

Impact of Safety Organizing in Residential Treatment Centers on Child Welfare Outcomes

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Objectives

- An observational study of reliability, validity, and association with child outcomes of mindful organizing as measured by the Safety Organizing Scale (SOS) among staff at residential treatment centers (RTCs) serving youth in a child welfare system.

Background

- Like other healthcare organizations, RTCs strive to achieve highly reliable operations.¹
- Existing research show that high reliability organizations derive their ability to manage hazards by achieving organizational mindfulness.
- Prior work has demonstrated that the SOS can reliably measure mindful organizing and is associated with patient outcomes in a number of settings,² but not children’s RTCs.

Method

Data Source: Illinois Department of Children and Family Services (DCFS) administrative data and an adapted version of the 9-item SOS via staff survey.

Cohort: 1,244 RTC spells for youth served by 958 staff from 43 RTC with complete SOS survey responses in June 2016-September 2016.

Study Period: From spell begin date/survey begin date to survey end date +6 months/spell end date.

Reliability and Validity Analysis: Cronbach’s alpha. Confirmatory factor analysis (CFA) of 1 latent factor underlying the 9-item SOS.

Outcome Analysis: Zero-inflated Poisson regression and logistic regression.

Predictors in Outcome Analysis: RTC-level SOS score (higher score means to a greater extent).

Covariates in Outcome Analysis: Youth’s gender, ethnicity, age, # of spell days before study period.

Outcomes: (1) Presence of maltreatment during RTC; (2) Exit from RTC to home-based care; and (3) Number of psychiatric hospitalization, detention, runaway during RTC.

Results

- Average SO item scores of the 958 RTC staff ranged from 3.68 to 4.09 (i.e., between “To a considerable extent” and “To a great extent”).
- CFA supported a 1-factor structure underlying the 9-item scale (**Figure 1**)
- There was a close model fit (CFI=0.97, TLI=0.95, RMSEA=0.07, SRMR=0.03) and significant variance (R^2) for all 9 items (not shown).
- Internal consistency reliability was high (Cronbach’s alpha = 0.95).
- Higher RTC-level SOS scores were not statistically significantly associated with maltreatment events during a youth’s RTC spell or with exit to home-based care, but higher RTC-level SOS scores were statistically significantly associated with fewer interruptions during a youth’s RTC spell ($\beta=-4.29$, 95% CI=-7.01,-0.87, $p<.05$) (**Table 1**). Interruptions include days spent in the psychiatric hospital, in a detention center, or on runaway.

Figure 1. CFA of 1 latent factor underlying the 9-item SOS (n = 958 RTC staff)

