

## Physician Confidence in Managing Psychosocial Sequelae of Trauma: Impact of the Trauma Collaborative Care Initiative

*Stephen Wegener, PhD; METRC TCCS Investigators*

**Background/Purpose:** Despite improvements in the treatment of severe traumatic injury, survivors often experience physical and psychological challenges for years following injury. The Trauma Survivors Network (TSN) is a program designed to address these challenges. Guided by principles of secondary prevention and collaborative care, the program emphasizes partnership between the patient, physician, and a TSN coordinator (TSN-C), providing services early in the recovery process to prevent the development of common sequelae of trauma, including depression, chronic pain, and posttraumatic stress disorder. The impact of this program on physician confidence in managing the psychosocial sequelae of orthopaedic trauma was evaluated as part of a larger prospective, multisite, cluster clinical trial.

**Methods:** 12 Level I trauma centers participated in the trial: 6 control sites provided treatment as usual, and TSN services were implemented at 6 intervention sites, where a TSN-C provided targeted assessment and coaching activities for orthopaedic trauma patients. Trauma attendings and fellows were educated regarding the TSN services available and provided with patient risk assessments to guide care planning. A survey of all eligible orthopaedic trauma surgeons at the 12 centers was administered prior to the initiation of TSN activities (pre) and again at the end of participant recruitment (post). All orthopaedic trauma attendings and fellows were included at each time point, so respondents changed over time. The 10-item survey measured physicians' confidence in managing psychosocial complications. Survey items were measured on a 5-point Likert scale; responses ranged from "strongly disagree" to "strongly agree." For each item, an ordinal outcome regression model (with a random effect for site and adjustment for physician characteristics) was used to evaluate whether there was a differential effect between intervention and control sites with regard to improvement in physician confidence between the pre and post periods. The effect (beta) from these models is interpreted as the ratio of the odds ratio of higher level of confidence in the post versus pre periods for intervention versus control physicians (ratios greater than one favor the intervention group).

**Results:** 81 and 74 surgeons completed the pre and post surveys, respectively (91% response rate). At both time points, the age and gender breakdown between intervention and control physicians were comparable. However, physicians in the intervention sites tended to be more experienced in terms of number of years board-certified and years in current position than those in the control sites. There was a statistically significant improvement between the pre and post assessment for intervention versus control physicians in their confidence to make referrals (beta = 5.02, 95% confidence interval [CI]: 1.49-16.98) and helpfulness of support personnel (beta = 4.85, 95% CI: 1.44-16.33). The effect estimates favored the TSN group for 7 of the 8 remaining confidence items (Table 1).

**Conclusion:** Based on surgeon self-report, the TSN provided in the context of a collaborative care model appears to benefit providers of care to orthopaedic trauma patients by increasing their perceived access to referrals and personnel to assist in managing psychosocial complications.

The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.

Table 1: Summary of results

		Percent Agree or Strongly Agree				
		Control		Intervention		
Survey Item\Period		Pre	Post	Pre	Post	Adjusted* Estimate (95% CI)
Confidence managing psychosocial complications	No time to ask about psychosocial issues	21	15	26	25	0.53 (0.16-1.79)
	Strategies to encourage pts to seek help	74	79	69	92	3.17 (0.83-12.03)
	Strategies to help pts change	43	47	45	67	2.22 (0.66-7.40)
	<b>Confident can make referrals</b>	<b>54</b>	<b>41</b>	<b>38</b>	<b>65</b>	<b>5.02 (1.49-16.98)</b>
	Ready access to information	32	24	22	44	2.40 (0.74-7.81)
	Ways to talk to pts to encourage action	56	59	43	70	2.85 (0.82-9.90)
	Ready access to personnel	37	35	29	52	2.68 (0.83-8.67)
	<b>Support personnel can help</b>	<b>55</b>	<b>61</b>	<b>36</b>	<b>60</b>	<b>4.85 (1.44-16.33)</b>
	Ready access to mental health svcs	53	34	35	48	3.08 (0.92-10.28)
	Mental health svcs to can meet pt needs	46	33	34	41	2.78 (0.82-9.38)

\* Ratio of the odds ratio of higher level of agreement (with the survey item) in the post vs. pre periods for intervention vs. control physicians (ratios greater than one favor the intervention group).