

Violent Outcomes, Substance Use, and Psychiatric Symptoms among Adults with Mental Illness in Integrated Data

Presenters:

Richard A. Van Dorn Kiersten L. Johnson
Sarah L. Desmarais Brian G. Sellers
Kevin J. Grimm Kevin S. Douglas
Stephen J. Tueller Marvin S. Swartz

Discussant:

Dale E. McNiel

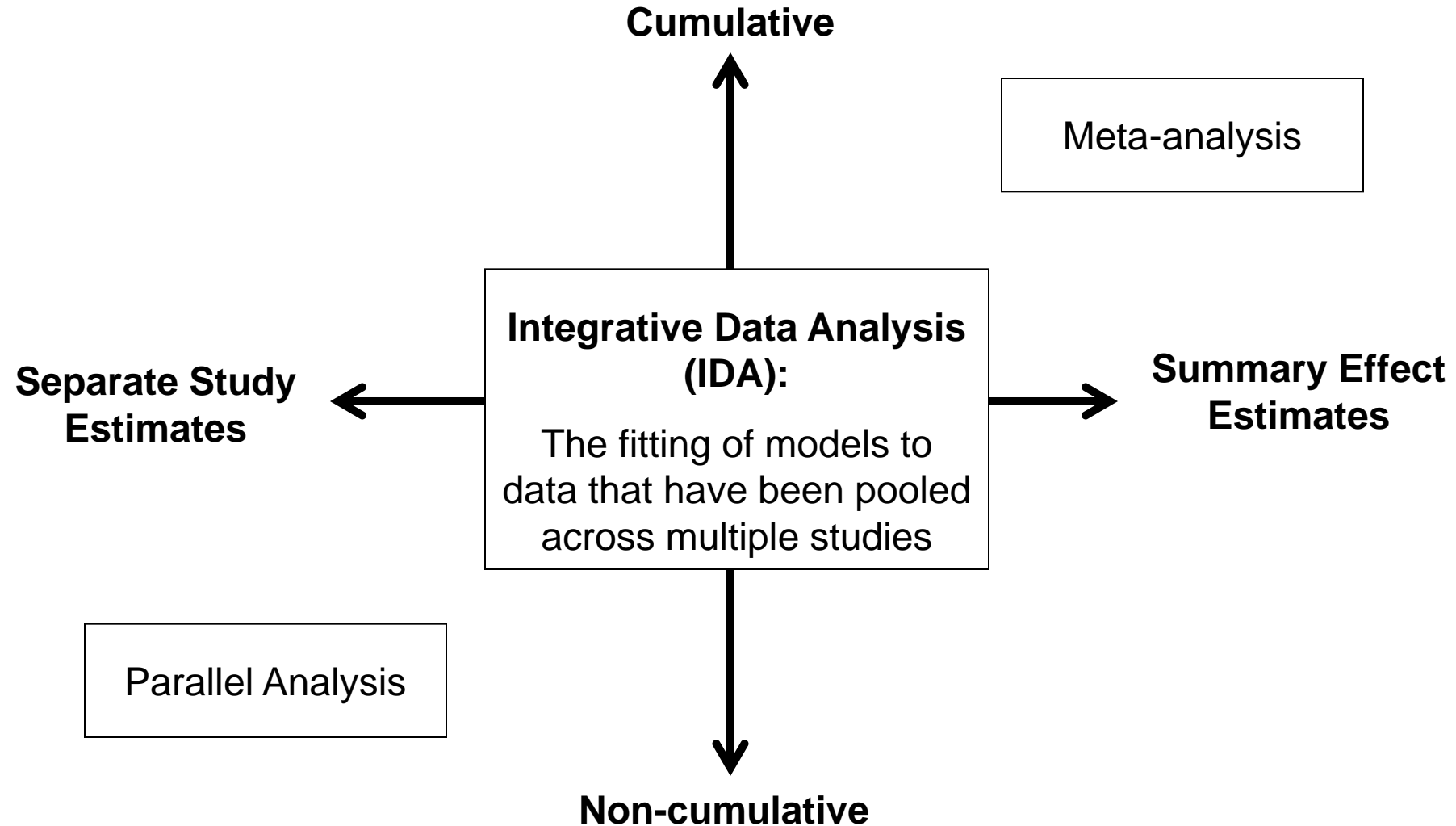
State of the Field

- There is a statistically significant, yet modest relationship between mental illness and violence perpetration
- Adults with mental illness are more likely to be victims than perpetrators of violence
- The victimization experiences of adults with mental illness are largely ignored
 - 3x as many publications on mental illness and violence as on mental illness and victimization