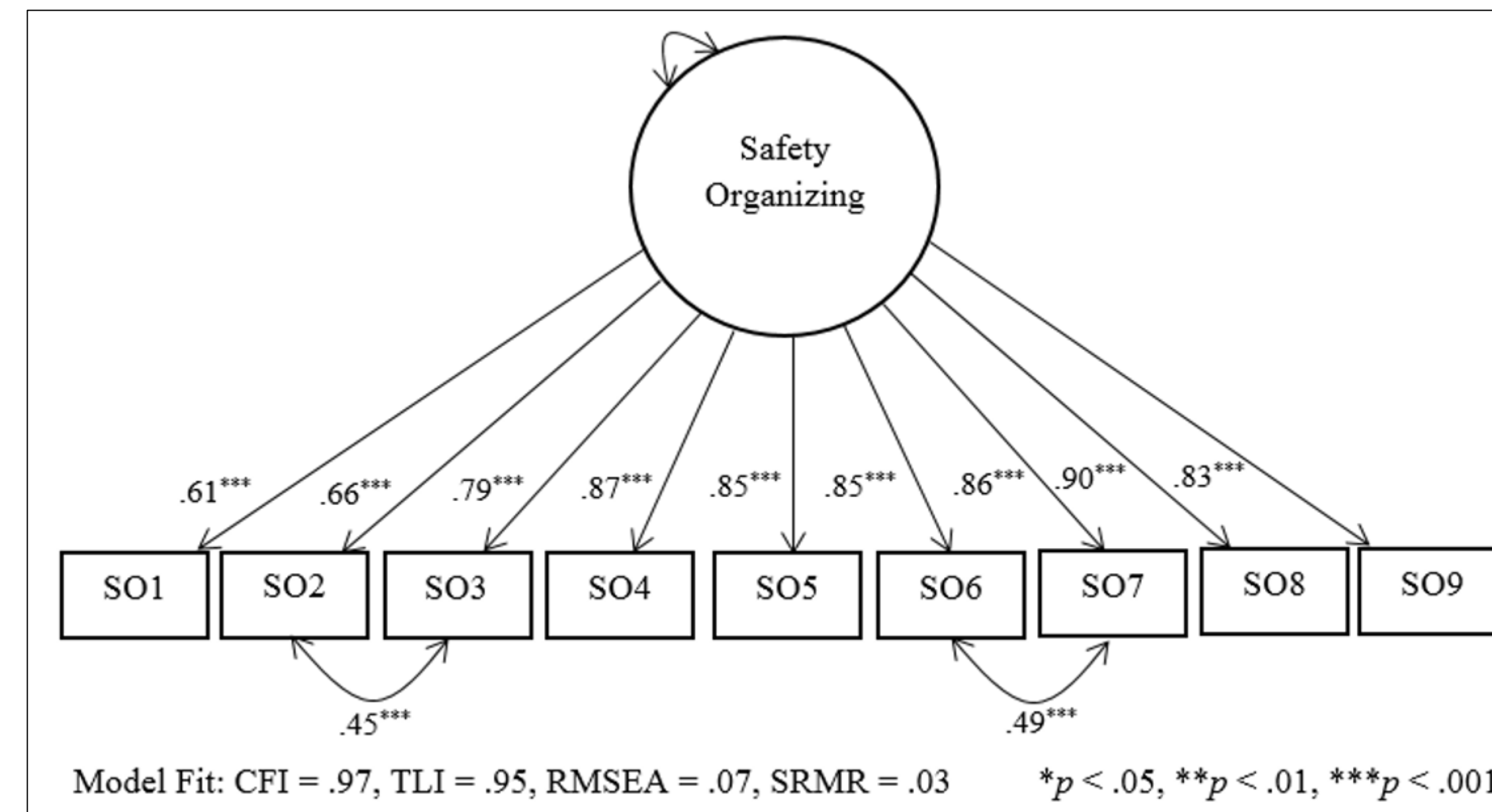


Table 1. RTC-level SOS with child-level outcomes (n = 1,244 RTC spells)

Outcome	Logistic β (95% C.I.)	Poisson β (95% C.I.)
Maltreatment during a RTC spell	4.00 (-6.59, 14.60)	NA
Exit from RTC to home-based care	-0.09 (-4.33, 4.16)	NA
RTC spell interruptions	-3.17 (-7.44, 1.10)	-4.29* (-7.01, -0.87)

Note. All models were adjusted for child’s gender, ethnicity, age (except for the outcome “exist from an RTC spell to home-based care” due to model non-convergence), and number of prior days in DCFS legal custody; 95% C.I. = 95% Confidence Interval; * p < 0.05)

Conclusions and Relevance to Policy, Delivery, and Practice

- Analyses confirm internal consistency reliability and construct validity of mindful organizing as measured by the SOS when used with staff in children’s RTCs.
- Observational results provide preliminary evidence that mindful organizing might be associated with patient outcomes in children’s RTC settings.
- Future research should establish predictive validity for the mindful organizing construct and the SOS in children’s RTC settings.
- Children’s RTC operations and patient outcomes might benefit from regular assessment of and intervention designed to improve mindful organizing as a way to improve child outcomes.

References

1. Weick et al. (1999). Organizing for high reliability: Processes of collective mindfulness. *Research in Organizational Behavior*, 21, 81-123.
2. Vogus et al. (2016). Assessing safety culture in child welfare: Evidence from Tennessee. *Children and Youth Services Review*, 65, 94-103.

Funding and Contact Information

The Illinois Department of Children and Family Services (DCFS) provided data for this study. This study does not reflect DCFS’ views. Do not copy or disseminate this poster without the author’s approval.

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