

# Physical Health Perceptions of Women with Comorbid PTSD and SUD

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## Abstract

**Aims:** Individuals with comorbid post traumatic stress disorder (PTSD) and substance use disorders (SUD) are at greater risk for chronic health problems and report worse physical function than individuals with SUD alone. The current study is a secondary analysis from a NIDA Clinical Trials Network study exploring the impact of two treatments for women with trauma and SUD on medical problems and health status perception.

**Methods:** Women meeting criteria for PTSD and alcohol and/or SUD (N= 353) were randomized to either 12 twice weekly group sessions of Seeking Safety, a trauma focused integrated SUD/PTSD treatment, or 12 twice weekly group sessions of Women’s Health Education, an intervention focusing on gender specific health issues. Women were assessed at baseline, 1, 12, 24 and 52 weeks post intervention on questions from the medical subscale of the addiction severity Index and five questions inquiring about health status perception. GLM multivariate analysis of variance was conducted to assess difference between study groups across time on measures of perceived physical health and whether women experiencing re-victimization had poorer health status perception. **Results:** Forty six percent of women reported a chronic medical problem at baseline and 39% reported taking a prescribed medication for a medical problem. There were no main effects of time, group or time by group interaction on measures of perceived health or number of days experiencing medical problems. Across the follow-up visits, women who experienced re-victimization (25%) reported having significantly more days of medical problems and worse perceived health than those women who did not report victimization during the follow-up. **Conclusions:** Women with PTSD and SUD have physical health concerns that were not differentially affected by study treatments. Treatment for SUD and PTSD may be improved by addressing health concerns, particularly in women who experience re-victimization post treatment.

## Background and Rationale

Substance abuse patients are at a greater risk for medical problems than the general population (Mertens et al., 2003). Patients with comorbid PTSD and SUD are at even greater risks for chronic health problems and report worse physical functional status than individuals with either disorder alone. Substance use disorders and PTSD can impact physical health along a number of potential mechanisms, namely biological changes, poor health practices dysfunctional coping, and injury (Spitzer et al., 2009). Specifically, cardiovascular and neurological symptoms were reported as more severe in patients with comorbid PTSD and SUD than in patients with SUD without PTSD (Ouimette et al., 2006). Health conditions such as chronic pain, particularly if associated with trauma may increase drug seeking behaviors. Co-occurring medical problems and SUD could complicate treatment for SUD. It is unknown if specific treatment that addresses PTSD and/or SUD can impact these health problems or if individuals with subsequent trauma have worse health perception outcomes.

## Methods

The present study is a secondary analysis of a NIDA CTN study investigating the effectiveness of treatment for trauma and substance abuse disorder in women presenting for treatment at community treatment programs across the United States. Participants were female outpatients at seven psychosocial community treatment programs affiliated with the CTN. Participants were enrolled between 2004 and 2006. In total, 353 participants were randomized to receive 12 twice weekly group sessions of either Seeking Safety or Women’s Health Education. Women were assessed at 1- week, 12-, 24- and 52-weeks post treatment.

### Outcome Definitions

The *Addiction Severity Index (ASI)* is a semi structured interview that assesses alcohol and substance use severity in seven different life domains that are typically affected by addiction. An *ASI addendum questionnaire* asked about physical and or sexual abuse, reproductive health history and perceived general health status. In the current study, *re-victimization* was defined as physical violence or sexual assault at any point during the 12-month follow-up period. Participants were asked: “Since our last interview, has anyone used physical violence (such as being slapped, pushed, hit or punched) or the threat of physical violence against you?”, and “Since our last interview, has anyone used sexual violence (forcing you to do anything sexual) or the threat of sexual violence against you?”

### Statistical Analyses

Women with and without re-victimization were compared on baseline demographics, medical concerns and psychosocial characteristics using chi square test for categorical variables and independent t-test for continuous variables.

We fit longitudinal models to examine effects across follow up visits.

