

# Changes in threat/control override delusions, substance use, and violence

Presenters: **Leanne R. Vibar** & **Dr. Kevin S. Douglas**

Department of Psychology, Simon Fraser University

lvibar@sfu.ca, douglask@sfu.ca

## BACKGROUND

Despite empirical evidence indicating that only a small fraction of individuals with mental illness exhibit aggression, the long-standing belief linking mental illness to violence persists. Previous research suggests that threat/control-override (TCO) delusions, a specific type of psychotic symptom, may account for the elevated violence risk in individuals with mental illness. Research has also shown that substance use, a significant risk factor for violence among those with and without mental illness, may largely explain the relationship between TCO delusions and violence. However, many studies overlook these dynamic risk factors by only examining them at a single point in time or by using aggregate measures.

As such, **the current study investigates how changes in substance use and TCO symptoms are associated with violence risk among discharged psychiatric patients.**

## METHOD

This study draws data from the MacArthur Violence Risk Assessment study, conducted between 1992 and 1995. Data on risk factors and violence was collected every ten weeks for one year from discharged psychiatric patients (n=951), collateral informants, and health and criminal records.

**Substance use** – Average number of days per week using any substance, including:

### Drugs

- Marijuana, stimulants, sedatives, cocaine, heroin, opiates, PCP, psychedelics, other
- Average days per week using any drug

### Alcohol

- Beer, wine, liquor
- Average number of binge days per week (1 binge = 5 drinks)

