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[Return to Current Issue](#)

Traumatic Brain Injury: Exploring the Role of Cooperative Extension in Kansas Communities

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Abstract: *TBIoptions* helps survivors of traumatic brain injury and their families identify, locate, and contact helpful organizations in their local communities to promote successful living. This article discusses the role of county agents in the program and the support offered by community partners. Results of pre- and post-surveys for both groups are reported. The research provides information regarding changes in knowledge and noteworthy outcomes for participating agents and community partners. Through engagement in the issue of traumatic brain injury, Extension is better positioned to meet the needs of survivors, family members, and caregivers within Kansas.

Introduction

Traumatic brain injury (TBI) is a current issue and has the potential to affect our communities. Approximately 1.7 million people sustain a TBI each year, with children, adolescents, and adults aged 65 years and older most at risk (Faul, Xu, Wald, & Coronado, 2010). About 20% of service members returning from deployment in Iraq or Afghanistan have potentially experienced a TBI (Tanielian & Jaycox, 2008).

Survivors need a range of services in their local communities to address potentially long-lasting

impacts in cognition, behavioral functioning, and physical and emotional well-being (Katz, Zasler, & Zafonte, 2007). Individuals may not recognize needs until presented with the challenges of daily living, or they may not be able to identify helpful services (Corrigan, 2001). Extension professionals are uniquely positioned to help individuals who have experienced a TBI, their family members, and their community.

The provision of disease- or condition-specific educational programming has a solid foundation within the Cooperative Extension Service. Traumatic brain injury appears to represent new subject matter, as evidenced by only one article in a recent keyword search within the *Journal of Extension* (July, 2011).

Response to the Need

Kansas is significantly affected by TBI as it is above the national rate of hospitalization and has the highest fatalities rate of 33 reporting states (Johnson, Thomas, Thomas, & Sarmiento, 2009). Academic and Extension faculty at Kansas State University formed a partnership to use the strengths of the Kansas State University Agricultural Experiment Station and Cooperative Extension Service to create an interactive, Web-based program that links survivors and family members to potentially helpful resources in the local community (*TBIoptions: Connecting to Resources*).

Twenty-eight agents within the unit of Family and Consumer Sciences initially participated in the program. They were expected to attend trainings, conduct outreach efforts in their local communities, and enter collected information into a database. Their counties received a stipend of \$500.

Agents were paired with 27 local community "partners" (e.g., survivors, family members, or professionals) with knowledge of TBI. (One community partner worked with two county agents). Partners were expected to participate in trainings and to provide support to the agent. Partners received a stipend of \$150.

Design and Methods

We used separate, Web-based, pre- and post-assessment questionnaires to gather data from each group (approved by the Institutional Review Board at Kansas State University). Invitations to participate included a Web-based link. These were sent to each agent and community partner via email prior to program implementation and after work completion. Questionnaire responses were anonymous and voluntary.

Our main interest was in gauging knowledge gain for agents and community members. We inquired about their familiarity with general community resources and those relevant to TBI. We asked that they indicate their reasons for participating in the *TBIoptions* program, their most important outcomes, and if they would recommend participation to others.

Results

County Agents

In the pre-participation survey, 88% reported no formal training or education about TBI, and 75% indicated no recent contact with people regarding the topic of TBI. Lack of knowledge about TBI also was apparent in ratings of confidence and familiarity with resources important for people who experience TBI (Table 1). In the post-participation survey, contacts with people regarding the topic of TBI changed to more than 10 over a 3-month period for two-thirds of the agents. Changes also occurred in agents' ratings of their knowledge (confidence) and ability to identify important resources. Overall, 100% of participating county agents recommended participation to other county agents.

