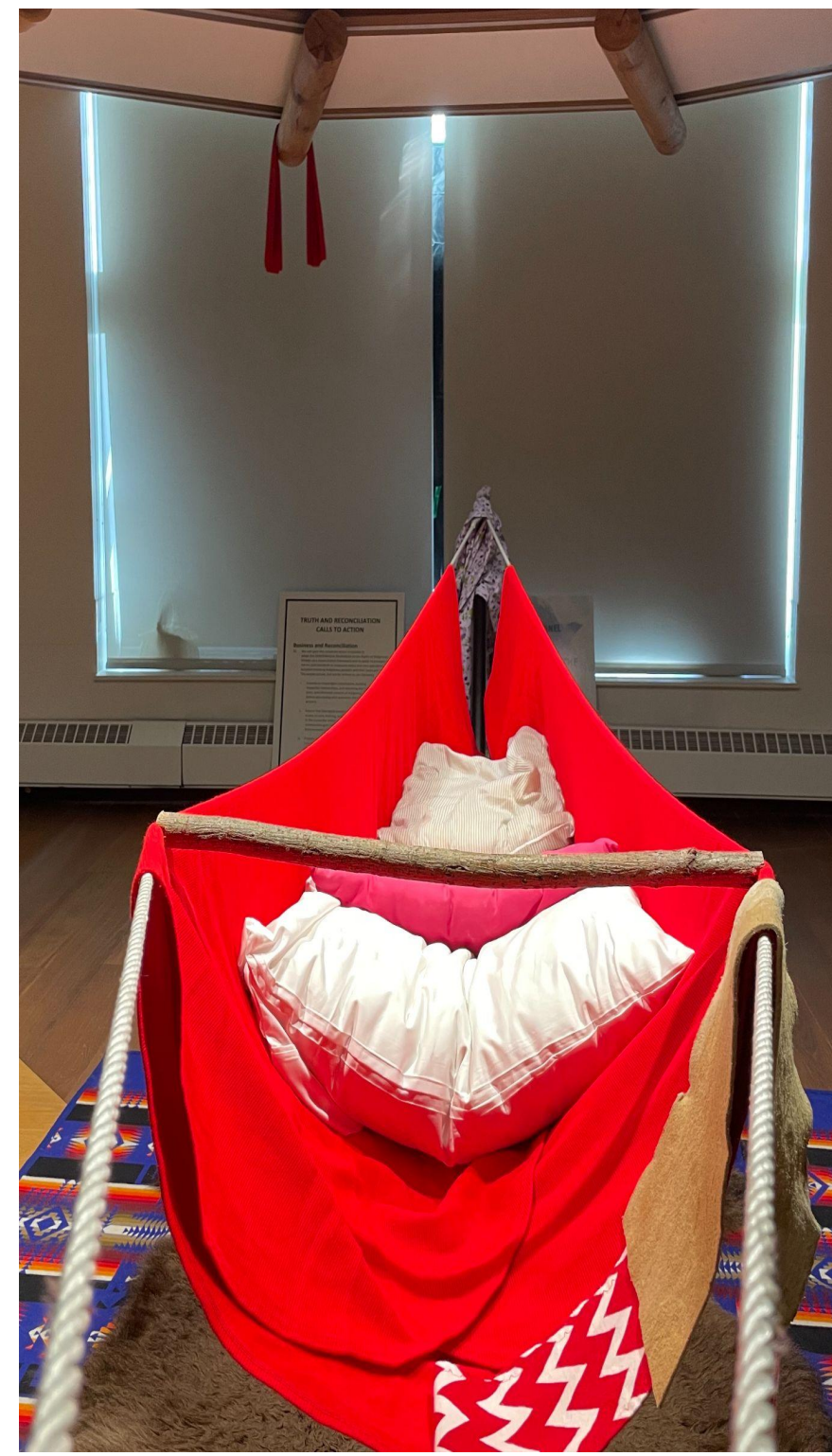


INTRODUCTION

THE STORY:

The gentle rocking of a baby's swing, this motion is known to the Nehiyaw people to induce sleep. During a pipe ceremony in 2001, Darlene Auger experienced a vision where she was shown a large hammock like swing with an adult in it wrapped like a baby and was told by a spirit grandmother that "people need to be swung" in her native language (Nehiyawewin). In 2017, Darlene completed her doctorate dissertation entitled, DECOLONIZING THE ACQUISITION OF KNOWLEDGE: Exploring VISION as a method for acquiring knowledge by examining the 'Vision of Wepison' and the well-being it has bestowed upon community. This research analyzed over 100 testimonies of people who reported experiencing healing in the swing.

