were included in the analysis. The CES-D Scale measures depression with four sub-factors (depress affect, positive affect, somatic, and interpersonal) made of 11-items (Gellis, 2010). The original PWI comprises 7 items measuring satisfaction with life (International Well-Being Group, 2013). In this study, to reduce the length of the entire KOOKA Survey to prevent respondent burnout, only four PWI items were included. Items were chosen based on overall health, relationships, and safety. Both scales were summed and averaged to determine total scores. All items and their respective response options can be found in Table 4.1.

Table 4.1 Study Measurements

Measure	Items	Response options
Primary measure Adapted Historical Loss Scale	1. The taking of our land 2. Fewer and fewer people using our traditional language 3. Destruction of our cultural and traditional spiritual ways 4. Loss of respect for elders by our children and grandchildren 5. Loss of respect by our children for traditional ways 6. Distrust, resentment, or fear toward whites 7. Destruction or damage of traditional foods	Level of impact: 1. None 2. Low 3. Medium 4. Moderate 5. High
Scale to assess validity Center for Epidemiological Studies-Depression	1. I did not feel like eating; my appetite was poor. 2. I felt depressed. 3. I felt everything I did was an effort. 4. My sleep was restless. 5. I was happy. 6. I felt lonely. 7. People were unfriendly. 8. I enjoyed life. 9. I felt sad. 10. I felt that people disliked me. 11. I could not get going.	1. Rarely (less than 1 day) 2. Some of the time (1-2 days) 3. Occasionally (3-4 days) 4. Most of the time (5-7 days)
Scale to assess validity Personal Wellness Index (International Wellbeing Group, 2013)	1. How satisfied are you with your health? 2. How satisfied are you with your personal relationships? 3. How satisfied are you with how safe you feel? 4. How satisfied are you with your future security?	Scale of 0-10 0, Completely dissatisfied 5, Neutral 10, Completely satisfied

Measure	Items	Response options
Scale to assess validity Historical Traumatic Events	1. Forced not to speak ʻŌlelo Hawaiʻi 2. Forced not to practice cultural expression 3. Forcibly removed from traditional homelands and relocated 4. Hawaiian traditional healing or spiritual practices outlawed or prohibited 5.	1. Children 2. Self 3. Parents 4. Grandparents 5. Great grandparents 6. None
Scale to assess validity Major Experiences of Discrimination	1. Have you ever experience discrimination, been prevented from doing something, or been hassled or made to feel inferior in any of the following situations because of your gender identity? 2. Have you ever experience discrimination, been prevented from doing something, or been hassled or made to feel inferior in any of the following situations because of your race?	1. At school? 2. Getting hired or getting a job? 3. At work? 4. Getting housing? 5. Getting medical care? 6. Getting service in a store or a restaurant? 7. Getting credit, bank loans, or mortgage? 8. In the street or in a public setting? 9. From the police or in the courts?

aHLS Psychometric Analyses

Factor Analyses

Confirmatory factor analyses (CFA) were conducted in Mplus to determine model fit for a null model (with 0 correlations set for each time), one-factor model (Pokhrel & Herzog, 2014; Whitbeck et al., 2004), and the 3-factor model proposed by Antonio et al. (in-progress) from the Hawaiian Homestead Survey. Due to poor model fit, an exploratory factor analysis (EFA) was conducted. Goodness of fit indices that determined acceptable and good model fit included the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Standardized Root Mean Squared Residual (SRMR) fit index. The acceptable cutoff values to determine fit in this study were .07 or less for RMSEA, .95 or greater for CFI, and .08 or less for

SRMR (Coughlan & Hooper, 2008; Hu & Bentler, 1999). Factor loadings were also explored to determine meaningfulness of scale items. During this process, scale items were dropped if they double loaded onto two or more factors in a multidimensional scale and/or if their value was .4 or less.

aHLS Reliability

Reliability, or the consistency of results, was measured with aHLS items from the model that demonstrated the best fit. JASP was utilized to calculate Cronbach's Alpha and McDonald's Omega for aHLS. Cronbach's Alpha is widely used to determine reliability; however, it often underestimates scale reliability (Brown, 2014). Therefore, McDonald's Omega was also reported as it a better indicator of scale reliability (Ha2 & Coutts, 2020; McDonald, 1999). The acceptable cutoff for the standardized Cronbach alpha and McDonald's Omega was .7 or greater. Although the original scale has been psychometrically tested in the past, the adapted measure has not yet been tested, and thus, a value of .7 was selected. (Brown, 2006).

Validity Testing with Bi-Variate Associations

To determine the convergent and divergent validities, composite scores were computed, and bi-variate associations were conducted in SPSS. Pearson's correlation *r* coefficient determined whether scales converged, diverged, or predicted each other. The scales included for this validation process are listed in Table 4.1 and are 1) the Center for Epidemiological Studies Depression Scale (CES-D; 11-items; Gellis, 2010), 2) Personal Wellness Index (PWI; four-items; International Wellbeing Group, 2013), 3) Historical Traumatic Events Scale (HTE; four-items; Pokhrel & Herzog, 2014), and the 4) Major Experiences of Discrimination based on both gender and race (MED; 18-items; Sternthal, Slopen, & Williams, 2011). Positive, moderate to higher correlations were expected for aHLS and CES-D, HTE, and MED as the three scales are like aHLS in that they measure adversity. Lower, negative correlations were expected between aHLS and PWI as they measure different constructs.