Table 1.
County Agents' Ratings of Knowledge About TBI and Community Resources

Questions	Average Scores (Nine-Level Likert Items*)	
	Pre-Participation (N = 24)	Post-Participation (N = 19)
How confident are you in your knowledge about traumatic brain injury?	2.3	5.3
In general, how would you rate your familiarity with local community resources?	6.4	6.9
How would you rate your ability to identify community resources for people with traumatic brain injury?	4.6	7.0
*Note. "1" represented "no confidence" or "not strong" and "9" represented "extremely confident" or "very strong" rating		

Community Partners

In the pre-participation survey, 75% represented professionals who worked with survivors. Although the majority (83%) conveyed familiarity with Extension, most (58%) had no direct contact within the past 3 months. In the post-participation survey, the majority (61%) represented professionals who work with survivors. Community partners rated their familiarity with community resources (in general or specific to TBI) in a similar manner (Table 2). Overall, 90% recommended participation in TBI options to future community partners.

Table 2.
Community Partners' Ratings about Community Resources

Questions	Average Scores (Nine-Level Likert Items*)	
	Pre-Participation (N = 12)	Post-Participation (N = 18)
In general, how would you rate your familiarity with local community resources?	6.3	6.9
How would you rate your ability to identify community resources for people with traumatic brain injury?	6.8	7.1
*Note. "1" represented "not strong" and "9" represented a "very strong" rating		

Discussion

Extension educators act as change agents in their communities (Duttweiler & Dayton, 2009). The subject of TBI was new for these agents, and results suggest that participation positively affected their knowledge. Agents also demonstrated an increase in their stated ability to identify community resources for individuals with TBI, and the majority of the agents stated that learning more about TBI was an important outcome, as was learning more about their local community resources (Table 3).

Qualitative comments from the post-survey reinforced knowledge as an outcome. One agent shared that the experience was, "Life changing! The...project has helped me become aware of a population that is in need of information and community resources that Extension was not helping connect." Another said, "This project provided an opportunity for me to learn more about TBI survivors and their needs and be able to share this knowledge with other groups/audiences via my Extension educational experience." Raising awareness about TBI is important in order to assist survivors in becoming integrated into the community (Rotondi, Sinkule, Balzer, Harris, & Moldovan, 2007).

Community partners provided support to the agent, a function that appeared to contribute to a different experience based on their top reasons to participate and important outcomes (Table 4). This support role was demonstrated in that helping to educate others about TBI was the partners' most frequently selected reason for participation and most frequently selected outcome. One community partner commented: "It was brief, but I learned more about Research and Extension than I had ever known before." Generally, community partners reflected more discrepancy between selected reasons for participation and outcomes than agents, which may relate to a less defined role for participation and understanding of program objectives.

Table 3.
County Agents' Top Reasons to Participate and Top Outcomes from Their Participation Listed by Their Frequency of Selection

Pre-Participation Reasons	Percentage of Agents	Post-Participation Outcomes	Percentage of Agents
Contribute to a statewide initiative	83	Learn more about TBI	95
Understand how to connect individuals to appropriate community resources for TBI	83	Contribute to a state-wide initiative	79
Learn more about TBI	79	Learn about local community resources	79
Increase community network	71	Have community included with <i>TBIoptions</i>	74
Have community included with <i>TBIoptions</i>	63	Understand how to connect individuals to appropriate community resources for TBI	63
Learn about community resources	63	Increase community network	63

Table 4.
Community Partners' (CPs) Top Reasons to Participate and Top Outcomes from Their Participation Listed by Their Frequency of Selection

Pre-Participation Reasons	Percentage of CPs	Post-Participation Outcomes	Percentage of CPs
Opportunity to help educate others about TBI	92	Opportunity to help educate others about TBI	78
Contribute to a state-wide initiative about traumatic brain injury	83	Learn about the role of County Extension in their community	72
Increase public attention about the topic	83	Have the community represented in the	67

		program	
Understand how to connect individuals to appropriate community resources for TBI	83	Contribute to a state-wide initiative about traumatic brain injury	67
Help others enhance their comfort level with TBI	75	Increase public attention about the topic	44
Have community included with TBIoptions	67	Understand how to connect individuals to appropriate community resources for TBI	44

Conclusion

The TBIoptions program engaged agents in their counties with a subject that was unfamiliar and connected them to partners with knowledge about TBI. This model represents a new role for Extension in communities by addressing the needs of survivors and family members within Kansas. The results have potential implications for Extension systems interested in attending to this emerging national issue.

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