Darlene was interested in exploring what was happening in the brains of people while being swung. With this research project the team sought to characterize the brain and body response to ceremony and the experience of Wiwip'son, the healing swing. The team utilized a combination of western and traditional ways of knowing and drew data from both quantitative and qualitative sources to attempt to answer the question of what happens to a person's arousal state as told by their heart, breath and brain when they experience the swing.



METHODS

Technology:

- MUSE S headband and Mindmonitor application were utilized to record electroencephalography (EEG), Hexoskin shirts were used to record electrocardiogram (ECG) and breathing variables
- Both Hexoskin and MUSE record acceleration of the swing via indwelling accelerometers within the devices

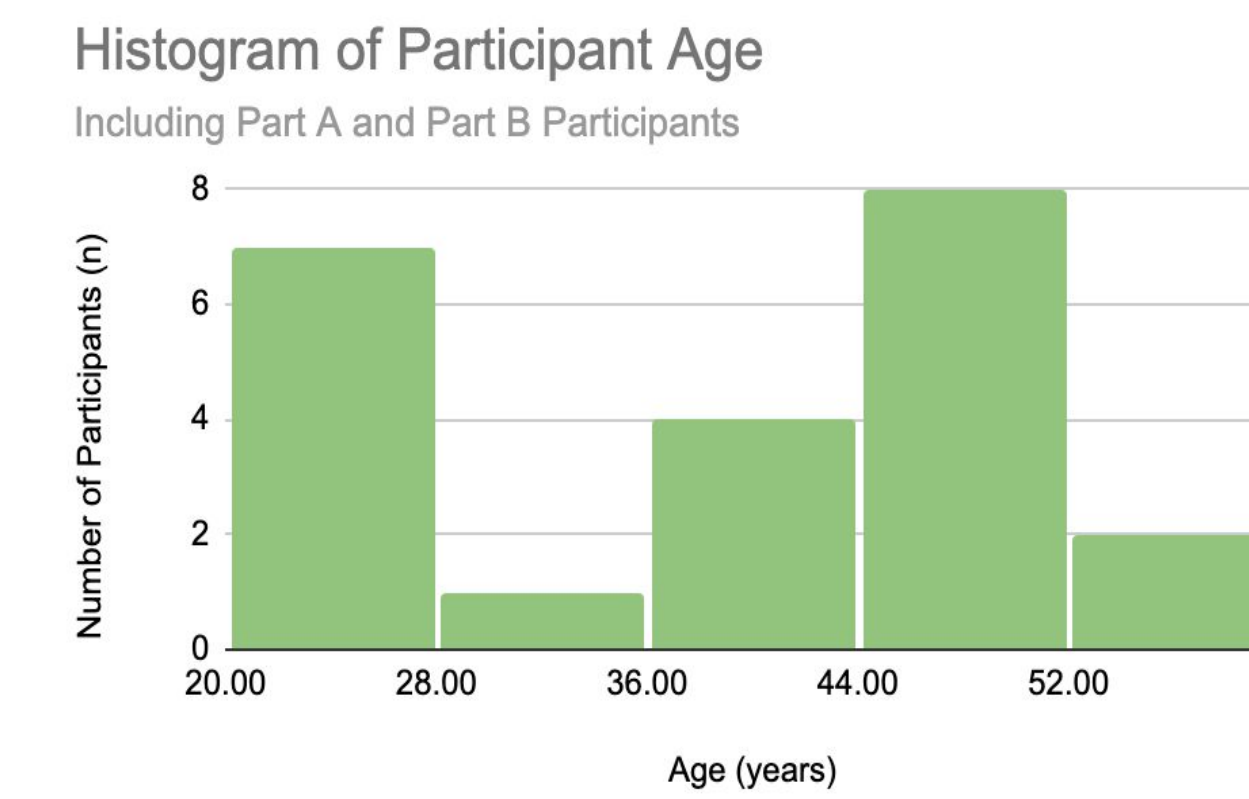
Study Design:

