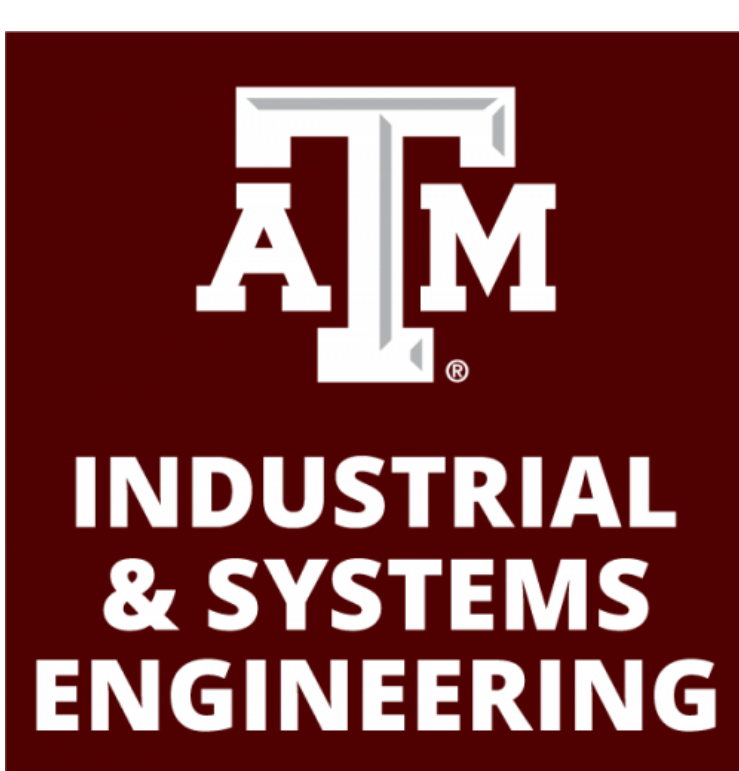


Drowsy Driving Among Shift Work Nurses: A Qualitative Data Analysis

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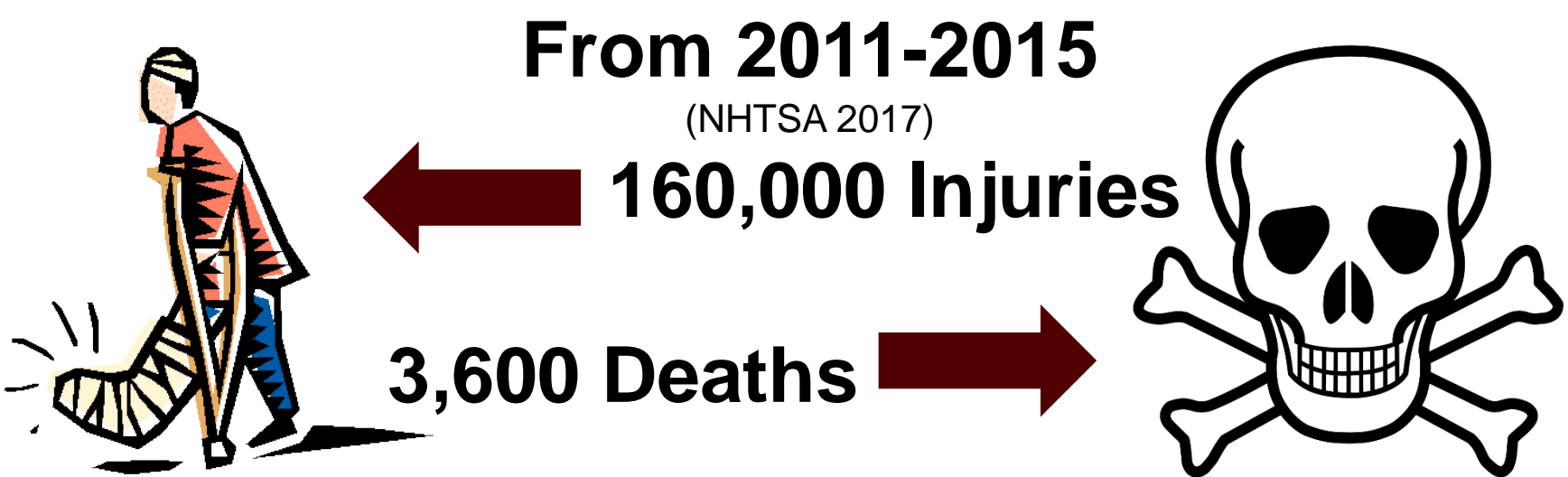
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1. BACKGROUND

