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## **PREDICTORS OF AUTONOMY SUPPORT AT DIABETES SUMMER CAMP: A SELF-DETERMINATION THEORY APPROACH**

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Diabetes is considered to be one of the most psychologically and behaviorally demanding chronic illnesses facing adolescents (Cox & Gonder-Fredrick, 1992). To control the disease more effectively, adolescents must learn to undertake the management of their diabetes themselves (Mensing, et al., 2000; Ruggiero, et al., 1997). Self-determination theory (Ryan & Deci, 2000) was used as a foundation to explore the mechanisms, within a summer camp, that led to increased perceptions of autonomy support. Research shows autonomy support to be a critical prerequisite for increased autonomous behavior

With over 350 specialty camps serving youth with diabetes (Diabetes Education and Camping Association, 2005), summer camp has long been considered an effective modality for youth with medical related issues to learn, grow, and deal with their illnesses (Winfree, Williams, & Powell, 2002). By using the active camping environment, diabetes camps, specifically, are an “invaluable way for children with diabetes to gain skills in managing their disease ...” (ADA, 2004, p. 131). However, little empirical evidence has been able to demonstrate how and why these benefits occur in camp settings.

Data were collected from 66 campers participating in a 6-day diabetes summer camp located in the Sawtooth mountains of Idaho during 2004. An eight item researcher created instrument, The Activity Specific Autonomy Support Questionnaire (ASASQ), was created to provide insight into perceptions of autonomy support upon completion of camp activities. A two-level hierarchical linear modeling was used to analyze the data. Level 1 consisted of experience predictors (group size, nature of competition, instructional approach, and activity type) and Level 2 consisted of participant predictors (age, sex, and diabetes duration). Finally, an exploratory analysis was conducted to determine possible cross-level interactions between experience and participant predictors.

Analysis resulted in a significant unconstrained model. Nature of competition and instructional approach were found to be significant, indicating that a noncompetitive and camper-centered instructional approach, respectively, produced increased perceptions of autonomy support. Sports, games, and athletics were found to be significant as compared to the arts, suggesting that the activity type plays a role in increasing perceptions of autonomy support. Older campers were found to have increased perceptions of autonomy support. Finally, the cross-level interactions between nature of competition and instructional approach, by sex, were significant, indicating that females were negatively influenced by competitive activities and leader-centered instructional approaches, respectively.

The findings support diabetes summer camps as an effective modality through which to influence campers' perceptions of autonomy support. Practitioners may use the information to create programs that increase perceptions of autonomy support that have been shown previously

to influence self-management of diabetes (Williams, Freedman, & Deci, 1998). Future camp research should continue to examine the underlying mechanisms that may lead to more developmental camp programming. While self-determination theory provides one viable model, other theories should be examined, and research should work to further the understanding of participant, experience, and delivery components that work to either support or thwart the attainment of target program outcomes for camp.

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