Results

Participant Characteristics

A total of 218 Wahine were included in the study sample. Participants' ages ranged from 19-89 with an average age of 39.5 (SD=15.6). Of the participants who reported relationship status, 29.8% were never married, 27.5% were married, 6.9% were divorced/separated, and .9% were widowed. Almost half of the participants called rural areas home (48.1%). Participants had

an average score of 3.5 (SD=1.0) on the Adapted Historical Losses Scale. Participant characteristics are described in greater detail in Table 4.2.

Table 4.2 Participant Characteristics

Characteristics	Mean (SD) or N, %
Age (years)	39.5 (SD=15.6)
Marital Status	
Never married	65 (29.8%)
Married	60 (27.5%)
Divorced/separated	15 (6.9%)
Widowed	2 (.9%)
Geographic area	
Urban	104 (48.1%)
Rural	112 (51.9%)
Mean of adapted Historical Losses Scale summed Score*	3.5 (SD=1.0)

HLS Psychometric Models

Preliminary analyses were conducted to verify the factor structure of HLS. A series of confirmatory factor models were conducted to determine model indices for a null model (with 0 correlations set for each item), one-factor model (Pokhrel & Herzog, 2014; Whitbeck et al., 2004), and the three-factor model proposed by Antonio et. al (in-progress). The three-factor model based on Antonio et al., included three factors: loss of culture, intergenerational loss, and destruction of traditional foods and distrust.

Due to poor model fit based on goodness of fit statistics for all three of the CFAs (see Table 3), an EFA was conducted. A three-factor model with one dropped item (item 6) was acceptable based on goodness of fit statistics (RMESA=.06, CFI=1.00, SRMR=.00). However, when confirming the three-factor EFA model with a CFA, all fit statistics were acceptable except RMSEA (RMSEA=.14, CFI=.99, SRMR=.01).

As a result, an additional CFA was conducted based on a hierarchical three-factor, 7-item

model and treating the items as continuous variables. However, that CFA resulted in unacceptable fit (RMSEA=.23). Therefore, the model highly considered among this study population was the three-factor model suggested by Antonio and colleagues (in-progress), but with six-items, as factor loadings in this model made the most sense and all other fit statistics were acceptable (CFI=.99, SRMR=.01). In addition, compared to all other CFAs and EFA models, the model demonstrated the best goodness of fit coefficient values. Lastly, a CFA of a hierarchical model of the three-factor, six-item scale was conducted to assess for a better model fit. Goodness of fit coefficients were the same in the hierarchical model (RMSEA=.14, CFI=.99, SRMR=.01). Therefore, the final accepted model was the hierarchical, 3 sub-factor, 6-item model. A summary of the CFA and EFA model results are presented in Table 4.3. A pathway model illustrating the factor loadings between the latent construct historical losses, the three factors, and the six items are presented in Figure 4.1.