State of the Field, continued

- Prior violence and victimization research, while informative, has been limited by:
 - Small, non-representative samples
 - Limited assessments of violence and victimization
 - Rare examination of the co-occurrence of violence and victimization
 - Focus on static factors, as opposed to dynamic factors
 - Imprecise conceptualization of treatment-relevant factors across studies and across patients

The Quest for a Cumulative Science



The Present Project

- ***Aim:*** Combine, through integrative data analysis, 5 datasets to study the relationship between violence and victimization in adults with SMI with focus on clinical characteristics
 - ***Study 1:*** Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE)
 - ***Study 2:*** Mental Disorder & Violence Risk Study (MacRisk)
 - ***Study 3:*** Schizophrenia Care & Assessment Program (SCAP)
 - ***Study 4:*** Mandated Treatment Study (MacMandate)
 - ***Study 5:*** Facilitated Psychiatric Advance Directive Study (F-PAD)

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Presentation Overview

- **Presentation 1:** Latent class analysis of violence, victimization, and suicide in adults with mental illnesses
- **Presentation 2:** The latent structure of psychiatric symptoms in adults with mental illnesses and the implications of sample size and distributional assumptions
- **Presentation 3:** Longitudinal typologies of violence and victimization in adults with mental illnesses: A latent transition analysis
- **Presentation 4:** Cross-lagged relationships between violent behaviors, substance use, and psychiatric symptoms in adults with mental illnesses

Measurement and Operationalization

- Violence and victimization

- MacArthur Community Violence Screening Instrument (MCVSI) (Steadman et al., 1998)
 - Univariate factor score
 - Raw, yes/no data

- Psychiatric symptoms

- Positive and Negative Syndrome Scale (Kay et al., 1987)
- Brief Psychiatric Rating Scale (Overall & Gorham, 1962)
- MacArthur-Maudsley Delusions Assessment Schedule (Appelbaum et al., 1999)
 - Affect, positive, negative, disorganized cognitive processing factors

Measures and Operationalization, continued

- Substance use

- CAGE (Mayfield et al., 1974)
- Alcohol or Drug Use Scales (Drake et al., 1990)
- SCID (First et al., 1996)
 - Abstinence, non-problematic use, problematic use

- Suicide-related behaviors

- Montgomery–Åsberg Depression Rating Scale (Montgomery & Åsberg, 1979)
- Calgary Depression Scale (Addington et al., 1990)
- Self-report
 - Ideation, attempt

Measures and Operationalization, continued

- Diagnostic characteristics
 - Interviews and chart reviews
 - Schizophrenia
 - Depression
 - Bipolar disorder
 - Substance use disorder
 - Other (e.g., anxiety) disorders
- Demographic characteristics
 - Sex
 - Age, continuous
 - Race
 - White
 - Black
 - Hispanic
 - Other race/ethnicity

Pooled Data

- 4,481 participants
- Sex
 - 59.8% male
- Race
 - 51.4% White
 - 37.7% Black
 - 7.1% Hispanic
 - 3.8% other race/ethnicity
- Age: range, 18 and 77 years (M=39.09; SD=11.34)
- Diagnosis
 - Schizophrenia, 63.4%
 - Depression, 18.4%
 - Bipolar disorder, 9.5%
 - Substance use disorder, 6.2%
 - Other (e.g., anxiety) disorders (2.4%)

Longitudinal Typologies of Violence and Victimization: A Latent Transition Analysis

Kiersten L. Johnson¹, Sarah L. Desmarais¹, Stephen J. Tueller²,
Kevin J. Grimm³, Marvin S. Swartz⁴, & Richard A. Van Dorn²

¹*North Carolina State University*, ²*RTI International*,
³*Arizona State University*, ⁴*Duke University*

