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PREVENTIVE HEALTH IN A CHANGING WORLD

SHARED FACTORS UNDERLYING HEALTH BEHAVIOURS: AN EXPLORATORY FACTOR ANALYSIS

Wycliffe E Wei, Wong Lai Yin, Matthias PHS Toh

Chronic Disease Epidemiology, Population Health, National Healthcare Group

Background

Health promotion efforts often target specific health behaviours. However, certain behavioural patterns may share common underlying determinants such as particular health beliefs or unique personal attributes. Identifying these groups of health behavioural patterns can create synergies in delivering health promotion.

Aim: This study aims to identify health behavioural patterns among employees who participated in health screening.

Methods

Employee health screening was organised for administrative staff of a healthcare organisation in 2018. Participants were invited to complete a self-administered survey covering screening behaviours, physical activity and dietary habits. They were screened for cardiovascular risk factors (fasting blood glucose, lipids, blood pressure and BMI). Groups of variables that shared common underlying factors were elucidated using Exploratory Factor Analysis (EFA) with varimax rotation.

Results

Of 284 participants, 210 were analysed under complete case analysis. EFA of 18 variables revealed ten factors, of which five were significant from a Scree plot. Three groups of health behaviours were identified with shared underlying factors (factor loading in brackets):

- a) Factor 1("Avoid Excesses"): Avoid Sugar(0.60), Avoid Salt(0.59), Avoid Fat(0.46), Older Age(0.23), Coping Well with Stress(0.21);
- b) Factor 2("Fibre Eaters"): Vegetable Intake(0.61), Fruit Intake(0.59), Coping Well with Stress(0.21); and,
- c) Factor 3("Avoid Getting Fat"): Adequate Exercise(0.40), Avoid Dietary Fat(0.26) [Not significant under Scree plot].

Data sampling was at least marginally adequate(KMO=0.55, Bartlett's test $p < 0.001$).

Conclusion

Certain health behaviours arise from shared underlying factors, likely reflecting common health attitudes. Health promotion efforts could achieve greater synergy by targeting certain groups of health behaviours, such as the avoidance of excesses. Interventions could target shared underlying health attitudes and combine health messages.