- 14 naive participants participating in 2 swing sessions, 8 additional participants experiencing 1 healing swing session (included only in qualitative analysis at this time)
- 1 control session with only swing movement and one healing session where participants experienced the swing and the full healing session
- Post participation interviews and follow up interviews about experience
- Post participation Visual Analogue Scale (VAS) for alertness performed
- Pre-participation Pittsburgh Sleep Quality Index (PSQI) questionnaires collected
- Random order and blinded analysis of quantitative data

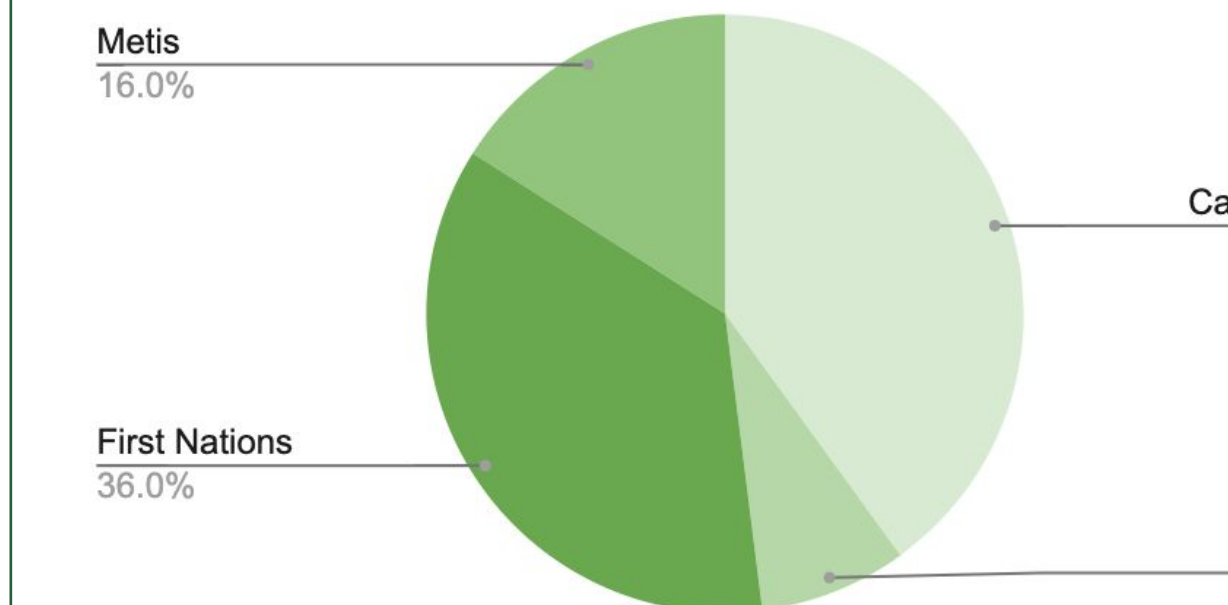
DEMOGRAPHICS

AGE:

Bimodal distribution of participants with a peak in the 20-28 age group and another in the 44-52 age group
Mean: 39 +/- 11.8



