

Title: Predictors of Compliance with Maternal Requests for Action by Adolescent Males with Fragile X Syndrome

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Introduction: Requests for action are an important parenting strategy through which parents relay information about social expectations, aid in the development of adaptive behaviors, and promote independence in their children. These requests encourage children to engage in new or continuing positive behaviors or they may help terminate unwanted or maladaptive behaviors. Requests for action may be particularly important during adolescence when parents seek to foster increasing autonomy in their children. However, indirect requests for action may be difficult to comprehend and comply with because the intended meaning of indirect requests is not explicitly stated and they often use non-literal language (Pinker, Nowak, & Lee, 2008). As such, individuals who have language delays and/or impaired social skills, such as males with Fragile X Syndrome (FXS), may demonstrate reduced behavioral compliance when given an indirect request for action (Ledbetter & Dent, 1988). This study examined the extent to which language, social skills, maladaptive behavior, autism symptomatology, and request directness predict compliance with maternal requests for action by adolescent males with FXS.

Method: Thirty-six adolescent males with FXS and their biological mothers participated in this study. Adolescents ranged from 12.4 to 18 years of age, with an average age of 16.13. Mothers and adolescents completed a 10-minute videotaped snack task together. Each video was coded behavior-by-behavior for the mother and adolescent. From this, the number of maternal requests for action and the adolescent's compliance with each request were determined. Each request for action was judged as direct or indirect and compliance was judged as compliant, non-compliant, or no opportunity to comply. A composite language and cognition score was derived for each participant based on the PPVT-4, the EVT-2, the Leiter-R, and the mean length of utterance in morphemes (MLUm) and number of different words (NDW) from the 10-minute video. Social skills and maladaptive behavior were assessed through the VABS-II, and autism symptomatology was assessed using the CARS2-ST.

Results: The effect of language and cognition, social skills, maladaptive behaviors, and autism symptomatology on adolescent compliance was examined in two ways. First, correlations between average compliance (# of compliant actions/total # of requests for action) and child characteristics were explored. Average compliance was positively and significantly associated with language and social skills. Average compliance was inversely and significantly correlated with autism symptomatology. Average compliance was not associated with maladaptive behaviors and was marginally associated with request directness.

Next, binary multilevel regression models were used to predict the likelihood of compliance following a request. The number of requests for action did not predict compliance, nor did request directness. Individually, language, social skills, and autism symptomatology each predicted probability of compliance such that higher ability and lower autism symptomatology were indicative of higher likelihood of compliance. However, in a composite model, social skills and autism symptomatology were not predictive of probability of compliance above and beyond the effect of language ability.

Discussion: Adolescent males with FXS were largely compliant with maternal requests for action, regardless of request directness. Although the group demonstrated high levels of compliance, individual differences in language and social skills accounted for variation in compliance. Findings suggest that adolescent males with FXS who have lower language and social skills or who have elevated autism symptomatology may demonstrate reduced likelihood of compliance following maternal requests for action. Additional individual characteristics and/or contextual demands may further predict compliance, so future research will need to identify and examine other predictors. This research highlights the need to determine how parents of adolescents with FXS encourage development of independence and adaptive behavior in order to identify best practices to support parents and their adolescent children with neurodevelopmental disorders.

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