

**Lay abstract:** Friendships and social participation are important for adolescents and adults with intellectual disabilities, contributing to the quality of their lives. In this study, we examined the friendships, family social impact, and social and recreational activities of adolescents and adults with intellectual disabilities from two groups: 81 individuals diagnosed with fragile X syndrome (a genetic condition that is a common cause of intellectual disability) compared with 226 individuals diagnosed with autistic disorder. Quality of life (measured in terms of friendships and social participation) was low for individuals with fragile X and those with autism. However, individuals with fragile X had more friendships and a less negative social impact on the family than individuals with autism. Individuals with fragile X were also more likely to have a hobby and to spend time with friends and neighbors than were individuals with autism. Across both groups, adolescents spent less time with relatives, friends and neighbors, and more time exercising, than did adults. The findings from this study suggest that future work is needed to understand how to promote friendships and social participation in individuals with intellectual disabilities.