

Trauma and Later Sleep Outcomes: Potential Mechanisms

PRESENTER: Abby Person

BACKGROUND:

- It is important to understand predictors of sleep, as sleep has been associated with numerous outcomes particularly relevant to college students, including alcohol and substance abuse (Kenney et al., 2014), mental health (Tavernier & Willoughby, 2014), academic performance (Baert et al., 2015), and physical health (Taylor et al., 2013).
- A history of childhood maltreatment has been found to be one such predictor of poor sleep (Baiden et al., 2015; Brindle et al., 2018; Cecil et al., 2015).
- In order to better understand this relationship and thereby one day be able to create interventions that will assist survivors of childhood maltreatment attain better sleep, it is necessary to examine the mechanisms by which childhood adversity affects sleep.

PRESENT STUDY:

The present study is intended for preliminary research in preparation for a larger dissertation project. Our first step in investigating mechanisms behind the association between childhood maltreatment and sleep is to gather and synthesize past research examining mediators in this relationship. Next, we will conduct correlational analyses between childhood maltreatment and each possible mediator and then associations between said mediators and the sleep variables. We will then run correlations to assess whether childhood maltreatment and sleep are associated, as all three of these steps are necessary to establish mediation and thus are necessary for future mediational analyses (Baron & Kenny, 1986).

METHODS

- Participants:** Students ($N = 183$) recruited from a large public university who participated in an ecological momentary stress management intervention study in Spring 2017 (Nguyen-Feng et al., 2019). Participants were primarily female (82%), with an average age of 21 years ($SD=3.60$).
- Materials:**
 - Childhood Maltreatment:** Childhood Trauma Questionnaire (CTQ)
 - Rumination:** R-COPE Self-focused rumination scale
 - Perceived Control:** Present Control over Stressful Events, Present Control subscale
 - Negative Affect:** International Positive and Negative Affect Schedule Short Form
 - Stressors:** Number of stressors was assessed by having participants fill out a checklist of 10 stressors commonly endorsed by college students
 - Sleep:** Pittsburgh Sleep Quality Index
- Procedure:**
 - Correlations were conducted using SPSS

