

PROFILE OF EXERCISE HABIT STRENGTH AND EMOTIONAL DISTRESS IN ADOLESCENTS

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Stress is a common experience in human life. Despite its common nature, failure to cope with it may lead to adverse physical and mental consequences. Among adolescents, school is rated as one of the highest sources of stress. In order to ensure optimal mental health within this population, early exposure to appropriate coping strategies is crucial in order to prevent the development of clinical psychological disorders such as depression.

The benefits of habituated physical activity and psychological well-being have been consistently acknowledged. Indeed, there is growing evidence indicating association between PA habit with higher level of perceived competence and lower level of anxiety and depression. Furthermore, habituated exercise was also found to moderate the adverse effects of stress on individual health (Hashim, Freddy, Rosmatunisah, 2012).

The formation of exercise habit has received a growing attention in recent time. In order to further the understanding of habit formation, habit theorists have suggested that habit should be viewed as a process oriented construct. In exercise setting, strong habit is associated with (a) the urge to exercise when exposed to exercise cues; (b) minimal conscious effort for initiation and execution of exercise behaviour; (c) feeling guilt when exercise is not performed; and (d) planned and routinized exercise involvement (Grove & Zillich, 2003).

Understanding how these processes relate to the strength of exercise habit, and consequently the psychological health is important in order to facilitate the strength of exercise habit.

Methods and Material

The sample consisted 4100 adolescents aged 10 to 17 years old drawn from multiple studies investigating the association between exercise motivation, emotional distress, exercise habit, cognitive and performances within these age groups. The sample was represented by

47% female and 53% male. In terms of ethnicity, 80% were Malays and 20% were Chinese and Indians.

Data were collected using a number of questionnaires including Physical activity questionnaire for Older Children (PAQ), Exercise habit strength questionnaire (EHSQ), Theory of Planned behaviour questionnaire, and Depression, Anxiety, Stress Scale – 21 (Ajzen, 2001; Grove & Zillich, 2003, Kowalski, Crocker, & Faulkner, 1997).

PAQ is a self administered 7-day recall questionnaire that measures general moderate to vigorous physical activity during school year. It provides a summary of physical activity score derived from nine items, each scored on a 5-point Likert scale. EHSQ is an 18-item measure of habit strength. It consists of four subscales (automaticity, negative consequences, stimulus cue and patterned action) representing the processes associated with the strength of exercise habit. TPB questionnaire is a measure of intention and its predictors (attitude, perceived behavioural control and normative comparison). Each question is attached to a 7-point Likert scale. DASS-21 is a measure of emotional distress including symptoms of Depression, Anxiety and Stress. This 21-item questionnaire is attached to a 4 point Likert scale. All of the questionnaires were administered in Bahasa Malaysia and they have shown to exhibit strong psychometric properties.

Cluster Analysis was used to create a profile of exercise habit-emotional distress using Ward Method. Prior to the analysis, the data were transformed into z-scores in order to standardize the scale.

Results and Discussion

Scores from the primary measures were computed and were examined for outliers and distributional properties. Missing values were minimal and a mean substitution was used. Multivariate outliers were detected using Mahalanobis distance. Outliers were present and removed from the analysis. Inspection of the skewness and kurtosis indices revealed fairly normal distributions.

The results revealed two distinct clusters of high exercise habit and low emotional distress and low exercise habit and high emotional distress. This supports the notion that exercise habit strength is associated with greater mental health. The results also reinforce the need to encourage the habituation of exercise behaviour in individuals regardless of age groups. Behavioural automaticity may be promoted through frequent repetition of the target

behaviour. In terms of exercise, providing opportunities to participate may be translated into frequent participation. In turn, this may foster exercise habituation. Furthermore, since habit is associated with strong stimulus-response bonds, it may be useful to design intervention that exposes adolescent to exercise cues and prompts. It was found that cues to use stairs over elevators elicited greater usage of stairs. In fact, when the cues were removed, behavioural persistence was still observed (Kerr & Carroll, 2001).

References:

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