Background

- Adults with mental illness are at heightened risk of violence perpetration and victimization
- Research on the relationship between these two outcomes is limited
 - Rarely measured in the same sample and/or timeframe
 - Heterogeneity in operational definitions
 - Few longitudinal studies
- Status as a non-victim/non-perpetrator (NVNP), victim only (VO), perpetrator only (PO), or victim-perpetrator (VP) may change over time
 - Transition between classes may be a function of clinically relevant symptoms, such as substance use, suicidal behaviors, and psychiatric symptoms

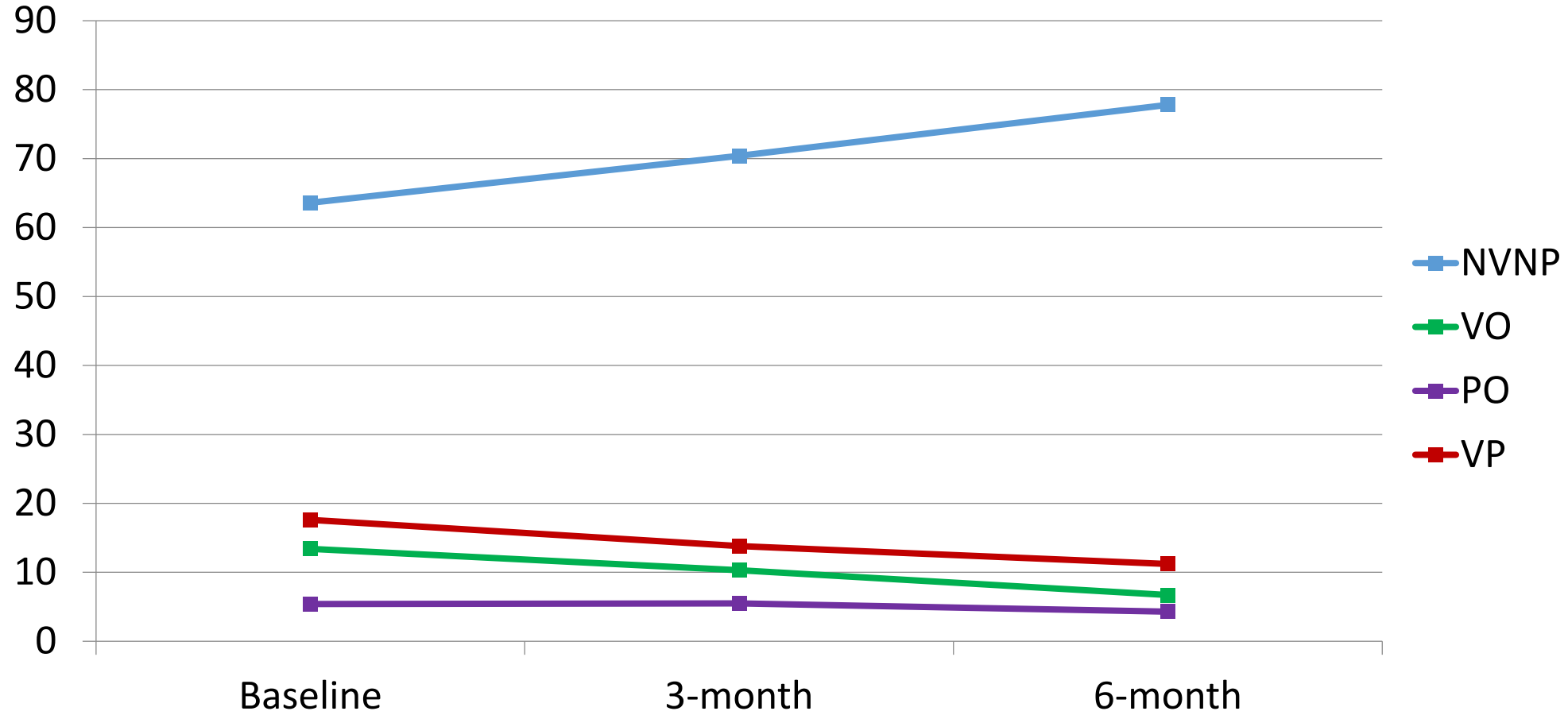
Present Study

- Examine the longitudinal relationship between violence and victimization to:
 - Determine the prevalence of NVNP, VO, PO, and VP classes at three time points;
 - Calculate the likelihood of remaining in and transitioning across classes over time; and
 - Assess the individual effects of substance use, suicide-related behaviors, and psychiatric symptoms on transitions across classes