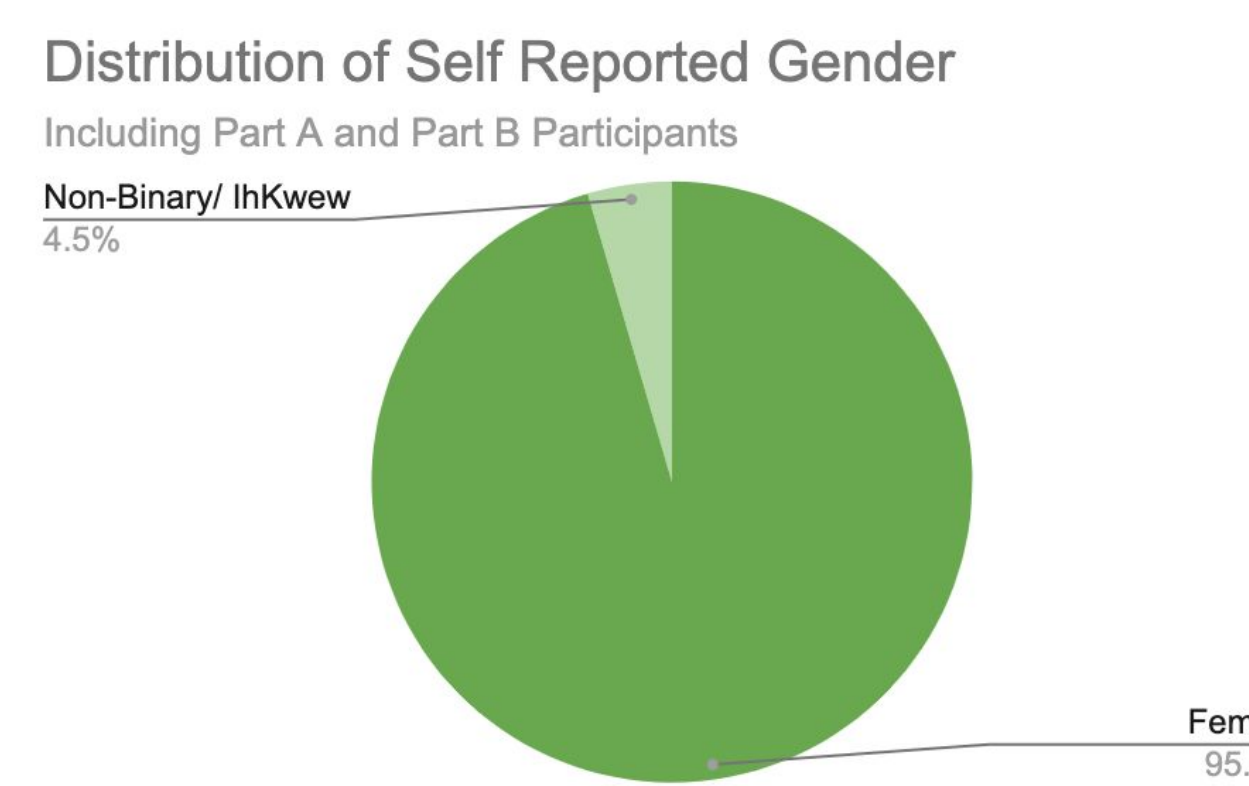
Distribution of Self Reported Race/Ethnicity



SELF-REPORTED RACE/ETHNICITY: Participants were able to self-identify as multiple ethnicities. 40% of participants identified as Caucasian, 52% of participants identified as Metis or First Nations, 8% of participants identified as Asian

SELF-REPORTED GENDER:

The study was conducted with participants who self identified as female with one individual identifying as non-binary.



