

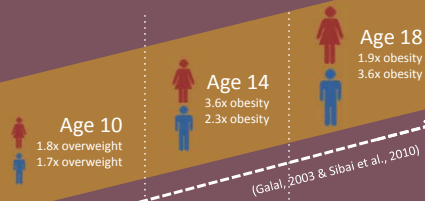
Towards gender-sensitive health promotion strategies: Understanding the barriers and enablers of health promoting attitudes and behaviors among secondary school students in Abu Dhabi

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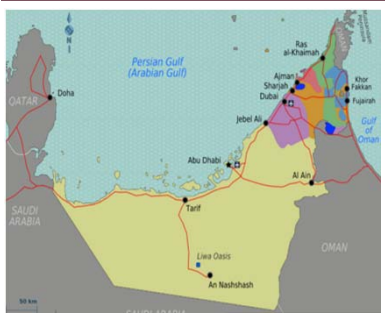
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Background

Large shifts in dietary behavior and physical activity patterns are increasingly reflected on detrimental nutritional and health outcomes in the United Arab Emirates (UAE).



Source: Google Earth



Source: Wikimedia Commons

Objective

To explore the psychosocial needs of secondary school students in the Emirate of Abu Dhabi and understand their gender-specific needs in order to enhance the students capacity to adopt healthy eating and physically active behaviors.

Methods

Using a cross-sectional design, the health behaviors and psychosocial needs of Grade 12 students (N=152) were assessed with a 52-item questionnaire.



Source: Wikimedia Commons

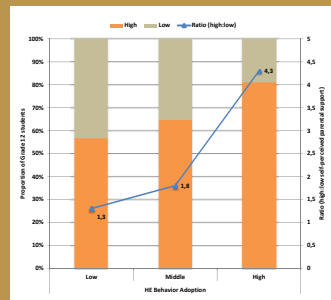
8 government schools in the city of Al Ain were randomly selected.

We created probabilistic models to analyze the factors explaining students' adoption of healthy eating (HE) and physically active (PA) behaviors using binary logistic regressions.

Results

Psychosocial factors influence observed differences in adoption of healthy eating and physical activity among students. Self-perceived pro-social involvement and general self-efficacy significantly explained adoption of healthy eating and physically active behaviors among Grade 12 students (Fig. 1).

Figure 2. Self-perceived parental support among Grade 12 students by likelihood to adopt healthy eating (HE) behavior, Abu Dhabi 2012 (N=125)



Among health protective factors, we revealed an important gradient of parental support by likelihood to adopt healthy eating (Fig. 2).

Further, we found that female students were more likely to engage in unhealthy dietary behaviors and least likely to be physically active (Fig. 3).

Figure 1. Odds of high pro-social involvement (PSI) and self-efficacy (GSE) indicators among Grade 12 students by likelihood to adopt healthy eating (HE) and physically active (PA) behaviors, Abu Dhabi 2012

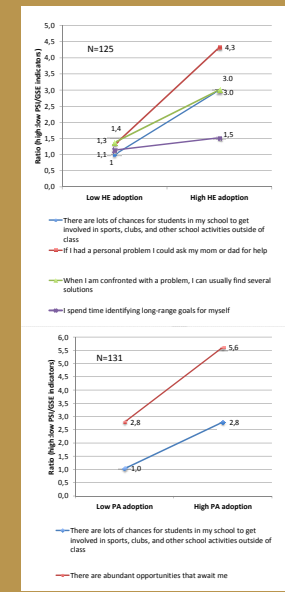
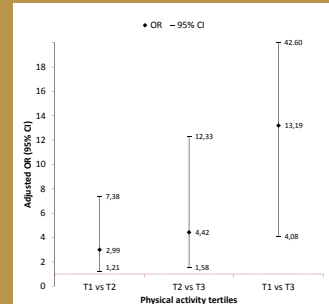


Figure 3. Adjusted* Odds Ratios (OR) and 95% Confidence Interval (CI) from polytomous logistic regression of physical activity score tertiles on gender[†], Abu Dhabi 2012 (N=152)



* Adjusted by health education variables: (a) taught about how to develop a physical fitness plan and (b) taught about how to prevent injury during physical activity; [†] Gender: female = reference category.