Treatment group by time differences on the ASI medical subscale composite scores and the number of days experiencing medical problems at follow-up was obtained using GLM multivariate ANOVA.

Medical problem severity and health perceptions by re-victimization events were compared across follow-ups using multivariate ANOVA with visit week and re-victimization events as independent variables.

## Results

- At baseline, 46% of the women reported having a chronic health problem that interfered with their life and 39% reported taking medication on a regular basis for their medical condition. The majority of medical conditions involved musculoskeletal, cardiac, infectious and pulmonary disorders.

There were no differences across time between the two treatment groups on measures of health perception, number of days experiencing medical problems and medical severity as measured by the ASI medical subscale composite score.

Approximately 25% (N = 87) of women reported re-victimization events (N = 116) at some point during the follow-up period. Baseline demographic, psychosocial and medical status for the total sample and those participants reporting versus not reporting re-victimization is displayed in Table 1.

Reports of re-victimization vs no victimization events were significantly associated with more days experiencing medical problems at each of the follow-up assessments (estimated marginal means 13.3(1.03) vs 8.2(0.409) days in the past 30 days  $F\{1, 832\} = 20.54, p < 0.001$ ).

Reports of re-victimization vs no victimization events were significantly associated with higher scores on the ASI medical subscale composite score at each of the follow-up assessments (estimated marginal means 0.50 vs 0.32, respectively,  $F\{1, 832\} = 27.76, p < 0.001$ ). There was no time by re-victimization event interaction. Figure 1

Women reporting re-victimization events at each of the follow-up assessments had significantly worse ratings on general health perception than those not reporting victimization events. There was no time by re-victimization event interaction. Figure 2

Table 1 **Baseline Demographic and Medical Perceptions by Re-victimization Groups**

Variables	Total N=353	Re-victimization N=87	No Re-victimization N=266	p values
Age (Mean/SD)	38.7(9.3)	38.5(7.9)	38.7 (9.6)	p = 0.9
Ethnicity (%)				p = 0.2
African American	34%	41.4%	31.6%	
Caucasian	45.6%	40.2%	47.4%	
Hispanic	6.5%	3.4%	7.5%	
Other	13.9%	14.9%	13.5%	
Marital Status (%)				p = 0.3
Married	17.6%	17.2%	17.7%	
Single	36.9%	31%	38.7%	
Div/Sep	40.5%	48.3%	37.8%	
Education (Mean/SD)	12.5(2.4)	12.2(2.1)	12.6(2.5)	p = 0.2
Employment (%)				P = 0.7
Employed Full Time	32.7%	30%	30%	
Unemployed	40.8%	36.8%	42.1%	
ASI Medical Subscale Score (Mean/SD)	0.43(0.33)	0.44(0.34)	0.43(0.33)	p = 0.7
# Medical Hospitalizations (Mean/SD)	3.7(7.0)	3.8(7.6)	3.7(6.8)	p = 0.9
# Days Experiencing Medical Problems Past 30 Days (Mean/SD)	10.1(11.0)	11.7(11.6)	9.6(10.8)	p = 0.1
Current Health Status Rating (Mean/SD) 1 = excellent to 5 = very poor	2.4(0.88)	2.5(0.93)	2.3(0.86)	p = 0.1
ASI Psychiatric Subscale Score (Mean/SD)	0.39(0.19)	0.41(0.20)	0.39(0.19)	p = 0.4

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Figure 1 **Estimated Marginal Means for Medical Subscale Composite Scores by Re-victimization Events**

