

Bio

[Science](#), [Biology](#)



Bio Article: Stress and cardiometabolic manifestations among Saudi entering universities: A cross-sectional observational study

Source: MBC Public Health

I. Goal:

To investigate possible effects of transition to university life on incidence and prevalence of cardiometabolic complications

II. Model being tested:

Risk that is associated with transition into college life increases chances of occurrence and clustering of cardiometabolic complications

III. Design feature:

A. Explicit protocol

Relevance: Yes

Status: Present

Quote: “ In this cross-sectional study, a total of 1878 apparently healthy Saudi students (1112 men and 766 women for the academic year 2010–2011) were invited to participate. This is a single-center study conducted at the Preparatory Year (PY) College of King Saud University (KSU), Riyadh, Saudi Arabia. KSU is a state university of KSA with different colleges including PY with almost 35000 students coming all over KSA and neighboring Gulf countries.”

B. Replication:

Relevance: Yes

Status: Ambiguous

Quote: “ Weight was recorded to the nearest 0. 2 Kg using an international standard scale (Digital Person Scale, ADAM Equipment Inc., USA); height to

the nearest 0.5 cm using the same scale. BMI was calculated as kg/m^2 , and classified as lean, overweight or obese, depending on BMI for age and gender for subjects below 18 years. Blood was withdrawn in the morning after an overnight fast (> 10 hours) and collected in non-heparinized test tubes by an assigned physician. Fasting serum glucose and lipid profile (Total, LDL- and HDL-cholesterol and triglycerides) were measured using routine laboratory procedures (KoneLab, Finland). All biochemical estimations and storage of samples were carried out at BRP, KSU, Riyadh, KSA.”

C. Standards (used to assess quality):

Relevance: Yes

Status: Present

Quote: “ Data were analyzed using SPSS 11.5 (Chicago, Illinois) and variables were expressed as mean \pm standard deviation (SD) for continuous variables. Frequencies were presented in percentage (%). Student t-test was done to compare differences between 2 groups (with and without perceived stress). Bivariate correlations were done to determine associations between perceived stress and metabolic parameters of interest. P-value was considered significant at < 0.05 .”

D. Randomization

Relevance: Yes

Status: Absent

Quote: “ In this cross-sectional study, a total of 1878 apparently healthy Saudi students (1112 men and 766 women for the academic year 2010–2011) were invited to participate.”

E. Blind

Relevance: Yes

Status: Ambiguous

Quote: “ Weight was recorded to the nearest 0. 2 Kg using an international standard scale (Digital Person Scale, ADAM Equipment Inc., USA); height to the nearest 0. 5 cm using the same scale. BMI was calculated as kg/m^2 , and classified as lean, overweight or obese, depending on BMI for age and gender for subjects below 18 years. Blood was withdrawn in the morning after an overnight fast (> 10 hours) and collected in non-heparinized test tubes by an assigned physician. Fasting serum glucose and lipid profile (Total, LDL- and HDL-cholesterol and triglycerides) were measured using routine laboratory procedures (Konelab, Finland). All biochemical estimations and storage of samples were carried out at BRP, KSU, Riyadh, KSA.”

(Al-Daghri, et al., 2014)

Note that the research procedure is indicative of both replication and blind.

Reference

Al-Daghri, N. et al. (2014). Stress and cardiometabolic manifestations among Saudi Students entering universities: A cross-sectional observational study. BMC Public health, (14. 1), 1-12. Retrieved from: <http://www.readcube.com/articles/10.1186/1471-2458-14-391>.