# Threat/control-override (TCO) delusions and substance use predict violence among discharged psychiatric patients

Figure 1 – Survival curve for time to first violent incident

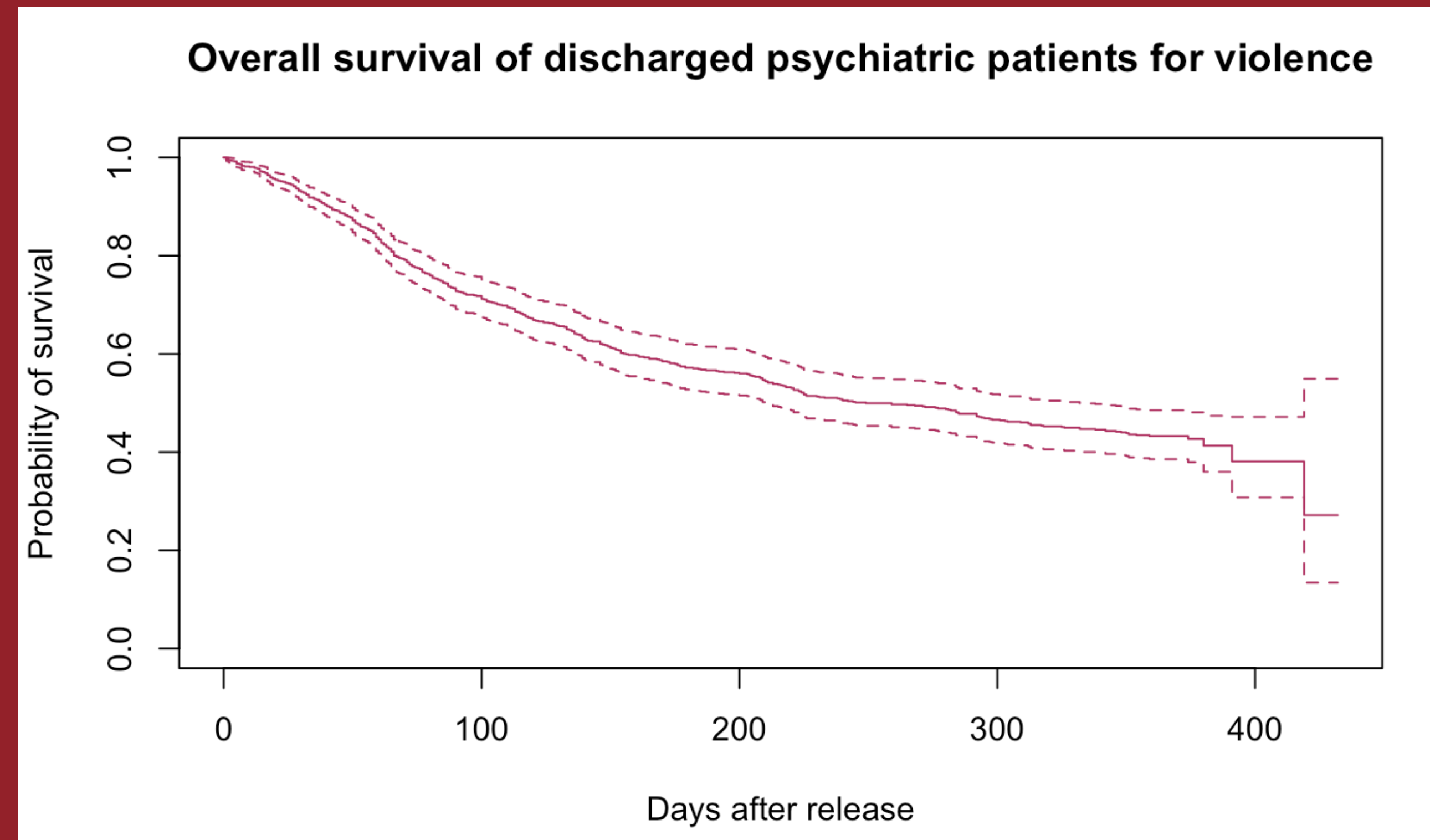
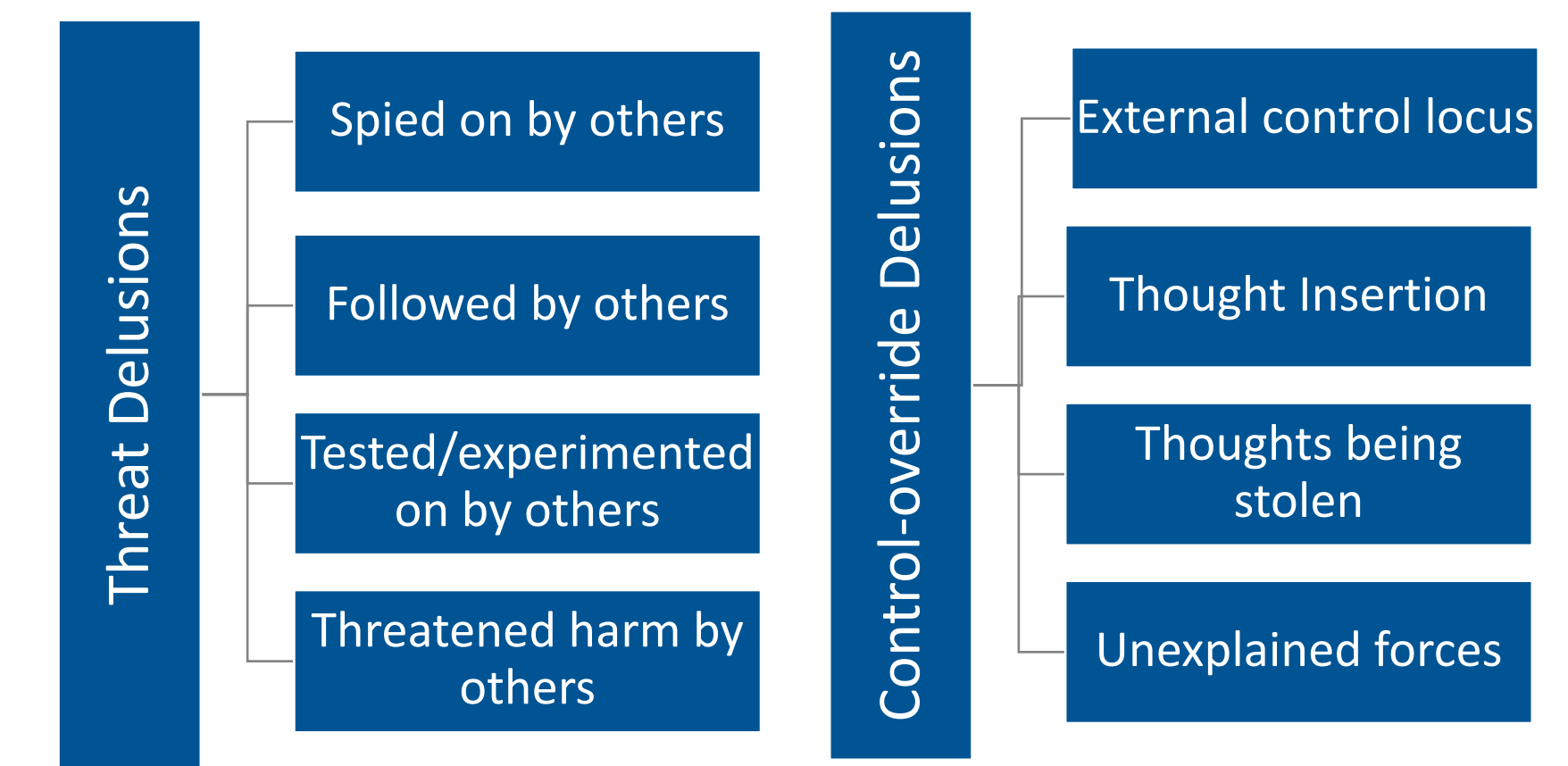