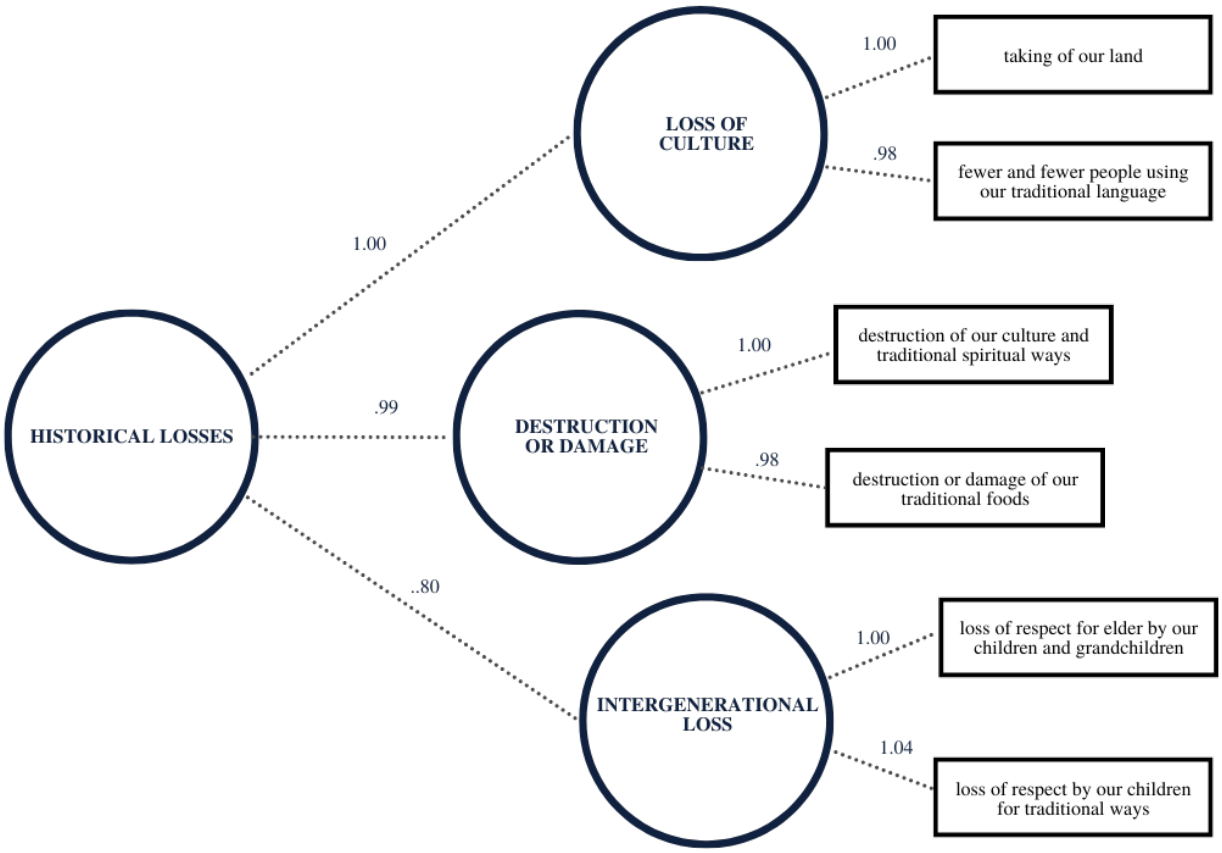
Table 4.3 Summary of Confirmatory Factor Analyses and Exploratory Factor Analyses Results and Decision Matrix for the adapted Historical Losses Scale (aHLS)

Model	Chi-square	*df*	SRMR	RMSEA	CFI	Model Fit	Decision
HLS CFA Models							
Null (@0 correlations)	Model terminated					Poor fit	Not recommended
One-factor model (originally proposed by Whitbeck et al., 2004)	463.94*	14	.08	.38	.94	Acceptable SRMR and CFI, Poor RMSEA	Not recommended
Three factor model (based on the suggested model provided by aHLS) F1: Items 1-3 F2: Items 4-5	141.491*	11	.02	.23	.98	Acceptable SRMR and CFI, Poor RMSEA	Not recommended

Model	Chi-square	*df*	SRMR	RMSEA	CFI	Model Fit	Decision
F3: Items 6-7							
HLS EFA Models (Based on 7-items)							
One-factor EFA model (7 items)	463.94*	14	.13	.38	.94	Acceptable CFI, Poor SRMR and RMSEA	Not recommended
Two-factor EFA model (7 items) F1: Items 1-2, 5-7 F2: Items 3-4	106.594*	8	.03	.23	.98	Acceptable SRMR and CFI, Poor RMSEA	Not recommended
Three-factor EFA model (5 items) (.5 cut-off) F1: 1 and 2 F2: 3 and 7 F3: 4 and 5	5.986*	3	.00	.06	1.00	Excellent SRMR, and CFI, Acceptable RMSEA	Selected model; proceed with CFA of EFA
HLS CFA of EFA Model							
Two-factor CFA of EFA (7 items) F1: Items 1-2, 5-7 F2: Items 3-4	432.716*	*13*	.07	.38	.94	Acceptable SRMR, Poor RMSEA and CFI	Not recommended
Three-factor CFA of EFA (6 items) F1: Items 1-2 F2: Items 3, 7 F2: Items 4, 5	8051.320	*15*	.01	.14	.99	Acceptable SRMR and CFI, Poor RMSEA	Final selected model
Three-factor CFA of EFA hierarchical model (6 items) F1: Items 1-2 F2: Items 3, 7	8051.320	*15*	.01	.14	.99	Acceptable SRMR and CFI, Poor RMSEA	Final selected model

Model	Chi-square	*df*	SRMR	RMSEA	CFI	Model Fit	Decision
F2: Items 4, 5							

Figure 4.1 Pathway Model of the Accepted Hierarchal, 3 Sub-Factor, 6-Item Model



Reliability and Validity

Once the acceptable factor model was selected, internal reliability (Cronbach's alpha reliability and McDonald's Omega) was calculated using the JASP software. Based on Cronbach's alpha and McDonald's Omega, the model demonstrated good reliability (α=.81-.91; ω=.84-.96; see Table 4.4). Bi-variate associations between scale items and factors were reported in an inter-correlation matrix. The correlations demonstrated moderate and high positive associations between scale items and factors (*r*=.432-.930), with the highest associations between items that correspond to the same factor and lower associations between items from different factors.