The Problem of Drowsy Driving

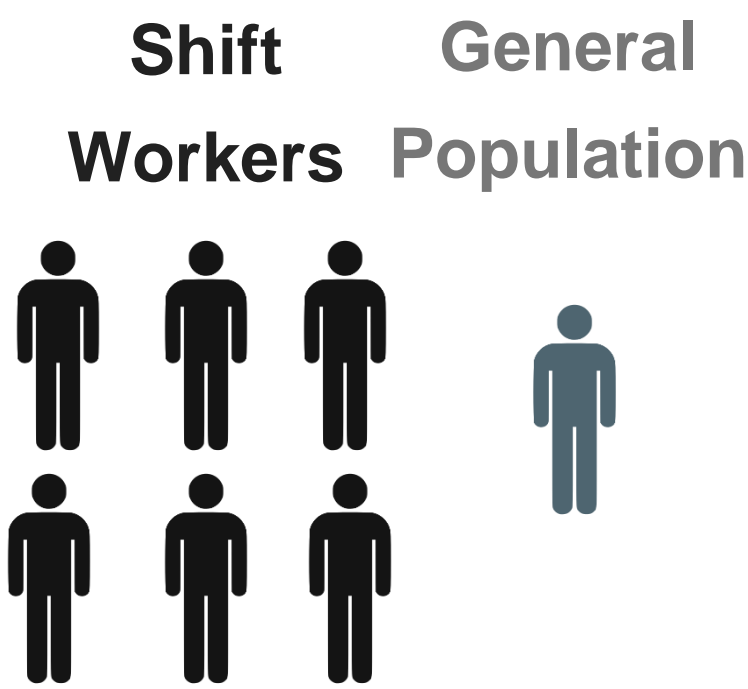
- Drowsy driving is a serious problem that results in severe outcomes.



- 60% of US drivers have driven drowsy and 37% have fallen asleep at the wheel (National Sleep Foundation, 2018)

Shift Workers and Drowsy Driving

- Shift workers are 6 times more likely to be involved in a drowsiness-related crash than non-shift workers (National Sleep Foundation, 2009)



Nurses and Drowsy Driving

- 79% of night shift nurses have driven drowsy after their shift (Scott et al., 2007).
- Night shift nurses have a higher chance of being involved in a drowsiness related crash than other nurses (Gold et al., 1992).

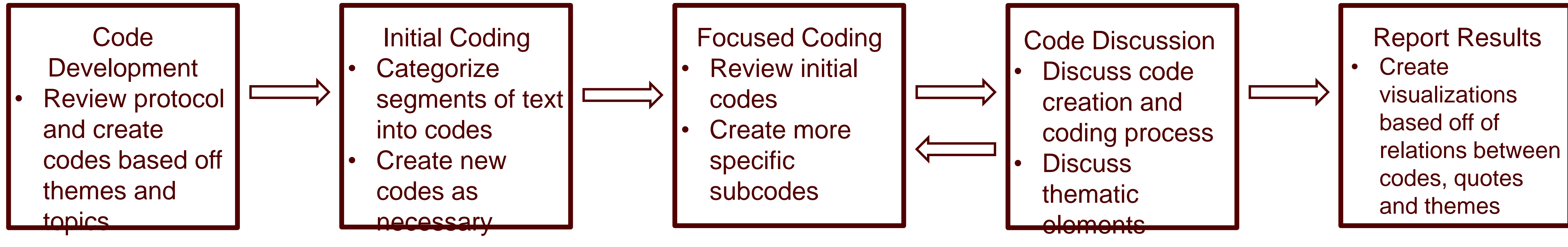
Critical Need: Understand night shift nurses experiences of drowsy driving and opportunities for mitigating its occurrence

2. DATA COLLECTION

Interviews with Night Shift Nurses

- 30 night shift nurses were recruited from a large teaching hospital in South Texas
- Age: M = 36.1; STD = 11.27; Range = 22-64
- 1-20+ years of experience
- 9 different areas including ICU, CCU, IMU, Surgery
- Interviews were transcribed and validated.