Analyses

- What is the prevalence of NVNP, VO, PO, and VP over time?
 - Latent transition analyses (LTA) with no covariates
- What is the probability of remaining in and transitioning across classes over time?
 - Calculate LTA probabilities across time points
- How are substance use, suicide-related behaviors, and psychiatric symptoms related to class membership over time?
 - LTAs with covariates where we examined the effect of each covariate (at baseline) on class transitions between baseline and 3-month
- All models were run in *Mplus*

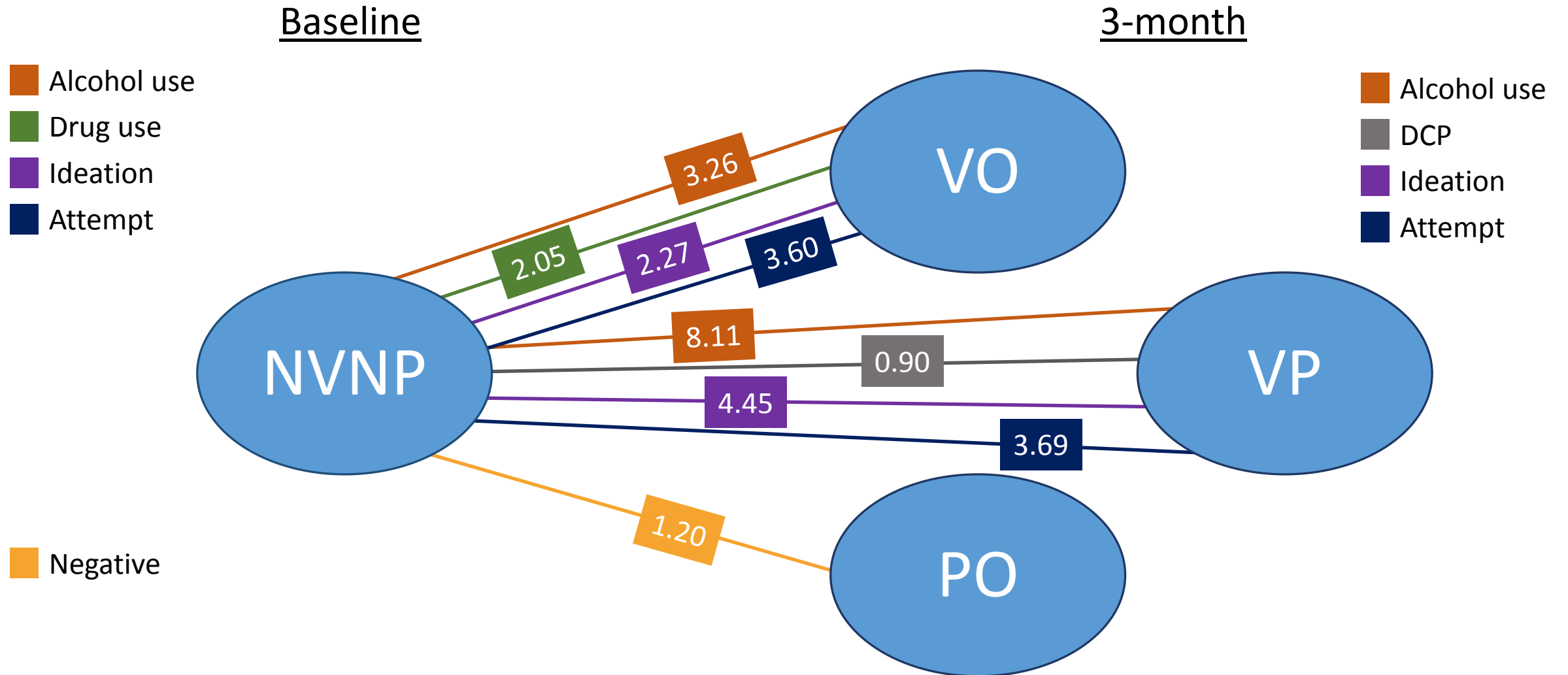
Results: Observed Classes Over Time



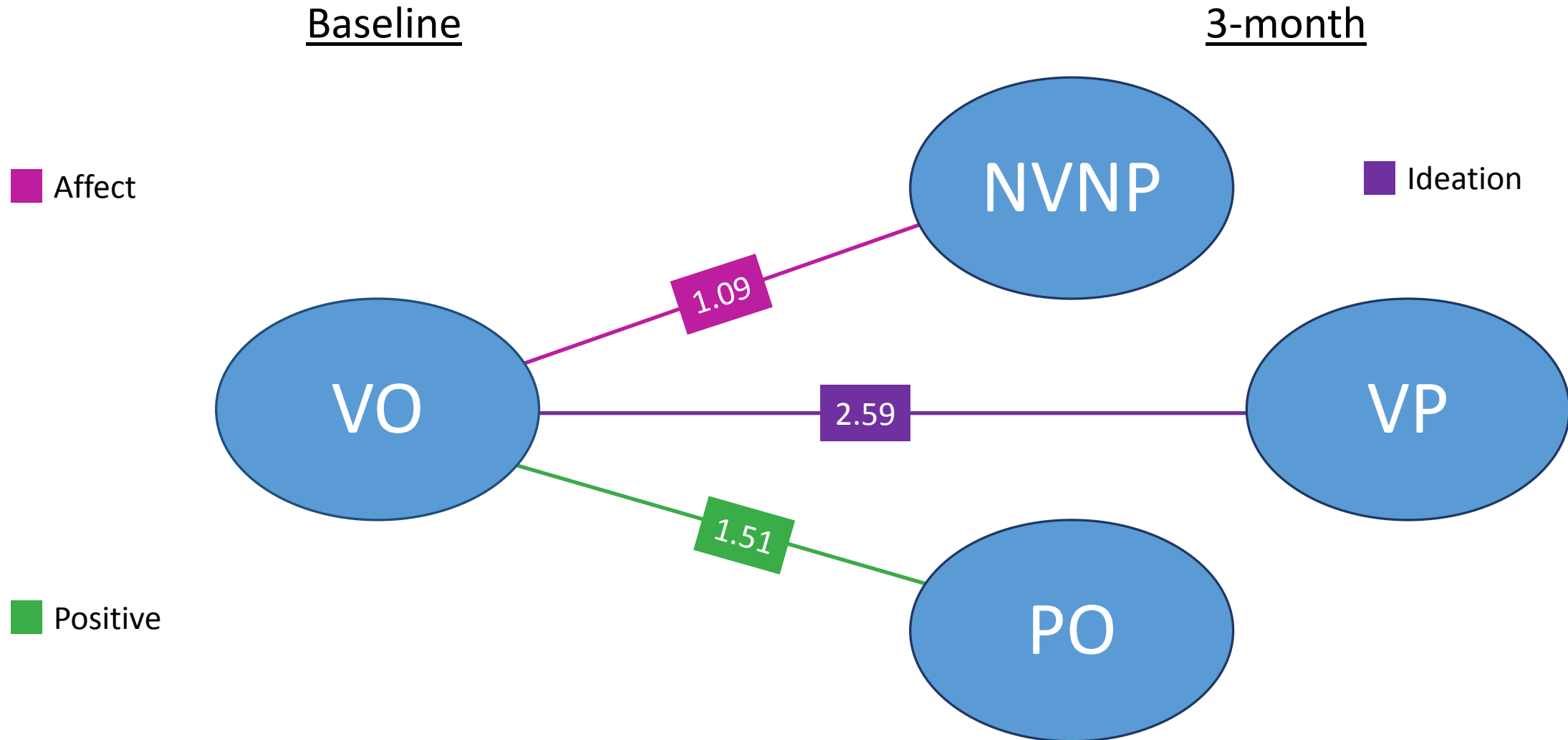
Results: Transition Probabilities

		3-month			
		NVNP	VO	PO	VP
Baseline	NVNP	.86	.07	.03	.05
	VO	.49	.24	.07	.21
	PO	.51	.07	.24	.18
	VP	.38	.14	.09	.39
		6-month			
		NVNP	VO	PO	VP
3-month	NVNP	.91	.03	.03	.04
	VO	.52	.24	.02	.22
	PO	.55	.06	.17	.22
	VP	.39	.15	.08	.38