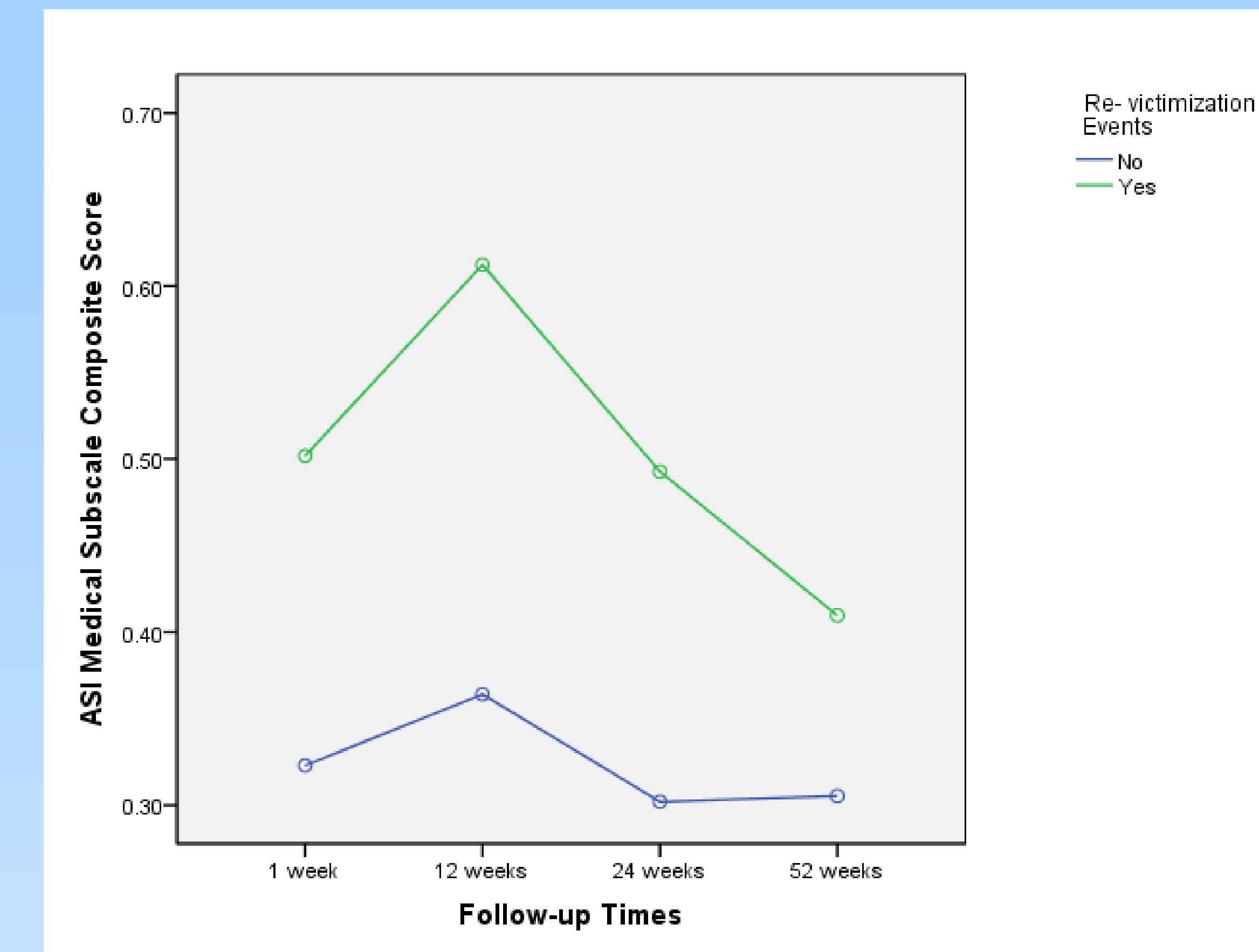
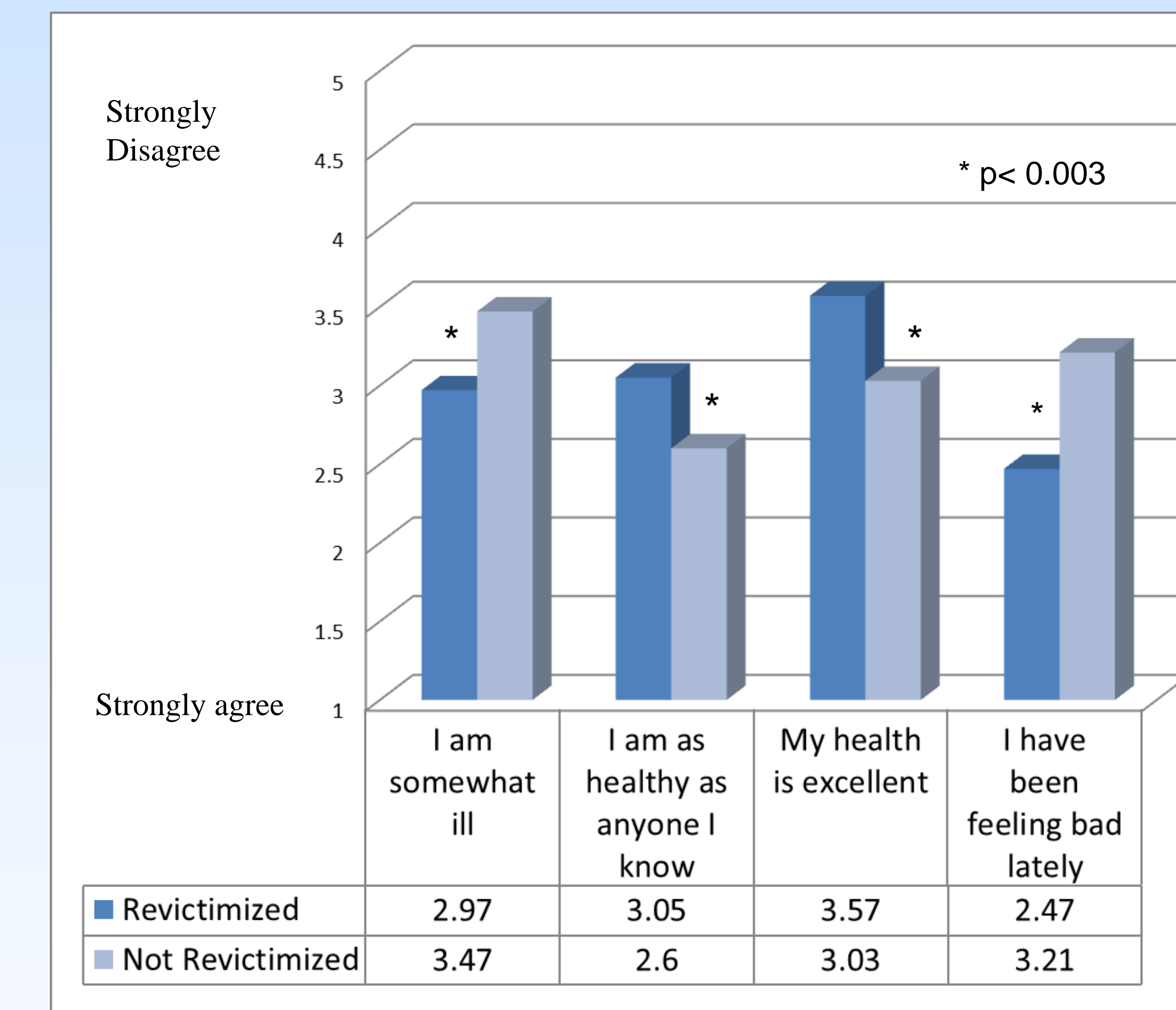


Figure 2 **Adjusted Longitudinal Means for General Health Perception by Re-victimization Events**



## Conclusion

A substantial number of women with trauma history and substance use disorder presenting for substance abuse treatment at community programs report medical problems and health concerns.

Neither Seeking Safety or Women’s Health Education Interventions added to standard substance abuse treatment impacted medical problem severity or health perceptions.

Re-victimized women report more severe medical problems and poorer health perception than women not reporting re-victimization. Screening and referral to treatment for medical problems may be indicated and beneficial for these women.