

Title: Impact of acute and chronic early life stress on social interaction, stress-enhanced fear learning, and anxiety during adolescence and adulthood

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Early life stress has been shown through various experiments and settings to have long-term effects on emotions, cognition, and behavior. One important aspect of behavior can be studied through social interaction tests in rats. A direct comparison of acute versus chronic early life stress on adolescent and adult social behavior has not been studied. The goals of our current research are to understand whether exposure to acute and/or chronic early life stress will show decreased social interaction, increased anxiety, and/or stress-enhanced fear learning (SEFL) during adolescence and/or adulthood. Acute early life stress will be induced using 15 footshocks in one session on PND 17. Chronic early life stress will be induced using a limited nesting and bedding model on postnatal days (PND) 2-9. Social interaction, anxiety, and SEFL will be studied in adolescent and adult rats through the social interaction (SI) test, elevated zero maze (EZM), open-field (OF) test, and SEFL procedures. We hypothesize that both acute and chronic early life stress will result in decreased social interaction during both adolescence and adulthood. We further hypothesize that only the chronic early life stress will increase anxiety. Finally, we anticipate that the acute early life stress will produce SEFL in adulthood (as we and others have shown many times), but it is unclear from the existing literature whether chronic forms of early life stress will lead to subsequent increases in fear learning and responding.

Biography

Katelyn Scheive is completing her two undergraduate degrees in psychology and integrated social studies education from Miami University (Ohio). She intends to teach for a few years before pursuing graduate school to further her study of education and psychology.