

Maternal and Child Emotional Regulation in Paediatric Chronic Pain

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STATEMENT OF AUTHORSHIP

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

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All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees (where required).

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Date

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ABSTRACT

Pain is influenced by biological, social, emotional and cognitive factors. Emotions are not simply a consequence of pain but rather a fundamental part of the pain experience. In addition, the social context cannot be isolated when constructing the meaning of the child's pain, and in understanding the influence of mother-child interactions on children's physiology. This research consists of two studies, study one investigated the relationship between anxiety, depression and physical functioning in children and adolescents experiencing chronic pain. The participants were 73 children and adolescents who were referred to either the Children's Pain Management Clinic at the Royal Children's Hospital or the Sydney Westmead Children's Hospital aged between 7-18 years old. The results indicated that these young people were reporting anxiety and depression within the normal range with significant anxiety and depression levels both below prevalent rates found in the normal population. Furthermore, depression but not anxiety was associated with increasing levels of physical disability in children and adolescents. This led to the investigation of the relationship between maternal emotions on children and adolescents' anxiety, depression, somatic symptoms and physical functioning in children and adolescents experiencing chronic pain.

Study two investigated the association of maternal and child emotions in children and adolescents with chronic pain. Participants included 62 mothers and 62 children and adolescents between the ages of 7-18 years (M=13). Mothers' emotional distress (empathy, emotional involvement, and distress) was examined as a significant factor to be associated with children's pain sensitive temperament and functional outcomes (anxiety, depression, somatisation, and physical functioning). Children's perceptual sensitivity and avoidance of sensation, which are components of children's pain sensitive temperament, were investigated in relation to children's ability to regulate emotions. The association between maternal and child emotional regulation and children's functional outcomes was also explored. Mothers completed questionnaires assessing children's somatisation, their own difficulties with having a child with persisting pain and an empathy scale. Mothers also

completed a semi-structured interview by Katz and Gottman (1991) the Meta-Emotion Interview which discusses mothers' awareness of their own and their child's emotions, mothers acceptance of their own and their child's emotions, the regulation of their own and their child's emotions and coaching of their child's emotions. Children and adolescents completed questionnaires measuring anxiety, depression, emotional involvement, somatisation and pain sensitive temperament. The results indicated low maternal emotional regulation was significantly associated with children's depression, anxiety and somatisation scores, whilst children's emotional regulation was associated with children's anxiety and depression, but not with somatisation scores. Maternal emotional distress was associated with children's pain sensitive temperament, emotional distress and reduced physical functioning. Furthermore, emotional regulation in children was associated with children's pain sensitive temperaments. It is proposed that young people with chronic pain may have a biological vulnerability to respond to stress and traumatic events as pain, and pain related symptoms. This biological sensitivity may be associated with children's threshold of pain, whereby children's perceptual sensitivity may be associated with reporting of somatic complaints. Thus, maternal emotions and social factors may be associated with children's somatosensory processing and the chronic pain experience.