ABSTRACT

Sex differences in pain are well-studied in the adult literature. Women generally demonstrate greater sensitivity and response to painful events, though the strength of the effect differs based on the type of pain and social context. The role that sex (i.e., biological/physiological characteristics of men and women) and gender (i.e., behaviours considered socially appropriate for men and women) play in children’s pain has not been systematically examined. Moreover, the role of parent and child sex in parental modeling of pain behaviours on children’s pain has not been investigated. The present dissertation addressed these gaps through: 1) a review of the existing literature on sex differences in children’s experimental pain; 2) a laboratory-based study to examine the role of sex in the impact of parent pain expression on child pain; 3) an exploratory investigation of the role of parent and child gender in children’s pain; and 4) a critical analysis of sex and gender research in pediatric pain. A systematic review and meta-analysis of sex differences was conducted of 81 studies of experimental pain in healthy children and adolescents. Overall, no sex differences were observed with the exception of cold pain intensity, where girls reported significantly higher pain intensity than boys in studies where mean participant age was >12 years, and heat pain threshold, where boys demonstrated significantly higher pain thresholds than girls. To investigate the role of sex in children’s learning of pain behaviours from their parents, 168 parent-child dyads (6-8 year old children; 50% fathers, 50% sons) completed a laboratory-based study where children observed their parent’s reaction to the cold pressor task, and then completed the pain task themselves. Unbeknownst to their child, parents were randomly assigned to exaggerate or minimize their facial expression, or act naturally during the pain task. Children whose parents exaggerated their expression of pain reported greater anxiety prior to completing the pain task. Additionally, girls who observed their parent exaggerating their pain response self-reported greater overall pain intensity than boys in the same condition. An exploratory analysis of gender found that anxiety in girls was predicted by their self-reported femininity. This research highlights that some sex differences may be present during childhood and adolescence, that parental modeling of pain behaviours may impact their children in a sex-specific way, and that gender is associated with certain pain-related responses.