Cultivating Wellness Through Cultural Dance in Native Hawaiian and Other Pacific Islander Older Adult Communities

Introduction

- Lower fertility and increased longevity have led to the rapid growth of the older population across the world and in the United States (US Census Bureau 2019).
- Hawaii, like the rest of the United States, has seen significant growth in its 65-and-older population since 2010.
- Hawaii's kupuna (older adults) have grown by 37.6% since April 1, 2010, with an average growth rate of 3.5% annually (Hawaii Census, 2019).
- With the increase of our kupuna, will also come an increase in levels of physical disabilities, cognitive disabilities, and long-term care services. Dance, can be effective in maintaining the functionality and autonomy of the elderly, as well as in psychoemotional health through self-awareness and stabilization of cognitive functions (Kshtriya, et. Al., 2015).
- Cultural dance, such as hula, the traditional dance of Native Hawaiians, and Siva, the traditional dance of Samoa, can be considered culturally relevant forms of physical activity for Native Hawaiian and other Pacific Islanders. Hula has been shown to improve not only physical activity but high blood pressure among Native Hawaiian and other Pacific Islanders (Kaholokula, 2015).
- Native Hawaiians and Samoans have the shortest life expectancies of the state of Hawai'i's seven major ethnic groups (Braun et al., 2015).
- NHOPIs have a higher prevalence of hypertension, obesity, diabetes, and dyslipidemia than other US racial/ethnic groups, increasing the likelihood of Alzheimer's disease and related Dementia (ADRD) (Braun et al., 2015).
- When working with Native Hawaiian and Other Pacific Islander (NHOPI) older adults, incorporating cultural values can have a significant effect on beliefs about health and well-being (Braun et al., 2015).
- By incorporating cultural dance with NHOPI older adults, we can understand how it affects their physical, cognitive, and social-emotional well-being.
- Using hula as an intervention can improve cognitive functioning and neuroimaging parameters, while reducing vascular risk factors (Iseri, 2021).



Objective

Understand the potential impact that cultural dance has on Native Hawaiian and Other Pacific Islander Older Adults' physical, cognitive, and social-emotional well-being.

Methodology

- Though studies on dance and its effects on older adults have been conducted in various countries, the method in which data was collected has differed in each study.
- In studies that looked at the physical well-being of older adults being impacted by dance, there were various methods used to collect data. Two studies used creative dance and one used aerobic dance as their intervention method. The time period used to measure the dance intervention varied from each study. Though all three studies had various sample sizes, inclusion criteria, dance techniques, and measurement periods, all showed improvements in physical well-being.
- Dance techniques used in studies that measured social-emotional well-being included creative dancing, aerobic dance, social dancing, and cultural dancing. The qualitative study conducted in Czechoslovakia found that social dancing can enhance physical activity, promote playful atmosphere and social-emotional well-being, and reconnect older adults with memories from their youth and history (Roberson & Pelclova, 2013).
- The study completed by Dr. Kaholokula, regarding hula and hypertension management for the NHOPI population was most informative. Hula dancing was used as an intervention method for a sample size of 110 NHOPI. Participants attended hula class for sixty minutes, twice a week, over the course of twelve weeks. The results were lowered systolic blood pressure and improvements in bodily pain along with social functioning (Kaholokula et al, 2015).

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Summary of Research Methodologies								
Studies	Joung et. al (Korea)	Cruz-Ferreia et. al (Portugal)	Hopkins (USA)	Zhu et. al (China)	Cavalcant et.al (Brazil)	Hui et. al (Hong Kong)	Roberson et. al (Czech)	Kaholokula et. al (Hawaii)
Sample size	41	57	53	60	47	111	76	110
Target Population	Older Adults (65-80)	Older Women (65-80)	Sedentary Older Women (57-77)	Elderly with Mild CogDev. 70yo/mean	Elderly Women	Older Adults (60-75)	Older Adults/ Social Dancing (Sen. Ctr/Hm)	N.H with hypertension
Measuremen t Period	8 weeks 90min/2xwk	3 week/24 weeks	50min/1xwk 12 weeks	35min/3xwk 3 months		23 ses./ 12 wk	3 sites over 3 years	60min/2xwk 12 weeks
Quant/Qual. ?	Quant.	Quant.	Quant.	Quant.	Qual.	Qual.	Qual.	Quant.
Effectiveness	Physical Improvement.	Physical Improvement	Physical Improvement	Improved Cognitive Functioning	Improved Social Emotional Well-being	Improved S.E. well- being	Improved S.E. well- being	Physical & S.E. Improvement.

Results

Dance and physical health

- In a study done in Korea, results showed improvement in lower-limb strength and flexibility, improvement in upper-limb strength and flexibility, enhanced functional balance, and enhanced mobility (Joung, H., Lee, Y., 2019).
- In a study done by Cruz-Ferreira et al., showed improved strength, aerobic endurance, flexibility, and motor agility/dynamic balance of those who participated compared to those who did not participate in dance.
- Hopkins et al. (1990) studied a group of sedentary older women and found that dancing improved cardiorespiratory endurance, balance, lower limbs strength and endurance, body agility and flexibility, and decreased body fat.
- In a study conducted in 2019, hula lowered systolic blood pressure over a sixmonth period (Kaholokula, 2015).

Dance and cognitive well-being

- Dancing activates a large array of brain networks. Dancing as a neurocognitive experience activates multiple cognitive functions such as perception, emotion, executive function (decision-making), memory, and motor skills (Foster P., 2013).
- In a study of adults with mild cognitive impairment research showed that moderate intensity exercise is associated with a decreased risk of cognitive development. Dancing is associated with improved cognitive function in the elderly with mild cognitive development (Zhu Y. et al., 2018).

Dance and social-emotional well-being

- Loneliness is a significant risk factor in the emergence of mental and physical health problems among older adults (Hawkley LC et al, 2007).
- Those who participated in dancing groups had a better perception of themselves and their potential, felt more expressive, active, and interested in everyday tasks (Cavalcante et al., 2018).
- In a study of older adults participating in a dance group in Hong Kong, a noted benefit was attributed to the social network and friendships developed while dancing in a group. Older adults being able to care for their peers and the support and encouragement given to each other resulted in positive cognitive effects. Dancing enhanced and widened the social life of older adults, thus improving their quality of life (Hui et al, 2008).



- existent.
- interventions.
- spiritual, and social well-being.



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Conclusion

• Studies show that dance has has seen to improve physical, cognitive, and social-

• There is a significant gap in research for the NHOPI older adults and culturally relevant dance. While researching, minimal studies have been conducted on hula dancing, one of which is ongoing through the University of Hawaii at Manoa. • Though dancing as a cultural practice has been practiced in indigenous Pacific communities for generations, the research on its use and benefits is almost non-

• More research is needed regarding the benefits of cultural dance among older adults, specifically in the NHOPI population with more cultural based

• Such research can help with the overall health and well-being of the NHOPI older adult population by linking them to their cultural, physical, familial, cognitive,

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