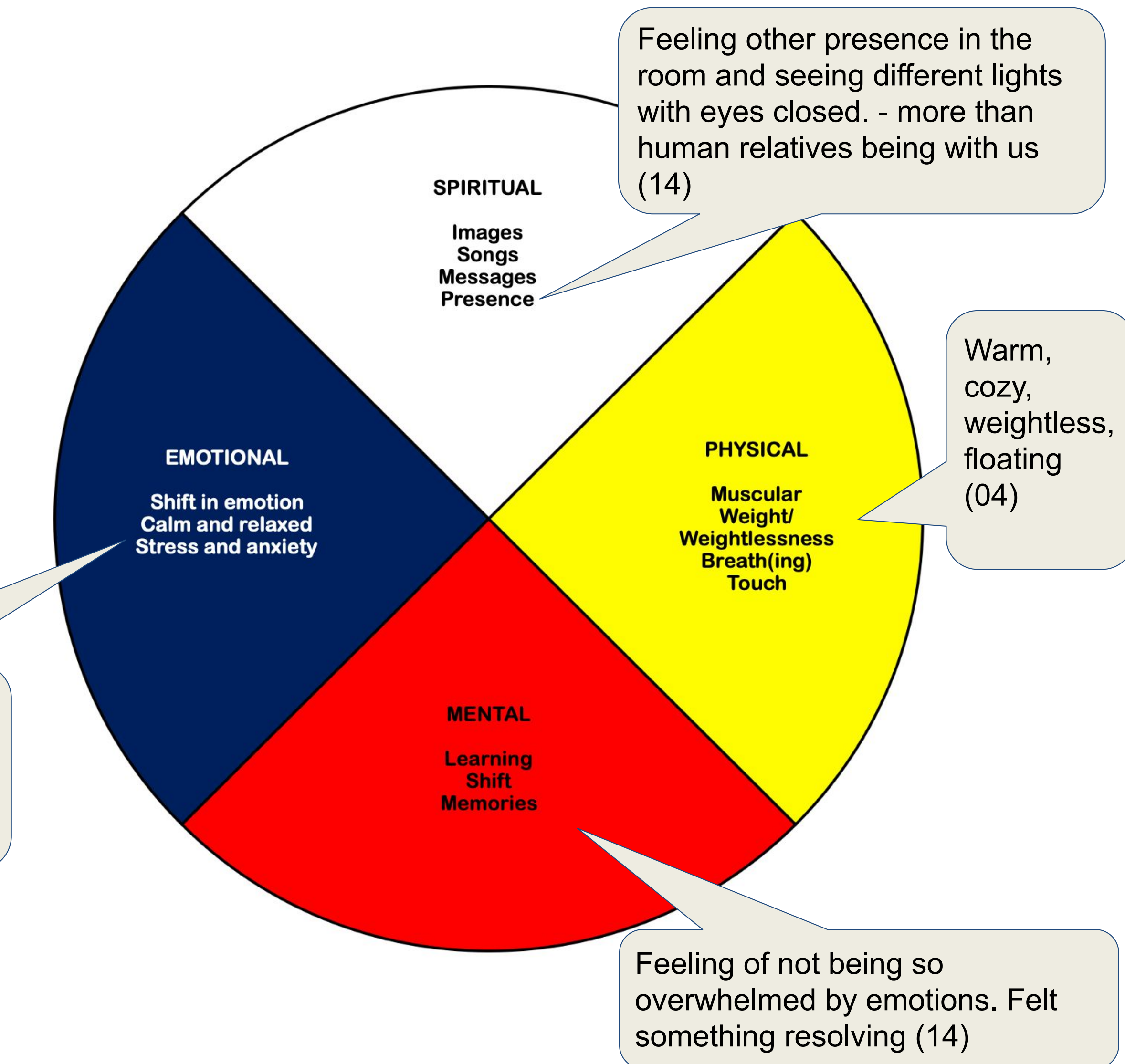
QUALITATIVE FINDINGS

Data Collection and Import: Research Assistant collected interview notes during sessions, which were then imported into NVIVO for thematic analysis.

Initial Coding Framework: Principal Investigator, Project Coordinator, and Research Assistant collaboratively reviewed notes from participants' interviews to establish an initial coding framework. This framework was based on interview questions and participants' responses. "Calm, relaxing, or peaceful" was added later as a code based on recurring participant expressions.

