Latent Classes of Traumatic Events and Patterns of Class Transition Across the Life Course in Black Women

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Over 70% of adults have experienced at least one traumatic event in their lives (Kessler et al., 2017).

Traumatic events can range from sexual and physical abuse to emotional mistreatment and significant losses

These events rarely occur in isolation and tend to cluster, leading to cumulative effects on health (Briere & Elliott, 2003)

Early life traumas are linked to long-term health issues, including mental health disorders and chronic conditions such as uterine fibroids (Boynton-Jarrett et al., 2011; Harris et al., 2018).

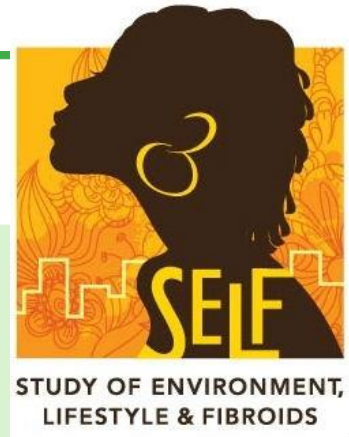
Black women are more vulnerable to traumatic events across their lifespan due to structural racism and related socioeconomic inequities.

Primary Goals:

- Identify latent classes of traumatic events experienced by Black women at different life stages (childhood, teenage years, adulthood) and
- Analyze the transitions between these classes over time.

Why? Understanding the patterns and transitions of traumatic experiences is crucial for developing targeted interventions that address the unique vulnerabilities of Black women, ultimately improving their long-term health outcomes.

Methods



Study Design and Population:

Prospective study of 1,290 Black women from the Detroit Metropolitan area.

Median age is 34.3 years and most completed at least some college.

Data Collection:

Twelve traumatic events experienced at three life stages: childhood, teen years, and adulthood were assessed at third follow-up period using computer-assisted web-based interview.

Analysis:

Latent class analysis identified subgroups of traumatic events at each life stage, and latent transition analysis (LTA) investigated transitions between the subgroups over time.

Results

The fit indices (AIC, BIC, ABIC, LMR, BLRT) supported **four** latent classes at each life stage:

- Sexual Trauma
- Non-Sexual Trauma
- High Trauma
- Low Trauma.

	Childhood n (%)	Teen n (%)	Adult n (%)
Class 1 Sexual	196 (15.2)	189 (14.7)	117 (9.1)
Class 2 Non-sexual	272 (21.1)	352 (27.3)	453 (35.1)
Class 3 High	110 (8.5)	143 (11.1)	104 (8.1)
Class 4 Low	712 (55.2)	606 (47.0)	616 (47.8)

Traumatic events (%) at each life stage

Traumatic events	Childhood	Teenage years	Adulthood
No traumatic events (%)	16.8	12.2	4.3
Traumatic event (%)			
Witnessed someone's genitals	22.2	23.8	18.1
Sexual abuse by someone close	21.4	17.8	11.3
Sexual abuse by someone not close	11.6	14.2	12.1
Attacked by someone close	39.4	45.7	51.7
Attacked by someone not close	22.9	26.8	29.1
Witnessed harm	30.3	28.1	25.2
Mistreatment by someone close	14.8	19.2	24.7
Mistreatment by someone not close	8.7	11.6	9.1
Family problems	33.0	36.4	35.5
Adult death	51.6	64.8	87.4
Child death	16.0	25.3	34.8
Loss	26.3	28.6	40.0

Item probability plot for traumatic events by class membership at each life stage.

