Title: Participation in Recreational Activities Buffers the Impact of Perceived Stress on Quality of Life in Adults with Autism Spectrum Disorder

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Introduction: As the number of adults with autism spectrum disorder (ASD) grows, the need to identify modifiable correlates of positive outcomes and quality of life (QoL) gains in importance. Research indicates that perceived stress is significantly correlated with QoL in adults with ASD (Hirvikoski & Blomqvist, 2015; Hong et al., 2016). Studies in the general population of individuals without disabilities indicate that greater participation in social and recreational activities may lessen the negative impact of perceived stress on well-being (Cohen & McKay, 1984), and this association may also hold among adults with ASD. We hypothesized that: (1) perceived stress would be negatively associated with QoL; and (2) higher frequency of participation in social activities and recreational activities would moderate the relationship between perceived stress and QoL.

Methods: Data to address our hypotheses were collected prospectively from 60 adults with ASD aged 24-55 and their mothers who were part of a large, longitudinal study of 406 adolescents and adults with ASD and their families. Measures assessed perceived stress (Perceived Stress Scale), QoL (brief version of the World Health Organization Quality of Life assessment), and self- and mother-reported social activities and recreational activities. Hierarchical multiple linear regression analyses first explored the buffering role of self-reported social activities and recreational activities on the association between perceived stress and QoL. Then, follow-up analyses used the same technique to investigate the impact of mother-reported social activities and recreational activities on the association between perceived stress and QoL.

Results: Overall, adults with ASD reported that they participated in slightly less than one social activity ($M=0.82$, $SD=0.90$) and about three recreational activities ($M=2.98$, $SD=.89$) per week, and mother-report data independently confirmed these patterns. Results of hierarchical multiple regression analyses revealed a significant, positive main effect of perceived stress on QoL, $B=-8.07$, $t(53)=-3.77$, $p<.01$, $sr^2=.18$, when controlling for age, sex, and ID status. Results revealed that recreational activities buffered the relationship between perceived stress and QoL, $B=5.88$, $t(51)=2.49$, $p=.02$, $sr^2=.07$, such that for individuals with higher levels of participation in recreational activities, the negative effect of perceived stress on QoL was lessened. Our findings related to mother-reported social activities and recreational activities mirrored our adult self-report findings.

Discussion: Findings corroborate a growing body of literature that indicates that high perceived stress is a problem for a subgroup of adults with ASD (Bishop-Fitzpatrick, Minshew, Mazefsky, & Eack, in press; Hirvikoski & Blomqvist, 2015; Hong et al., 2016) that needs to be addressed through targeted treatment. Our findings also suggest that interventions and services that provide supports and opportunities for participation in recreational activities may help adults with ASD manage their stress and lead to better QoL. Of note, much of the ASD literature suggests that interventions should target core autism symptoms in order to help individuals with ASD to develop social networks. However, participation in social activities was not associated with QoL in our analysis. Thus, interventions that offer opportunities for participation in recreational activities, even if those activities do not provide explicit opportunities for socialization, may help adults with ASD manage their stress and, in turn, feel more satisfied with their QoL.

References/Citations:


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