Table 4.4 Reliability, Item Mean Score, and Inter-Correlation Matrix of aHLS Items and Factors

		Omega	Alpha	Item Mean Score	1	2	3	4	5	6	7	8	9	10
1	aHLS Item 1 (The taking of land)			3.45	1.00									
2	aHLS Item 2 (Fewer and fewer people using our traditional language)			3.41	.738	1.00								
3	aHLS Item 3 (Destruction of our culture and traditional spiritual ways)			3.38	.650	.609	1.00							
4	aHLS Item 4 (Loss of respect for elder by our children and grandchildren)			3.06	.464	.505	.500	1.00						
5	aHLS Item 5 (Loss of respect by our children for traditional ways)			3.13	.432	.506	.519	.827	1.00					
6	aHLS Item 7 (Destruction or damage of traditional foods)			3.37	.612	.603	.846	.469	.478	1.00				
7	Factor 01: Loss of culture	.84	.84		.930	.934	.675	.520	.504	.651	1.00			
8	Factor 02: Intergenerational loss	.91	.91		.656	.630	.958	.504	.518	.963	.690	1.00		
9	Factor 03: Destruction or damage	.90	.90		.469	.528	.533	.957	.955	.496	.535	.534	1.00	
10	aHLS Summed Score	.96	.80		.799	.816	.840	.789	.787	.817	.866	.862	.825	.1.00

Note. All inter-factor and inter-scale correlations were statistically significant at the $p < .01$ level. McDonald's omega and standardized Cronbach's alpha were based on the 6 items of the HLS. Correlations were based on the mean of the three factors and the hierarchical factor of the HLS.

Table 4.5 reports on an inter-correlation matrix which illustrates the relationships between aHLS, and the scales chosen to demonstrate validity. None of the scales demonstrated predictive or discriminant validity as they were not highly correlated with aHLS (r=.139-.114).

Table 4.5 Inter-Correlation Matrix of Scales to Examine Validity

	Omega	Alpha	Scale	1	2	3	4	5	6	7
1			aHLS	1.00						
2	.83	.83	CESD	.062	1.00					
3	.76	.75	PWI	-.139*	-.582**	1.00				
4	.86	.84	HTE	.114	.038	-.018	1.00			

5	.77	.77	MED (gender)	.132	.195**	-.117	.432**	1.00	
6	.82	.82	MED (race)	.052	.093	-.051	.498**	.740**	1.00	
7	.88	.88	Discrimination (gender and race)	.142*	.188**	-.104	.474**	.974**	.826**	1.00

Note. ** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

Discussion

Summary/Interpretation

This study sought to validate the use of the adapted HLS Scale with a sample of Wāhine, residing in rural and urban Hawai‘i using factor analysis to assess the psychometric properties of a seven-item three-factor model tested by Antonio and colleagues (in-progress). Using CFA, the model did not fit the current sample as well as the sample from the Antonio et al study. However, when dropping one item, the three-factor model demonstrated good fit among CFI and SRMR coefficients, but poor fit among the RMSEA coefficient. As a rule of thumb, the RMSEA coefficient holds a higher value than the CFI and SRMR coefficients. In essence, the RMSEA value is accepted regardless of CFI and SRMR acceptable values. However, in smaller sample sizes, RMSEA is oversensitive in rejecting true population models (Byrne, 2012; Hu & Bentler, 1999; Kyriazos, 2018). With that said, although the three-factor model with one dropped item demonstrated poor RMSEA, assessment of item factor loadings determined that it was the best model fit for the current study’s sample. In addition, all goodness of fit statistics improved with this model when compared to the initially conducted CFA models and the one and two-factor EFA models. Participants highly endorsed the HLS scale items and overall scored an average of 3.5 out of 4. Therefore, a greater obtained sample could have increased statistical power and produced more representative results to improve the RMSEA coefficient. Overall, a hierarchical, 3-factor, 6-item model was tested that produced the same results as the non-hierarchical model, therefore it was the accepted model in this study. The model suggests that the factors, cultural loss, intergenerational loss, and destruction, are sub-factors that work together to represent historical losses, a multidimensional construct.

However, assessment of poor convergent and divergent validity with scales measuring clinical depression, discrimination, wellness, and historical traumatic events, suggests that the