Table 1 – Proportion of patients reporting the presence of each risk factor over time (Non=non-violent, viol=violent)

		10 weeks		20 weeks		30 weeks		40 weeks		50 weeks	
		N (%)	Total N	N (%)	Total N	N (%)	Total N	N (%)	Total N	N (%)	Total N
TCO	Non	71 (16)	431	63 (15)	416	54 (14)	379	47 (13)	376	44 (12)	376
	Viol	79 (19)	410	71 (17)	413	64 (16)	391	48 (13)	376	52 (14)	373
	All	150 (18)	841	134 (16)	829	118 (15)	770	96 (13)	752	96 (13)	749
Threat	Non	53 (12)	431	49 (12)	416	41 (11)	379	39 (10)	376	29 (8)	376
	Viol	63 (15)	410	50 (12)	413	50 (13)	391	38 (10)	376	41 (11)	373
	All	116 (14)	841	99 (12)	829	91 (12)	770	77 (10)	752	70 (9)	749
CO	Non	47 (11)	431	39 (9)	416	33 (9)	379	25 (7)	376	29 (8)	376
	Viol	41 (10)	410	48 (12)	413	33 (8)	391	25 (7)	376	28 (8)	373
	All	88 (10)	841	87 (10)	829	66 (9)	770	50 (7)	752	57 (8)	749
Substance days	Non	85 (20)	428	95 (23)	413	78 (21)	375	69 (18)	375	81 (21)	378
	Viol	146 (36)	406	160 (39)	411	141 (36)	389	122 (32)	376	112 (30)	373
	All	231 (28)	834	255 (31)	824	219 (29)	764	191 (25)	751	193 (26)	751
Drug days	Non	58 (60)	96	67 (71)	94	57 (66)	86	51 (64)	80	59 (73)	81
	Viol	104 (60)	172	126 (68)	184	94 (67)	141	92 (66)	139	76 (60)	127
	All	162 (60)	268	193 (69)	278	151 (67)	227	143 (66)	219	135 (65)	208
Alcohol binge days	Non	38 (9)	426	48 (12)	412	37 (10)	375	31 (8)	375	34 (9)	378
	Viol	76 (19)	402	81 (16)	409	80 (21)	388	58 (16)	374	64 (17)	371
	All	114 (14)	828	129 (16)	821	117 (15)	763	89 (12)	749	98 (13)	749

## METHOD (continued)

TCO symptoms – Presence of (1 or more):



## RESULTS

Over time, there was a small decrease in participants experiencing TCO delusions and using substances (Table 1). Among the 465 participants who engaged in violence, slightly over half were male (55%, n=254).

An extended Cox regression model showed that substance use (HR=1.13, 95% CI LL=1.09, UL=1.17, p<.001) and TCO delusions (HR=1.20, 95% CI LL=1.01, UL=1.43, p=.04) predict violence (Figure 1).

The interaction between substance use and TCO delusions was associated with a reduced likelihood of violence, but this effect was only nearly significant (HR=.943, 95% CI LL=.89, UL=1.0, p=.056).

## DISCUSSION

The present findings suggest that the presence of TCO delusions and substance use predict violence.

Prior research has shown conflicting results regarding the link between TCO delusions, substance use, and violence, possibly due to methodological variations among studies.

Indistinct measures of risk factors, including substance use and TCO delusions, offer less predictive value for violence.

The current study emphasizes the need for practitioners to implement routine screening for psychiatric patients to assess the patterns, roles, and unique relevance of risk factors for each patient to manage violence risk.

## REFERENCES

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