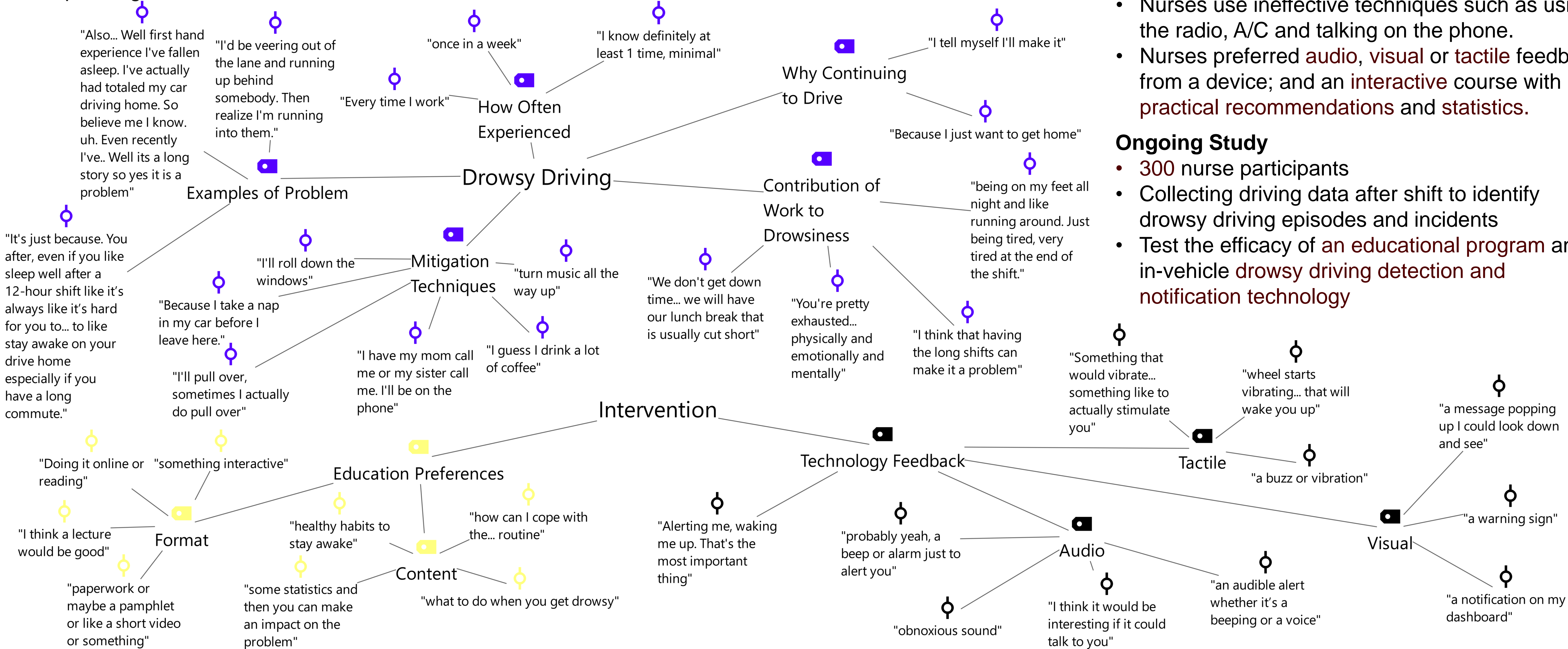
3. INTERVIEW ANALYSIS



MaxQDA 12 was used for the coding

4. RESULTS

The visualization represents two major themes: Nurses' experience of drowsy driving (top) and nurses' preferences for mitigation techniques (bottom). Quotes from participants are presented below, attached to their corresponding code.



5. IMPLICATIONS & WORK IN PROGRESS

- Limited support despite high rate of drowsy driving among night-shift nurses
- Nurses use ineffective techniques such as using the radio, A/C and talking on the phone.
- Nurses preferred **audio, visual or tactile** feedback from a device; and an **interactive** course with **practical recommendations and statistics**.

Ongoing Study

- 300 nurse participants
- Collecting driving data after shift to identify drowsy driving episodes and incidents
- Test the efficacy of an **educational program** and in-vehicle **drowsy driving detection and notification technology**