accepted model is not in fact measuring what it is intended to measure. There are numerous reasons to describe this finding. One reason could be that the original HLS was developed as a one-factor model with 12 items highly endorsed by a Native American population. Adapting the scale overtime to fit populations such as Native American youth and Kānaka Maoli who reside in Hawaiian Homestead residences has caused a drop in the quantity of items. As seen in this study, the models suggested from the various adapted iterations of HLS were not a model fit among the sample at hand. Perhaps items more specific to Wāhine need to be developed to replace the items dropped from the original scale. For example, the dropped item in the current study's accepted model (distrust, resentment, or fear towards whites) was likely to be less endorsed as colonialism. This could be related to the complexities of power and racial relations in Hawai‘i. To illustrate, the Big Five, the five companies that dominated Hawai‘i's economy in the early to mid 1800's were founded by white missionaries and/or their descendants while Hawai‘i remained a sovereign nation led by a royal family. During this time, the Big Five brought over a plethora of people from various ethnic backgrounds to work for cheap labor on their sugar plantations and assigned different wages based on race ("Report of Elwyn J. Eagen on the Hawaiian Islands", 1940). Among those people were Japanese, Chinese, Puerto Rican, Filipino, and Korean laborers who built communities and settled in Hawai‘i. After the overthrow of Hawai‘i, whites exerted dominance in Hawai‘i, however, through striking, unionizing, and attaining economic and legislative power, other ethnicities rose to power. Scholars have written at length about Asian settlers contributing to and collaborating in the erasure of colonialism and a sovereign Hawaiian Kingdom, as U.S. occupation in Hawai‘i became beneficial to them (Kosasa, 2008; Trask, 2000). Therefore, the item of distrust, resentment, or fear towards whites may not be inclusive of the various ethnicities that maintain power and control over the illegally occupied Hawai‘i. Perhaps, the item could be adapted to capture the traumatic impact of settler colonialism that is inclusive of other ethnicities that occupy power in Hawai‘i through business ownership, seats in government, home ownership, etc. Furthermore, "fearful" may be too strong of a word to describe the racial contention between Kānaka Maoli and whites, and therefore, should not be conflated with distrust and resentment.

In addition, items that assess the impact of privatizing and destructing land for the benefit of non-Hawaiians may accurately capture historical trauma among Wāhine and Kānaka Maoli as items in the aHLS scale that regarded land were highly endorsed by this study's sample

population. Keli‘iholokai and colleagues (2020) described land to be an integral part of Kānaka Maoli health and well-being, therefore, disparities and adversity may stem from the traumatic experiences related to destruction and privatization of land. Moreover, as suggested in Study 2, perceptions of the historical traumatic experiences Wāhine are unique. Many deal with identity crises and varying forms of violence and subjugation because of colonialism and ongoing violence against women of color, especially Indigenous women including Kānaka Maoli. These injustices are coming to the forefront as demonstrated in the Missing and Murdered Indigenous Women (MMIW) movement, which seeks to find justice and solutions for the native women who have gone missing or face violence without true and meaningful help from authorities (Ficklin et al., 2022). MMIW is a manifestation of structural oppression born out of colonialism. The accepted racial and gender inequities enforced and accepted by society as a result of trauma and oppression has led to adverse outcomes and the uninterest in protecting Indigenous women. Inserting items in aHLS to accurately depict experiences such as these may produce a more fitting model.

Another possible reason for the unacceptable fit among previously suggested models of HLS and aHLS is that the response categories in this current study were different from the response categories previously used in other studies. Rather than measuring frequency of thought about historical losses, the level/intensity of impact from historical losses were the response options, which may have influenced the way participants endorsed items. The current response options were chosen to reflect the results from Study 2, which suggests that historical trauma is not historical, but an ongoing violence that impacts Wāhine regardless of how often they think about historical traumatic events. In the original scale and aHLS, respondents rated their frequency of thoughts on a six-point Likert scale, whereas aHLS deployed in the KOOKA survey contained a five-point Likert scale as response choices. Unfortunately, the response choices were not previously tested through other forms of validation like cognitive interviewing and expert review. Attaining such validation could have helped to refine the scale for Wāhine participants and produce a better measurement tool.

Furthermore, it is possible that the scale in this current study is no longer measuring historical trauma. As mentioned, evidence of this inference is demonstrated by the lack of convergent and divergent validity with scales measuring clinical depression, discrimination, wellness, and historical traumatic events. In particular, aHLS and HTE were expected to

converge as they are identical in measuring historical trauma. It is important to highlight that, aside from CES-D (which measures depression), HTE and other scales to test validity through bi-variate associations were not previously validated among Kānaka Maoli samples. HTE was previously adapted by Pokhrel and Herzog (2014), but no studies have validated it through other means. Therefore, the majority of the chosen scales to test validity in this study may also need refinement to represent Wāhine.

Overall, this study supports Gone and colleagues' (2019) inference in their systematic literature review on historical trauma outcomes, which suggests that the construct of historical trauma itself and its use in epidemiological research still requires refinement. In reflection, self-reporting impacts and frequency of thought of historical trauma is an imperfect measure of adversity and inequity among Indigenous peoples. Regardless of how individuals report experiencing historical trauma, structures of power and environmental and political factors influenced by historical traumatic events still create inequitable environments and opportunities for health and well-being. The construct is complex, nuanced, and dynamic and difficult to capture with six or seven items. What's missing from aHLS and HLS are the various levels where historical trauma has impacted Wāhine. Study 2 suggests that multiple levels of violence are contributing factors of historical trauma. Therefore, future studies might explore how to measure this dimensionality and impacts of historical trauma on community, organizational, and political levels.

