

## When are we going to be settled down and know Iraq is our haven

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More than one decade of conflict has led to widespread human suffering and population displacements in Iraq. Recent studies of the general population have found that internally displaced people had high levels of mental health problems including anxiety (45-55%), major depression (30-40%) and posttraumatic stress symptoms (53-60%). However, no study has been conducted to investigate the psychological consequences and mental health effects following displacements among children in this area. This study aimed to address this gap in literature by investigating the prevalence of PTSD symptoms and behavioral and emotional problems. The sample comprised 106 children aged 4-8 years. They were recruited randomly from three camps (1 in Baghdad and 2 in Kurdistan-north of Iraq). Ninety-seven children with no displacement experience constituted the control. In regard to their post-displacements trauma and behavioral problems, children were assessed by parental reports using the Young Child PTSD Checklist (YCPC), the Behavior Checklist (BCL) and the Strengths and Difficulties Questionnaire (SDQ). The results showed that children were found to experience intrusive thoughts and display avoidance behavior. YCPC revealed that 54, 47 and 23% had full, partial and no-PTSD respectively. The severity and total number of traumatic events independently predicted total BCL and SDQ scores. There were significant differences between the exposed group and the control on all YCPC, BCL and SDQ scales. The clinical and research implications of these conclusions are discussed.

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## Gender-dimorphic expression of Foxp1 in the developing mouse brain and its impact on sex-specific communication

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Autism spectrum disorder (ASD) as well as speech and language deficits are four times more prevalent in males than females. The reason for this is still unknown, although it has been suggested that sex-specific regulation of distinct genes may promote the development of ASD. The human Foxp1 gene represents an interesting candidate as Foxp1 mutations have been associated with intellectual disability, speech and language deficits and ASD in predominantly male patients. The Foxp1 gene belongs to the family of fork head box (FOX) transcription factors and is widely expressed in the developing and mature brain. Homozygous loss of Foxp1 is embryonically lethal in mouse due to cardiac defects. To investigate the role of Foxp1 in neuro-developmental processes, we generated Nestin-Cre (Foxp1<sup>-/-</sup>) mice with conditional loss of Foxp1 in the brain. We could demonstrate that Foxp1 is crucial for the development of the striatum and hippocampus but also for normal learning, memory and social behaviors. We also observed that male Foxp1-KO animals exhibit a more severe phenotype and die earlier than female Foxp1-KO mice. To investigate whether this sexual dimorphic phenotype of Foxp1-KO animals is caused by gender-specific expression and function of Foxp1, we explored the differences in the expression of Foxp1 in male and female WT animals at six different stages of brain development in the cortex, striatum, hippocampus and cerebellum. We also examined the expression level of Foxp2, the closest relative of Foxp1, which is associated with language disorder. Foxp2 is known to form hetero-dimers in those tissues where it is co-expressed with Foxp1, such as the striatum. Our study revealed sexually dimorphic expression of Foxp1 and Foxp2 in the striatum and cortex at E 17.5 and P 7.5. Both the cortex and striatum are known to be crucial for language and communication. Interestingly, at about E 17.5 testosterone levels peak in male embryos suggesting that the observed sex-dimorphic expression may be caused by a gender-specific androgen or estrogen signaling.

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