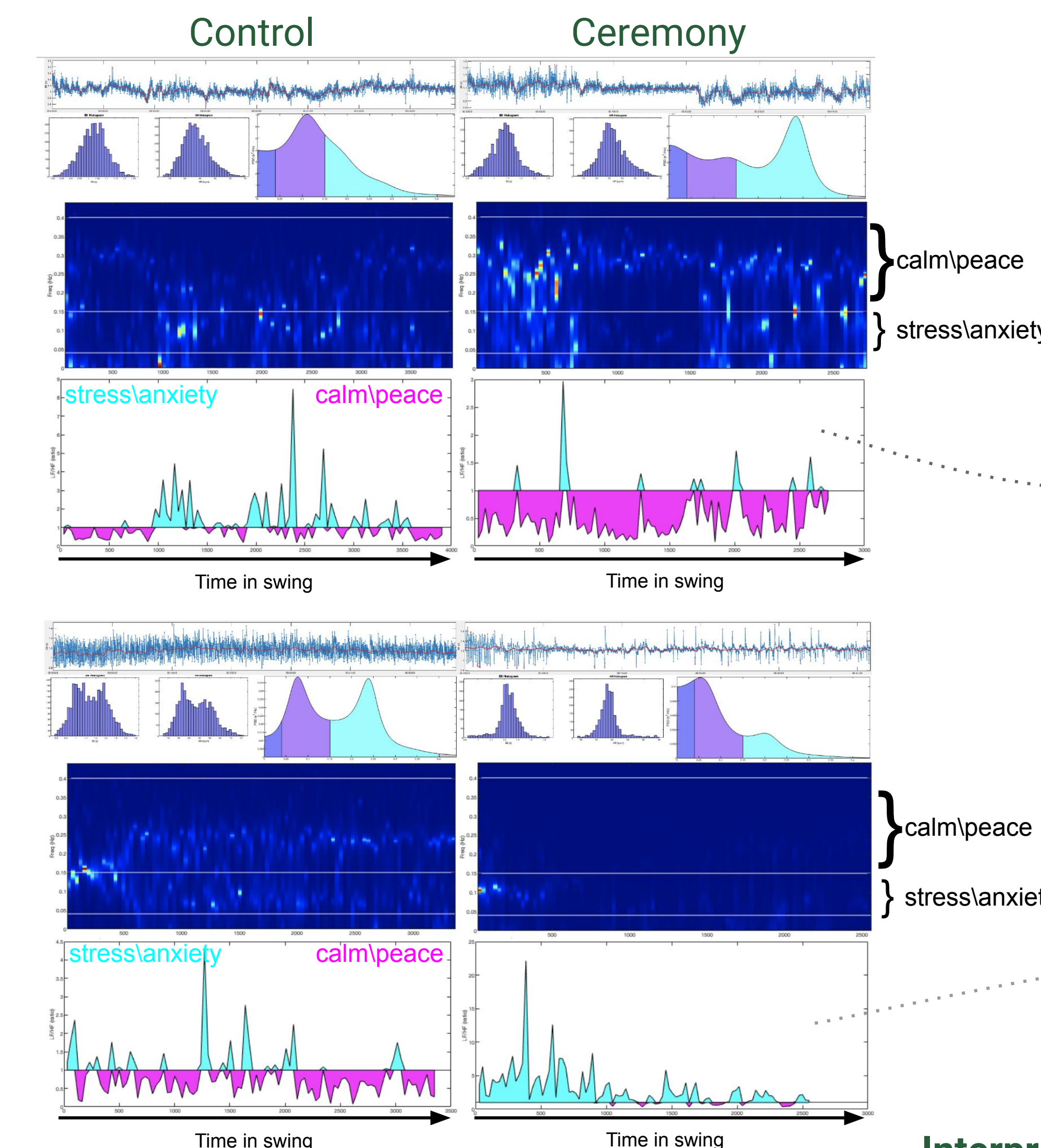
Emergent Themes: Patterns emerged as participants shared their physical, sensory, and emotional experiences. Their recollections were categorized into four overarching themes, each further divided into subthemes.