Implications

The findings of this study point to several implications for public health and considerations for working with Wāhine. First, the individual items in aHLS were highly endorsed by the study sample suggesting that historical trauma remains impactful. While it is difficult to attribute these losses and impacts alone to the current health and social status of Wāhine, these findings suggest there is a need for healing and justice. To illustrate, in Hawai‘i, Kānaka Maoli representation often involves their plea for protection of sacred spaces, natural resources, reclaiming Hawaiian sovereignty, etc. (Fawcett, 2017; Lizzi, n.d.; Patao, 2017; Teba, 2022; The Red Nation, 2022; Wong, 2019). Among Wāhine, news outlets demonstrate that unresolved trauma exists as they often report on Missing and Murdered Native Hawaiian Women and Mahu through various mechanisms of violence (Hulu Lindsey, 2022; McAvoy, 2021). All these issues can be attributed to unresolved historical trauma stemmed from colonialism,

compounded with contemporary traumatic experiences happing to Kānaka Maoli and Wāhine collectively. Strategies to heal and bring justice to Kānaka Maoli, especially Wāhine, include repairing the issues that have happened in the past and being critical to how colonization continues to manifest in today's society. For example, in this study, the item on taking of our land was highly endorsed, suggesting land accessibility is a prevalent issue. The inability to access land because of its expensive monetary value in Hawai‘i has contributed to a housing crisis among Kānaka Maoli. Homeownership opportunities for Kānaka Maoli have always been limited and have decreased due to rapid increases in housing costs and minimal space ("Housing Problems and Needs of Native Hawaiians", n.d.). Increasing Hawaiians' access to land provides a critical cultural space for cultural practices to be perpetuated as well as a means for home ownership. Therefore, "Land Back" is a plausible solution to the historical Great Māhele, which privatized land and caused displacement among Kānaka Maoli who believed in land stewardship, not tenureship (Linnekin, 1987). The "Land Back" initiative is a global movement among Indigenous communities to return land back to Indigenous hands. Health and social programs that give participants short-term access to land through mālama ‘āina (care for land) activities should happen in tandem with upstream solutions to ensure Kānaka Maoli are prioritized in home and land ownership in Hawai‘i.

Furthermore, this study speaks to the need of producing a valid and reliable measurement to assess the factors of health specific to Wāhine as they are important policy and decision-making. Such a measurement could demonstrate the relationship between structures of power that perpetuate historical trauma and individual health, to demystify how structures of power contribute more to health disparities of present-day Wāhine than individual health behaviors. Policy is driven by relationships, stories, and data. To create change through policy, concrete data is needed to communicate to decision makers the urgency for change. Thus, a validated measurement can provide empirical evidence to suggest that strategies to improve Wāhine well-being must move beyond improving individual health behaviors. In addition, it could foster considerations on how to rectify historical trauma and its legacy on racist and sexist policies, and inequitable resource distribution.

Limitations

This study is not without limitations. First, the original HLS was developed for a Native American population based on representative focus groups, which led to a one-factor scale that

retained all 12 proposed items in EFA and CFA testing. This study did not seek to adapt items or develop new items specific to Wāhine and their experiences and definitions of historical trauma. Therefore, an exploratory study with Wāhine-specific items is warranted. Regarding the aHLS scale from the Hawaiian Homestead Survey tested in this study, 50% of the original scale items from the original HLS were dropped or adapted, reduced from an original 12 to six items. As mentioned earlier, it is possible that the retained items may not capture the full extent of historical trauma among the study sample and that items might need to replace the dropped items. Furthermore, while the study met the suggested effect size (5 participants per variable) for factor analysis, a larger sample could have provided favorable results. Lastly, beside HTE, all other scales utilized in the bivariate analyses to determine validity of aHLS among the current study sample were not validated among a Kānaka Maoli sample. Therefore, it is possible that those scales are not measuring what they intend to measure among the current sample, which could influence their relationship with aHLS. Future research might explore those scales among a Kānaka Maoli and a Wāhine only sample.

Conclusion

In conclusion, the findings of this study suggest aHLS should be expanded or adapted to fit the experiences of Wāhine. This finding was identified through both CFA and EFA tests, which produced an unfavorable model fit. A validated scale to assess the impact of historical trauma among Wāhine is pertinent to promote healing and wellness. Future studies might explore measuring historical trauma beyond the individual level to capture how its legacies plague contemporary and external sociopolitical factors on other levels like the community, organizational, policy levels.

CHAPTER 5 DISCUSSION, RECOMMENDATIONS, AND CONCLUSION

Historical trauma, the collective, intergenerational wounding from mass subjugation, has been theorized to unconsciously impact Indigenous peoples, including Kānaka Maoli. Previous research has sought to measure historical trauma as a construct that determines the health of contemporary peoples and validate its use among Indigenous populations. However, only a couple of studies have empirically documented historical trauma among Kānaka Maoli and none among Wahine only. The aim of the present research has been to contextualize and measure historical and intergenerational trauma among Wāhine in an effort to validate a historical trauma scale that reflects and measures their experiences. The central hypothesis for this dissertation proposed that historical trauma among Wāhine is unique, and as such, any scale to measure the construct among this group should be unique as well. Considering all three studies in this mixed-methods dissertation, the results suggest the following: 1) measuring historical trauma has been achieved through several, psychometrically sound scales developed with or informed by Indigenous communities, 2) Wāhine face the brunt of multilevel violence from sexism, racism, and classism both historically and contemporarily that have been traumatic for their kūpuna Wāhine and themselves, and 3) Wāhine endorse an adapted, hierarchal, three-factor HLS model that measures the impact of historical traumatic events.