Results: Effects of Covariates on Transitions



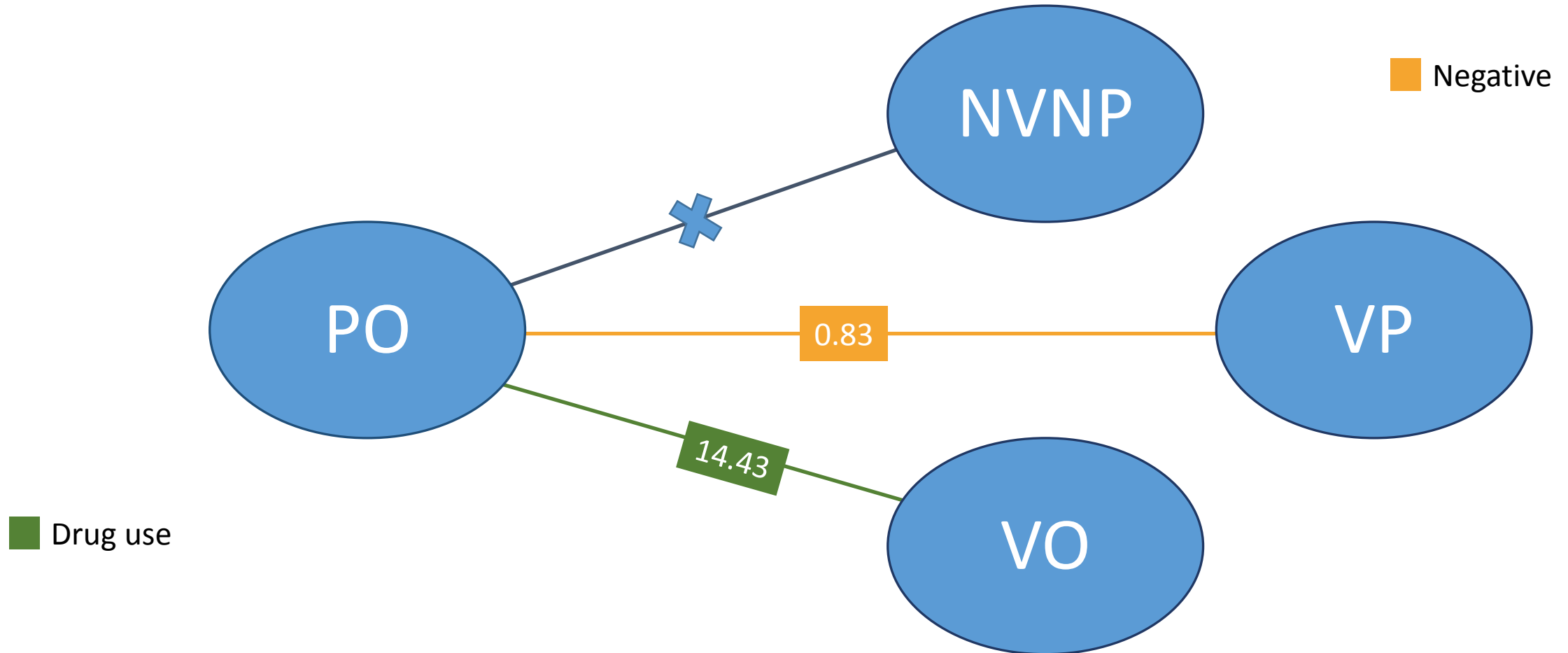
Results: Effects of Covariates on Transitions