Grounded, peaceful, protected, calm, cared for (09)
How it feels to be touched by a mom- tuck in. Felt like I was a child (17)



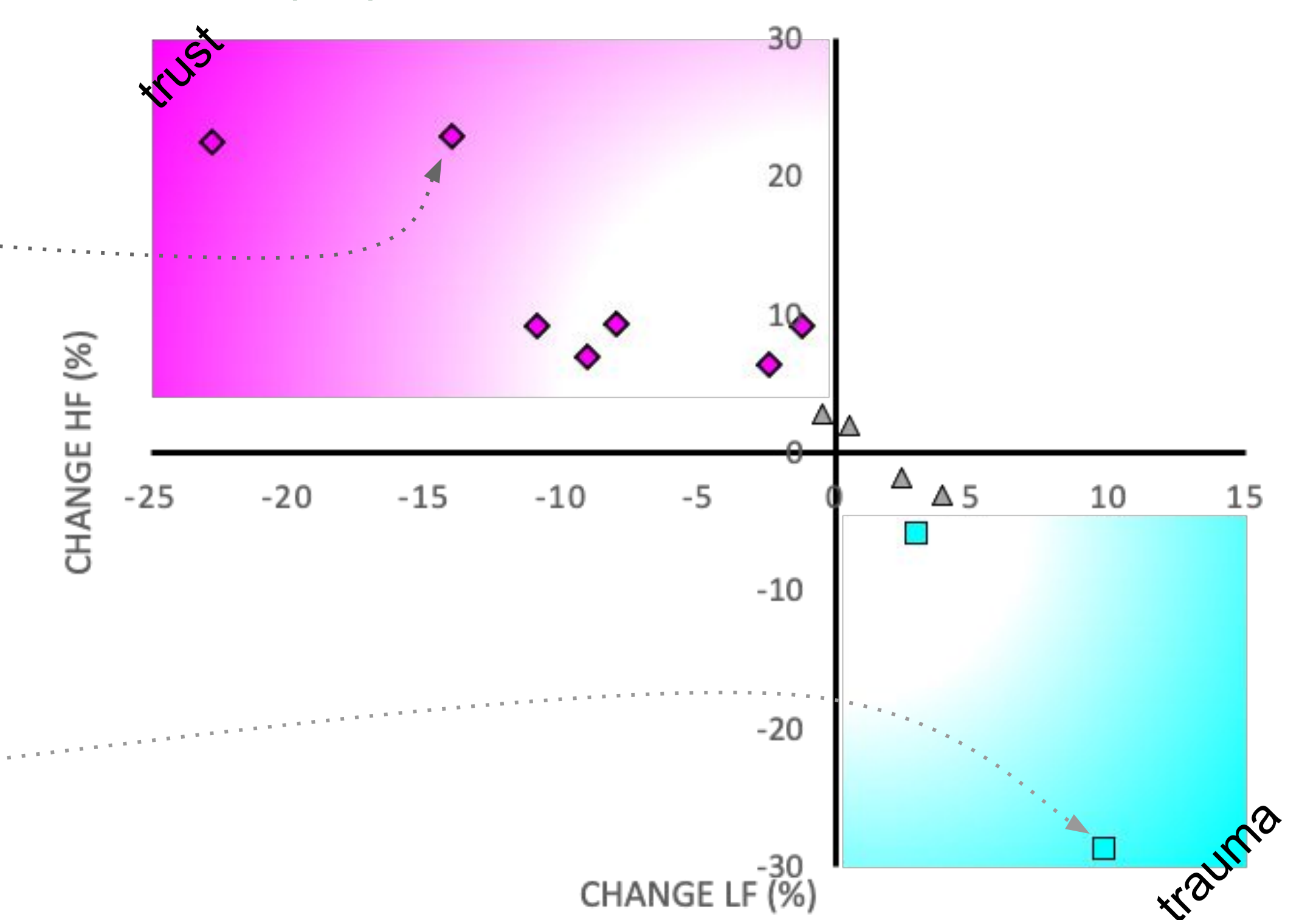
QUANTITATIVE FINDINGS

Individual Data



Group Data

- 7 people calmer during ceremony
- 4 people similar
- 2 people stressed or anxious



Interpretation

A Wiwip'son healing swing session with ceremony facilitates a brain-body state consistent with calmness and reduced anxiety - in most people. This state is consistent with changes expected as people recover from traumatic stressors and experience Physical, Mental, Emotional and Spiritual healing.