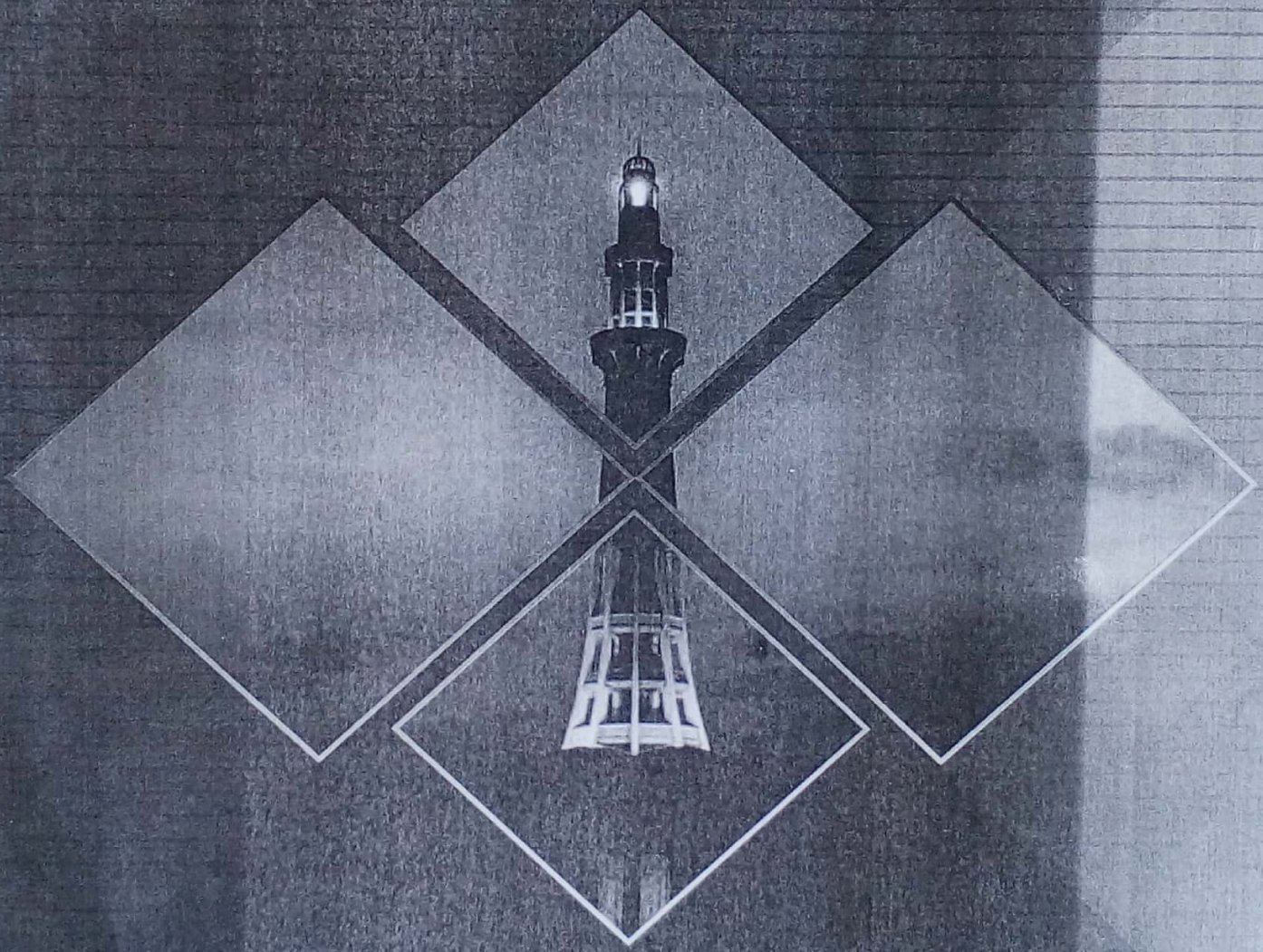
SAAP VI & PPS 16 BIENNIAL CONFERENCE 2018

ABSTRACT BOOK

Enhancing Academic and Research Collaboration in South Asia



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Abstracts for Oral Presentatio

Oral Presentation 01

Association of Executive Functions and Level of Stress among Adolescents in Colombo District Sri Lanka

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Background: Adolescence is a period in life where emotional and mental maturation occurs to develop an adult brain. Executive functions (EF) mediated by the prefrontal cortex mature during adolescence. Visuo-Spatial Working Memory (VSWM) and Inhibition are executive functions which may be affected by stress. The association of levels of EF and stress levels during the adolescent period are unknown.

Objective: The objective is to determine the association between executive functions and stress levels among adolescents in Colombo District Sri Lanka.

Methodology: A cross sectional study was conducted on adolescents aged 11 to 13 years (n = 162). Psychosocial adversity was assessed by Adolescent Psychosocial Adversity Questionnaire (APSQ). VSWM and inhibition were assessed by executive function tasks – Pig house and Stroop Colour Word Test (SCWT). Higher the scores of VSWM and inhibition higher the VSWM and poorer the inhibitory control.

Results: The mean age of the study sample was 11.82 years (SD ± 0.40) with 73.5% of boys. Mean APSQ score was 22.80 (SD ± 2.66). Mean scores for VSWM and inhibitory control was 18.0 (SD ± 8.15) and 13.19 (SD ± 7.44) respectively. A significant negative linear correlation was observed between stress score and SCWT score at the 90% level ($r = -0.152$, $p = 0.05$).

Conclusion: Stress scores and inhibitory control scores were positively linearly associated. Increased level of stress increases, the ability to inhibit irrelevant information. The existence of some stress enhances inhibitory performance of adolescents.

Future Prospects: Measures to identify adolescent stress levels and reduce excessive stress levels are essential for better executive function development.

Key words: stress, executive, adolescents