

Effect of psychosocial stress and elevated cortisol on Prospective memory and Temporal choices

The present study attempts to understand the relationship between psychosocial stress and temporal choices in decision making. Justification for the study can be stated as:

- Cortisol strongly affects the activities of dopamine neurons via glucocorticoid receptors in reward-processing brain regions, which are main targets of addictive drugs.
- Stress hormones considerably interact with the actions of addictive drugs on the glutamate receptor mediated neurotransmission in dopaminergic neurons via glucocorticoid receptors
- So, it is of interest to examine the relationship between cortisol and time-discounting rate, for elucidating neuroendocrine correlates of inter-temporal choice in humans.

Applications:

Results from the study will add to the theoretical understanding of stress and decision making.

- In future work will help throw light on impulsive behavior of decision making in people with attention deficit hyperactivity disorder, antisocial personality and psychopathology and substance abuse.
- The study will add to the theoretical understanding of the relationship between cortisol levels and time-discounting rate, for elucidating neuroendocrine correlates of inter temporal choice in humans.

Psychosocial stress and prospective Memory:

Forgetting of intentions (such as to take one's medication) is the most frequent everyday memory failure. Many studies on retrospective memory implicate impaired memory performance after exposure of psychosocial stressor. But very limited studies has looked into the possible consequences psychosocial stress might exert on memory for intentions (i.e., prospective memory) revealing only time based prospective memory being effected by stress. The present study attempts to examine effect of psychosocial stress on event based prospective memory and evaluate the role played by emotions in such conditions.