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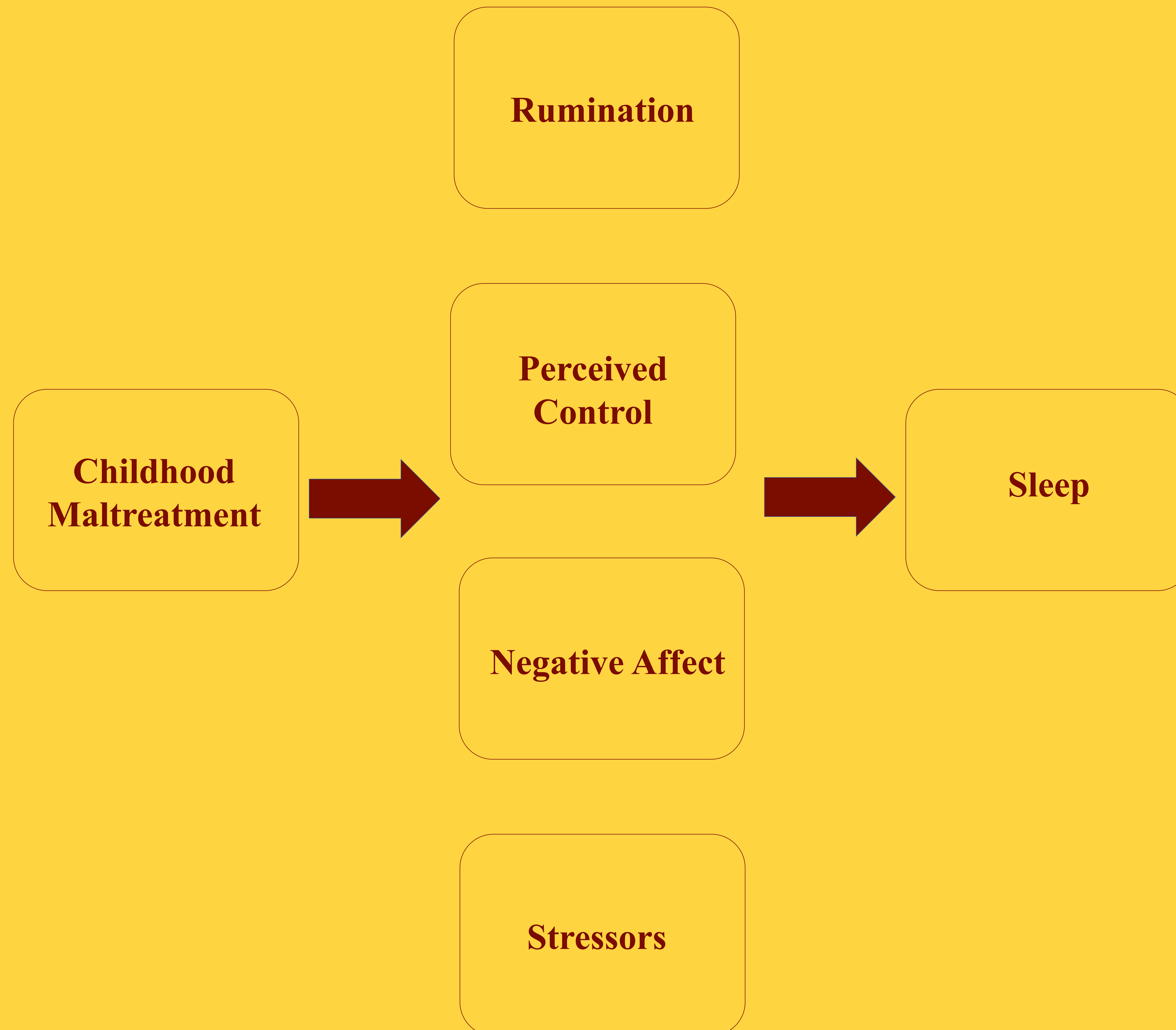


Table 1
Associations Among Child Maltreatment, Daily Variables, and Sleep

	1.	2.	3.	4.	5.	6.	M	SD
1. CTQ	—						1.44	0.45
2. Rumination	.20**	—					1.86	0.49
3. Perceived control	-.26**	-.43**	—				3.18	0.47
4. Negative affect	.17*	.58**	-.52**	—			1.48	0.44
5. Stressors	.17*	.33**	-.29**	.53**	—		2.79	1.73
6. Sleep quality	-.22**	-.21**	.26**	-.27**	-.26**	—	2.00	0.33
7. Sleep restfulness	-.22**	-.24**	.31**	-.27**	-.34**	.64**	3.12	0.62

Note. $N=183$. Daily process variables averaged across days. Possible ranges for number of stressors: 0-10; stressor severity: 0-10; maltreatment: 1-5; sleep quality: 0-3; sleep efficiency: 0-1; restfulness: 1-5; sleep latency (Y/N): 0 (Yes, I did fall asleep within 30 min) - 1 (No, I did not fall asleep within 30 min); sleep disturbances (Y/N): 0 (No, I did not wake up in the middle of the night or early morning) - 1 (Yes, I did wake up in the middle of the night or early morning). Sleep duration reported in hours.
* $p < .05$. ** $p < .01$.

RESULTS AND DISCUSSION:

- Students with a history of childhood maltreatment also reported higher levels of rumination and negative affect, more stressors, and less perceived control.
- Higher levels of rumination and negative affect and more stressors were associated with poorer sleep. Students who reported having less perceived control also reported poorer sleep.
- Childhood maltreatment was associated with poorer sleep quality and sleep restfulness.

STUDY LIMITATIONS:

- Sample was primarily female and White
- Although daily data was available, for the purposes of these preliminary analyses we used the average across the 14 days of data collection

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