Evaluating the behavioral effects of early life stress in mouse models and potential policy implications

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Introduction
• Early life stress has been linked to increased risk of psychiatric disorders and changes in the brain.
• Mouse models help us understand this better.
• Violence as a stressor increases the risk of the mental health burden for countries.
• Latin America is the second most violent region in the world, but overall spending in mental health is only around 2%.

Objective of Research
To advance my Neuroscience research by analyzing behavioral differences between early life stressed mice and controls, and understand potential policy implications.

Methods
• Behavioral analysis of control vs. stressed mice
• Engaged in lab meetings to understand scientific tools and developments in the field.
• Literature review on the interactions between violence and mental health.

Results and Reflection
• Controls and stressed mice do show significant differences in their behavioral patterns during the novelty suppressed feeding test.
• There is an unmet need for mental health interventions and programs in Latin America.
• Cognitive behavioral therapy based afterschool programs in violent neighborhoods in El Salvador have extensive positive impacts in emotional and stress regulation.
• Neuroscience research can be a powerful tool to not only explain the need for mental health interventions, but also used to evaluate the impact of these.

Discussion
• Behavioral differences between stressed vs. control mice hint at how early life stress can increase risk of psychiatric disorders.
• Mental health policy interventions can go beyond treatment and aim to provide people with tools to be better equipped to handle stress responses.

Questions
• How does the current pandemic, through its direct effect on stress and increase in domestic violence, affect the urgency in the implementation of mental health interventions?

Conclusion
• Early life stress has an impact on behavioral outcomes in mice. This underscores the need to implement intervention programs that aim at mental health treatment but also prevention, especially in countries that are at higher risk.

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