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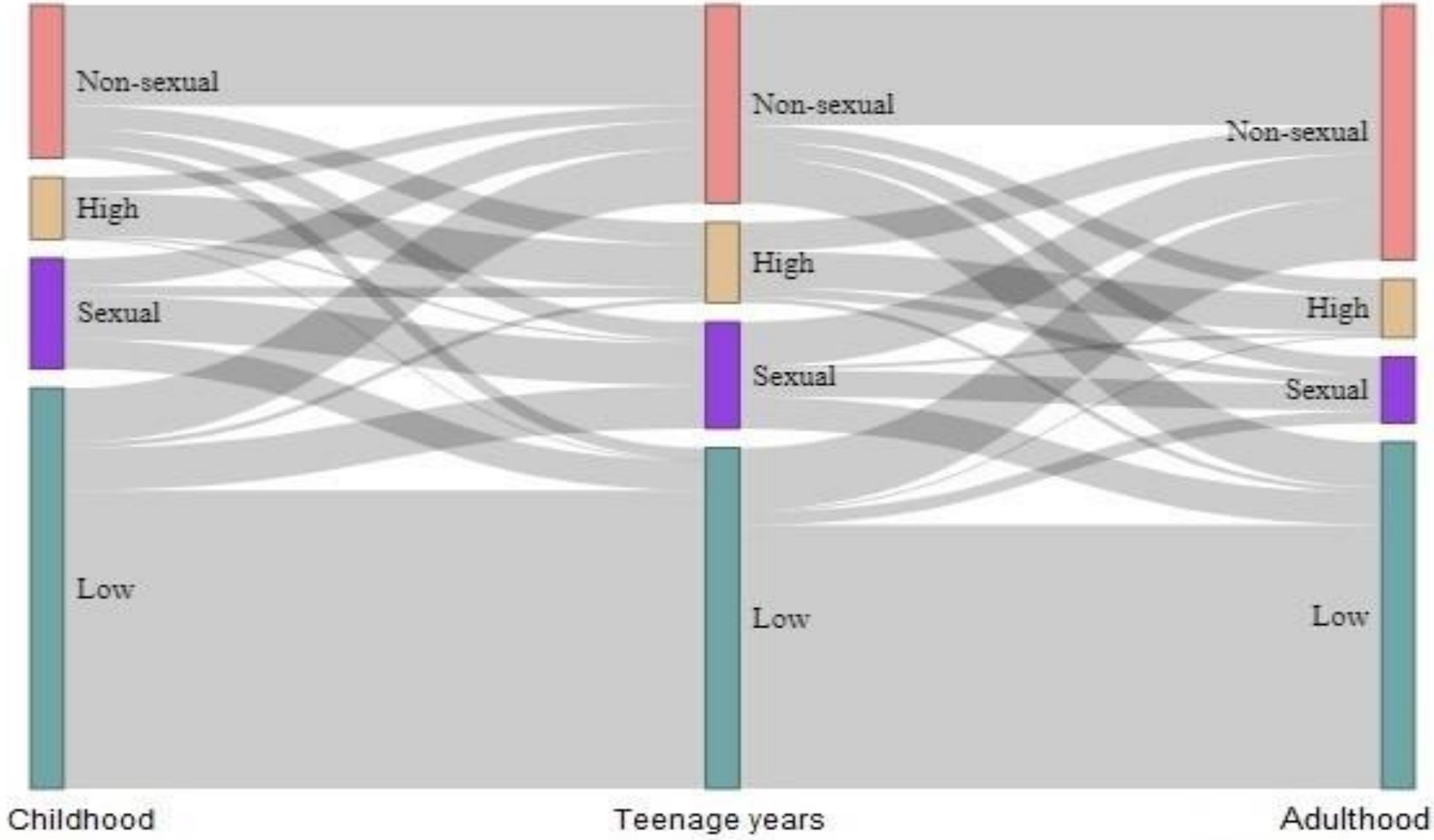
Sankey diagrams depicting latent class transition across three life stages.



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Conclusion

- Traumatic experiences are not isolated events.
  - ➢ Events are interconnected and evolve with age.
- The stability of the High and Low Trauma classes highlights the enduring nature of trauma.
- Significant transitions between types of trauma from childhood to adulthood.
  - ➢ Transitions from Sexual Trauma indicate potential for change over time.

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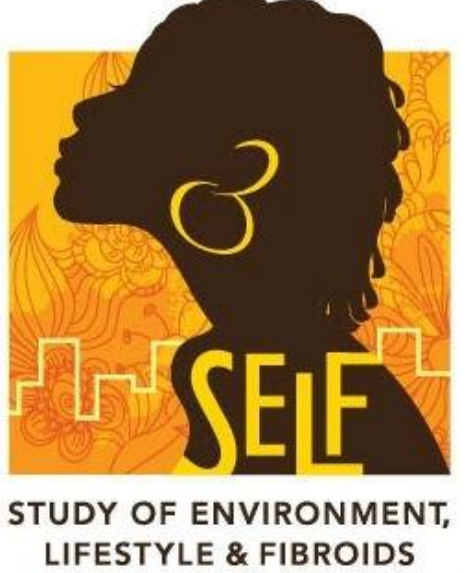

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