FACTORS AFFECTING 1ST YEAR PSYCHOLOGY STUDENTS' STATISTICS LEARNING; THE EFFECT OF MINDFULNESS WEB-BASED INTERVENTION DURING A GLOBAL PANDEMIC

Mitra Jazayeri[a], Xia Li[a], Eric Morris[a], Dan Laurence[a], Birgit Loch[a]

Presenting Author: Mitra Jazayeri (M.Jazayeri@latrobe.edu.au)
[a]La Trobe University, Melbourne, Bundoora, Victoria, 3086, Australia

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BACKGROUND: The well-known hindering negative emotion of statistics anxiety and therefore its effect on social science students' performance has been raised, analysed and discussed previously. However, little has been studied on the effects of a web-based intervention on reducing this anxiety. The purpose of this study was to investigate the effect of mindfulness intervention, based on Acceptance and Commitment Therapy (ACT), on students' statistics anxiety. This research was conducted in a 12-week semester (July-October 2020) at an Australian university during the COVID-19 crisis. During this time, the university was switched to fully online delivery of all courses.

AIMS: 1) Evaluate the effect of the web-based mindfulness and well-being intervention program on students' final grades on an introductory statistics program for psychology students. 2) Predict students' statistics anxiety based on demographic and other data available about students.
3) Evaluate the impact of the web-based mindfulness and well-being intervention program on particular 'type' of students

DESCRIPTION OF INTERVENTION: A web-based mindfulness intervention consisting of three modules was embedded in the subjects' Learning Management System. Each module could be completed by students within 45 minutes.

DESIGN AND METHODS: This research was conducted in a 12-week semester at an Australian university during the COVID-19 crisis. The invited participants were taking an introductory course; Statistics for Psychology (STA1PSY; n = 533) across a main and two regional campuses. Assessment of primary outcomes (confidence, attitude, self-efficacy, computer use and statistics value) was conducted using the modified Technology Acceptance Model (TAM) at pre- and post-intervention for participants. Out of 168 pre-intervention filled surveys, 46 post-intervention filled surveys were received.

RESULTS: Based on Analysis of Covariance (ANCOVA), a significant difference between the means of anxiety scores among pre-intervention and post-intervention groups were observed (adjusting for pre-intervention anxiety scores) ($F(1,37) = 10.438$, $p = 0.000$, partial $\eta^2 = 0.314$). Based on multiple regression, a significant effect of mindfulness intervention on students' final results were observed $F(12,26)=3.320$, $p = 0.005$, partial $\eta 2 = 0.605$). However, demographics could not be utilized to predict students' 'Statistics anxiety' due to the large p values.

CONCLUSIONS: Including a web-based mindfulness intervention in the Learning Management System of the introductory statistics subject for social sciences and psychological sciences students may assist them in decreasing their statistics anxiety.

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