Study 1 (chapter 2) identified psychometrically validated historical trauma scales that have been employed with Indigenous peoples in Canada, the U.S., and places illegally occupied by the U.S. The various ways that researchers have defined and constructed scales to measure historical trauma have similarities, but still possess differences since historical trauma is nuanced and complex. Therefore, a standardized scale to measure historical trauma across groups may not be beneficial as the differences with mass grief and intergenerational wounding are important to measure for specificity. In addition, many of the scales found in the Study 1 were developed by and/or with Indigenous communities, which may have contributed to their validity among study samples. Ensuring Indigenous communities are at the forefront of scale development should be continued. In addition, validity evidence often alludes to the generalizability of results, however, a decolonial approach in scale development is critical to measure factors of Indigenous health. Therefore, being critical in who results are generalizable for would do less harm than aggregating groups of Indigenous peoples and placing one-size-fits-all solutions upon a very vast and diverse group of people.

Findings from Study 2 (chapter 3) support Haunani-Kay Trasks's theory of double colonization, where Wāhine face both racialized and gendered forms of colonialism and trauma. In this study, it was realized that historical trauma alone did not describe the structural, multilevel violence impacting Wāhine. The study's contemporary sample identified the legacies of colonialism as 'eha or violence that they inherited from their kūpuna through shame of being Hawaiian, cultural degradation, destruction of and displacement from 'āina, sexual violence, etc. Moreover, 'eha at multiple levels illustrated that Wāhine are being attacked from numerous angles and, therefore, strategies to heal historical trauma and promote justice must take a multilevel, multisector, and multidisciplinary approach. Representatives within these levels, sectors, and disciplines should be pono, center Wāhine, and work hard to value Wāhine and Hawaiianness beyond their potential for capital gain and cultural prostitution. More importantly, Wāhine needed to be included in solutions that not only benefit them, but their people, and their 'āina.

In the final study, a psychometric analysis of the aHLS from the Hawaiian Homestead Survey, which measured intensity of impact of historical losses rather than frequency of thought, was completed to test the factor structure among an all Wāhine sample. Results suggested that items from aHLS are still endorsed by Wāhine, aligning with previous research that historical losses are still impactful on contemporary generations. However, a perfect model fit was not attainable, therefore suggesting that aHLS may not be fully capturing Wāhines' historical trauma experiences. This is further supported by qualitative findings of the current research as Wāhine trauma is ongoing and based on violent historical and contemporary experiences at the intersection of their gender, class, and racial identities. Inherited 'eha still persists as an oppressive factor among Wāhine. Furthermore, the violence or 'eha is experienced at various levels in society that are beyond individual control. Nevertheless, this psychometric study is evident that numerating experiences that contribute to health is possible among a Wāhine population, and therefore, contextualizing violence and/or historical trauma with statistical information for decision makers is possible. However, a multidimensional, intersectional scale that measures Wāhine experience of 'eha and at various levels may be a better model for Wāhine that will foster more understanding of their experience with adversity. **Such a scale should be developed for Wāhine by Wāhine** with a purpose to heal and seek justice for Hawai'i and Kānaka Maoli as a whole.

Implications for Policy and Practice

Based on these findings, justice is urgently needed among Wāhine. Empirical evidence collected with valid and reliable measurements has the ability to convey the severity of addressing violence inherited from colonialism and ongoing adversities. In addition, revealing the manifestations of historical trauma places kuleana (responsibility) on institutions that conciously and unconciously perpetuate historical trauma and violence in policies, practices, and protocols. For example, many Wāhine in the current research shared about their experience of sexual violence and some identified being failed by the justice system when speaking up. Rather than secondary and tertiary support for victims, prevention efforts influenced by a critical lens on the incongruencies of the justice system, rather than the victim, is needed for safety and protection of Wāhine.

In addition, public health practitioners might look outside their discipline to the work of Dr. Haunani-Kay Trask. In her publications, teachings, and advocacy, Dr. Trask centered the adverse experiences of Wāhine in the militarism and prostitution of Hawai‘i and Hawaiian culture, alluding to the occupation and ongoing trauma of Hawai‘i uniquely impacting Wāhine. She and many others have tirelessly fought for justice among Kānaka Maoli, suggesting the reclaimation of lands held in trust by the State of Hawai‘i. Thinking of solutions that may seem outside of public health program and policy to solutions like land back, as Dr. Trask suggested, would be beneficial for Wāhine. Another example is having validated and reliable data to support agencies, like the Office of Hawaiian Affairs and the Hawai‘i State Commission on the Status of Women, who recently convened a task force to identify the causes of Missing and Murdered Native Hawaiian Women and Mahu. While historical trauma data alone cannot drive policy change, its supportive evidence may demonstrate that the trafficking violence disproportionately impacting Wāhine is not new nor singular, but a cumulation of unhealed trauma and ongoing violence stemming from colonialism and uneven power distribution in the State of Hawai’i.