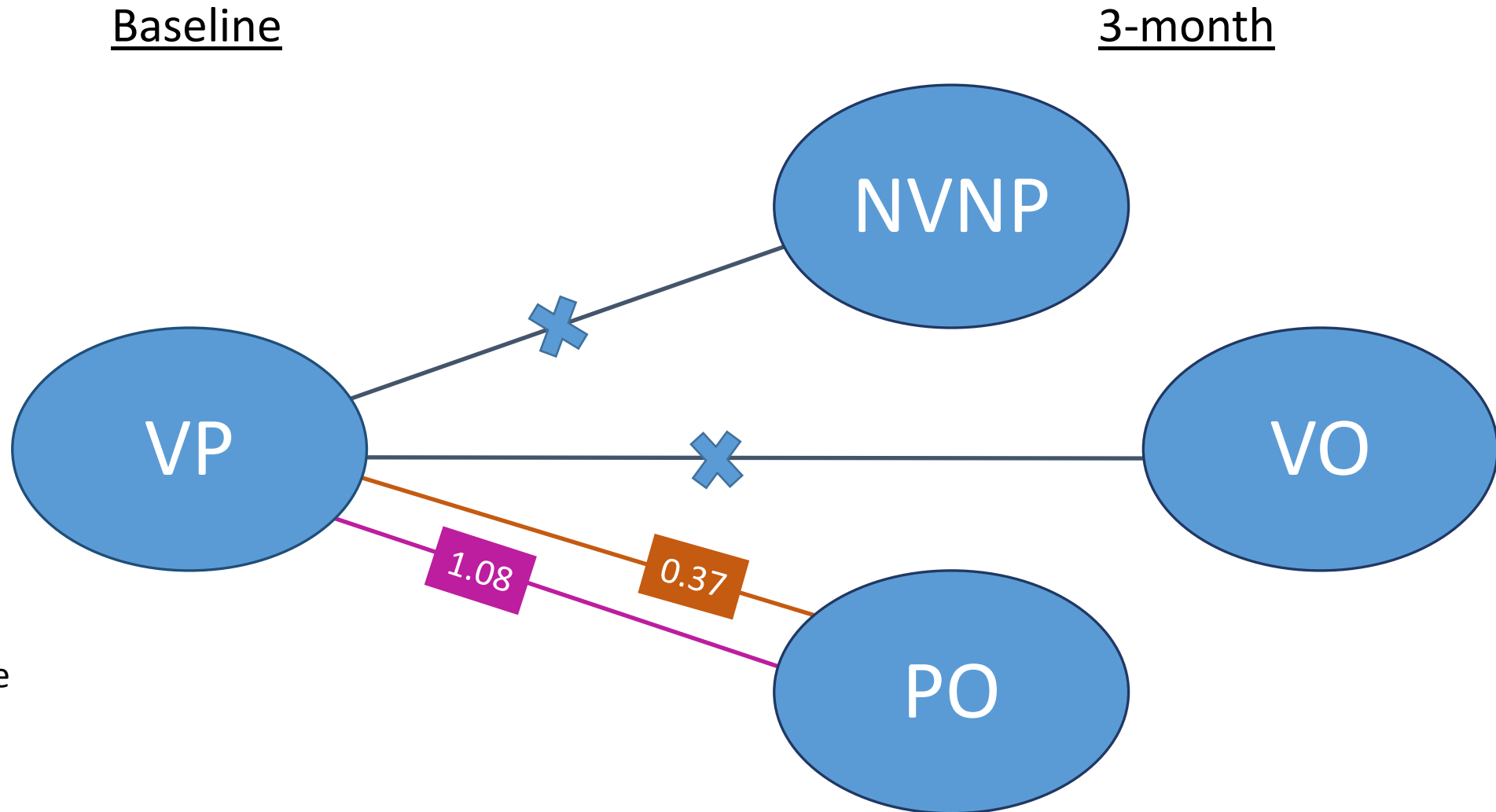
Results: Effects of Covariates on Transitions

Baseline

3-month



Results: Effects of Covariates on Transitions



Discussion

- Individuals in VO, PO, and VP classes are likely to transition across all four classes over time
- Substance use, suicidal behaviors, and psychiatric symptoms have varying effects on the association between violence and victimization over time
- Long windows of observation preclude examination of the effects of violence and victimization on one another
- Intervention strategies targeting the identified behaviors and symptoms may reduce risk of future violence and victimization