

Identifying and describing trajectories of withdrawal among patients in treatment for opioid use disorder: A latent class growth analysis of the CTN XBOT trial



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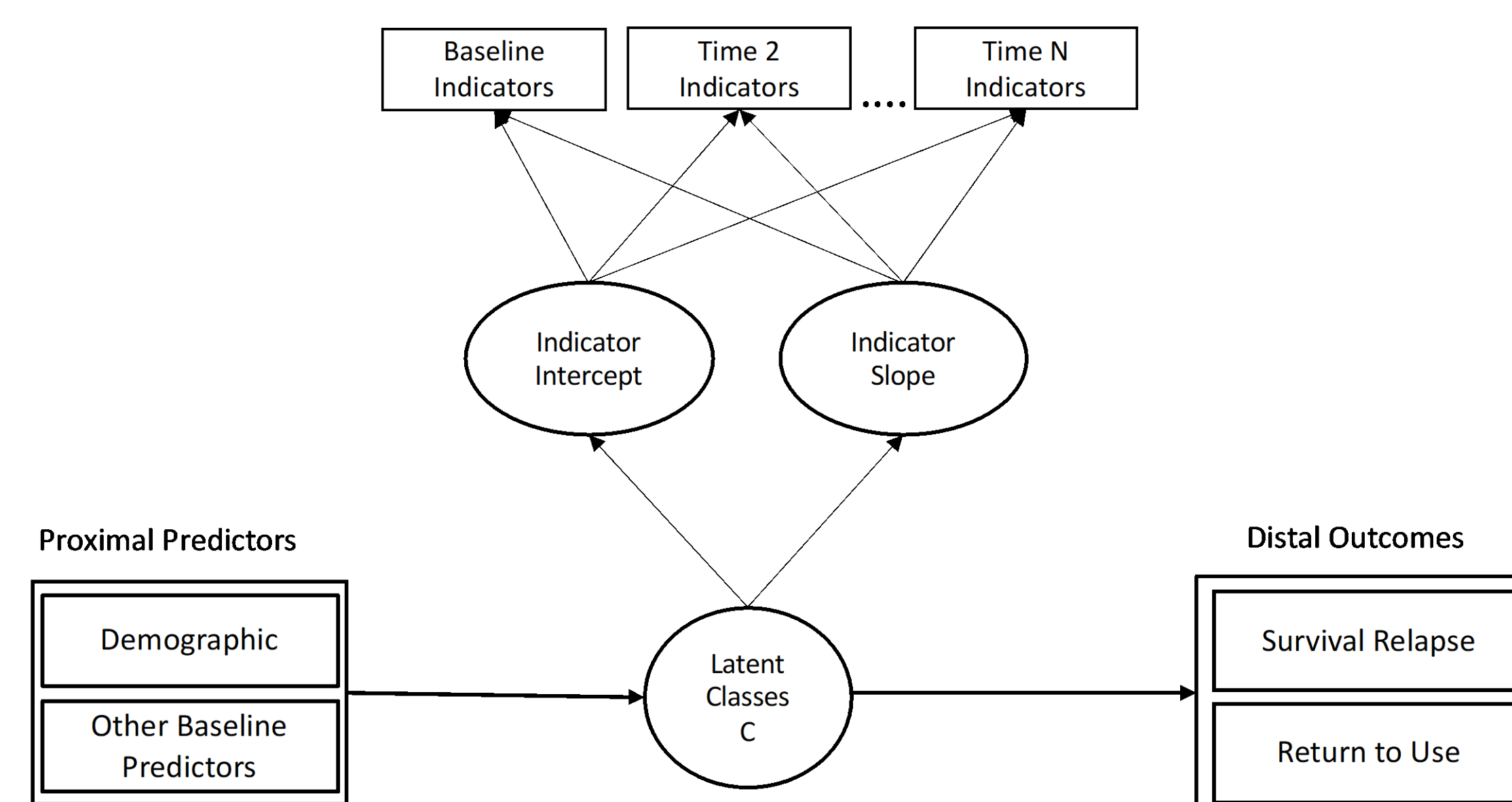
Background

- Opioid use disorder (OUD) represents a significant public health challenge.
- Identifying variations in the severity of opioid withdrawal that can predict treatment success and may help improve the process of aligning patients with appropriate therapies.
- This study was a secondary latent class growth analysis (LCGA) of data from a randomized controlled trial (RCT) that involved individuals seeking treatment for OUD (CTN-0051).

Method

Participants were 474 adults (n=270 BUP and n=204 XR-NTX) in a 24-week treatment trial for OUD. Withdrawal was measured weekly using the subjective opioid withdrawal scale. LCGA was performed in each treatment arm separately among the per-protocol sample. Demographic variables and relapse were examined as predictors and distal outcomes of class membership, respectively.

Conceptual Model



Results

We found that a two-class model (high sustained withdrawal and low withdrawal classes) was most parsimonious among patients in both treatment arms. The experience of withdrawal was more intense in the high withdrawal class of the BUP arm when compared to the XTR arm (average M=22.9 vs. M=12.4 respectively). No differences were evident regarding age, sex, race, or ethnicity. There were significant differences in history of anxiety, history of depression

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SOWS Scores by Tx Arm

Treatment Arm	Class	Mean SOWS	SE
BUP (n=270)	High Sustained Withdrawal	22.9	0.36
	Low Withdrawal	12.4	0.63
XR-NTX (n=204)	High Sustained Withdrawal	12.4	0.63
	Low Withdrawal	22.9	0.36

Description of latent classes

	BUP 1 (n=241)		BUP 2 (n=29)		XR 1 (n=176)		XR 2 (n=28)		probability
	n	%	n	%	n	%	n	%	
SOW (mean, SE)	5.52	0.36	22.88	1.65	3.88	0.44	12.36	2.08	<0.001
Age (mean, SE)	33.81	0.63	32.45	1.94	33.88	0.73	32.29	1.32	0.34
Sex									
Male	171	70.95	22	75.86	120	68.18	18	64.29	0.734
Female	70	29.05	7	24.14	56	31.82	10	35.71	
Ethnicity									
Not Hispanic/Latino	194	80.50	23	79.31	155	88.07	22	78.57	0.174
Hispanic/Latino	47	19.50	6	20.69	21	11.93	6	21.43	
Race									
Black & Other Races	59	24.48	10	34.48	40	22.73	6	20.69	0.29
White	182	75.52	19	65.52	136	77.27	23	79.31	
Anxiety disorder history									
No	136	56.43	13	44.83	97	55.11	8	28.57	0.031
Yes	105	43.57	16	55.17	79	44.89	20	71.43	
Major depressive disorder history									
No	170	70.54	18	62.07	122	69.32	11	39.29	0.008
Yes	71	29.46	11	37.93	54	30.68	17	60.71	