Future Directions

Ua hānau ka Pō. Can that divine mana that Pō bestowed upon Wāhine be rebirth? Can it be reactivated and (re)respected? Reimagining a world where Wāhine are respected and upheld is a commitment to untangling hihia (issues) inherited from colonialism. This can be done in future research that continues to refine the definition of ‘eha found in this dissertation study to

build out Wāhine-centered, pono solutions to historical trauma, inequity, and injustice. In doing so, a more robust scale, reflecting the various levels of ‘eha, could be developed which will communicate the ongoing urgency of reparations and reconciliation for Wāhine and their Lāhui. ‘Eha, then, could be considered an indicator of human right’s violations among the United Nations, and a measurement scale has the ability to demonstrate quantitatively, on the global stage, the lack of attention on the protection and promotion of well-being of Wāhine.

Furthermore, the future scale, inclusive of experiences with double colonization, should still be psychometrically validated and co-developed with Wāhine. This recommendation is not alluding to gender-specific items, but it does point to Wāhine-specific notions of ‘eha. In addition, other processes to validate a new scale should be taken. For example, the factor structure should be tested to compare differences across genders. A valid scale, would demonstrate differences and accurately measure the unique experiences of Wāhine. In addition, the scale could go through a process of cognitive interviewing to gain feedback from respondents on what they think the scales are asking. Lastly, a valid scale should be used to explore associated outcomes. Strong associations between factors at varying levels of ‘eha and outcomes can help pinpoint where resources should be heavily allocated.

Public health researchers play a vital role by providing rigorously collected, statistical evidence that support policy change. Public health is unique as it interacts and collaboratively works with multiple disciplines, and therefore, boasts the foundations to drive change and justice with data. As Gone (2019) has suggested, the aim for collecting historical trauma data should move beyond healing and center justice. In essence, while the resilience of Wāhine has assured the survival of the Lāhui (Hawaiian nation), promoting it alone cannot address the structural ‘eha that contribute to inequity and poor health. Furthermore, requesting individuals to transform trauma through individual behavior is not enough. Solutions that demand justice for Wāhine and Kānaka Maoli should be prioritized and historical trauma research provides numerical evidence for such initiatives.

In the beginning of the current dissertation research, historical trauma was defined as kaumaha in ‘ōlelo Hawai‘i. However, kaumaha, loosely translated as heaviness, grief, weight, was not described in the studies. Instead, ‘eha permeated. ‘Eha, loosely translated as hurt and suffering or to hurt and cause suffering/inflict pain, was utilized to describe the violence surrounding, compounding, and wounding Wahine across generations. While this research

suggests a robust scale to measure the multi-layered violence, it also recommends to document Wāhine solutions of ea (sovereignty, independence) beyond its typical notion of power of State. As Jamaica Osorio, Haunani-Kay Trask, Noe Goodyear-Kaʻōpua and others allude to, there is a legacy of scholars, many Wāhine, who have challenged movements to realign with ea through the liberation of all from patriachal violence that has led to ongoing injustice and inequities (Goodyear-Kaʻōpua, N., Hussey, I., & Wright, E. K., 2014; Osorio, n.d.; Trask, 1999). Reimagining ea, freedom, healing, and justice by centering the liberation of Wāhine, their bodies, their ʻāina, and their ʻohana and overturning ʻeha must include the visions of safety and protection of Wāhine.

I ka wā mamua, i ka wā ma hope. The future is secured by the past. Wāhine must be revered for their mana once again and solutions to overturn ʻeha can be informed from wā kāhiko (ancient times) and reimagined to fit the needs of contemporary Wāhine, Kānaka Maoli, and all Indigenous peoples. Wā kāhiko (ancient times) teaches us important lessons and values on aloha ʻāina, ʻohana, and ea, and Kānaka Maoli have already taken strides to heal by leading with these values. The findings from this dissertation are not surprising, but a reality that healing and justice-seeking efforts from Kānaka Maoli cannot happen alone as structural violence works in contention, perpetuating colonialism for contemporary members. Instead of Hawaiian culture, Hawaiʻi, and Wāhine being prized for exoticism and capital gain of others, they should be prized for their value, their survival, their mana, their existance, and their birth right to Hawaiʻi. That is ea. Ea is justice. Noelani Goodyear-Kaʻōpua describes ea through the Kumulipo (Hawaiian creation chant). “Ea mai Hawaiinuiakea / ea mai loko mai o ka po.” The islands emerge from the depths, from the darkness that precedes their birth. Like volcanic islands emerging from the depths of the ocean, so does ea, and so will Wāhine from ʻeha. Kāmau e na Wāhine (Wāhine shall presevere)!

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