Discussion

- In order to reach students, influence behaviors and positively impact health, it is imperative that we intervene to enhance psychosocial factors in parallel to encouraging healthy eating and physical activity.
- Differences in healthy eating, physical activity and psychosocial factors between girls and boys suggest that they will respond differently to school health programs.

Enhancing students' capacity to engage in school health promotion strategies is dependent on how well we understand their gender-specific needs.



Source: Wikimedia Commons

Conclusion

This study provides evidence of behavior adoption correlates among adolescent students in the UAE and reveals significant gender differences in healthy eating, physical activity and health protective factors. The results highlight the need for gender-responsive and evidence-based school health promotion interventions targeting the psychosocial needs of students in the Emirates.



Source: Wikimedia Commons

References

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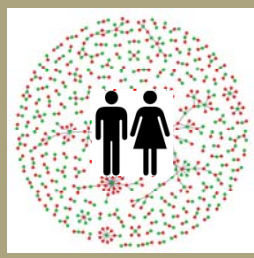
Construction and validation of a Health Promoting School Index (HPSI) to measure the capacity of school environments to promote physical activity and healthy eating

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Background

- Health-impairing behaviors adopted during childhood, including sedentary lifestyle and detrimental dietary intake, predict elevated risks of chronic disease mortality and morbidity in adulthood (1, 2).
- As loci for health promotion and disease prevention, schools are well positioned to foster healthy lifestyles in children.



Objective

To construct and validate a multidimensional Health Promoting School Index (HPSI) that assesses the capacity of primary schools to become quality health-promoting environments in the UAE and the Middle Eastern region.

Growing need to assess schools as multidimensional health-supporting wholes.

Methods

We constructed a 47-item index that measures 4 dimensions of school health environments. We tested its content and construct validity by answering a series of questions, as well as, its reliability (internal consistency) using Cronbach's α .

Property	Question	Strategy
Content Validity	Does the index capture the various key aspects of the health promoting school environments specified by the WHO?	Check HPSI against the WHO's guidelines
	Does the HPSI give maximum scores to schools known to have high health promoting quality?	Compute scores for schools known to be excellent health promoting environments (Model schools)
Construct Validity	Does the index distinguish between schools with known differences in health promoting quality?	Compare scores between schools with known differences (Ex. Villa vs. Non-villa)
	Does the index measure health promoting school environment independent of tuition category?	Estimate Pearson correlations between HE, PA and HPSI with tuition category
Reliability	How reliable is the total index score if quality of health promoting environment is found to have one dimension?	Determine Cronbach's Coefficient (α)
	What are the relationships among the index components? Which components have the most influence on the total score?	& Estimate Correlations

Results

Constructing the HPSI

Forty-seven items related to the school environment's capacity to promote physical activity and healthy eating were extracted from a School Health Environment Survey (N=104, 2010) and coded to construct the HPSI.

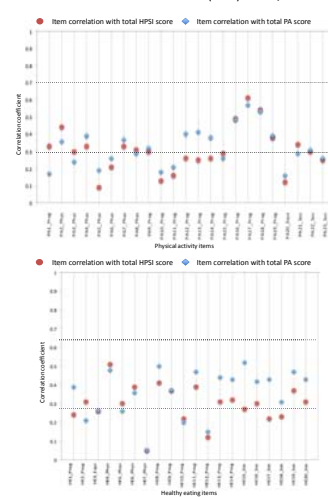
Figure 1. Maximum scores assigned for Physical Activity (PA), Healthy Eating (HE) and General Health Service (GHS) items by index dimension



Table 1. Health Promoting School Index (HPSI) components, 2012

Health Promoting School Index (HPSI)		
Component	Items	Maximum Points
Physical	15	17
Programmatic	21	32
Social	9	13
Equity	2	8
HPSI total	47	74
Physical Activity (PA) Section		
Component	Items	Maximum Points
Physical	7	7
Programmatic	12	22
Social	3	7
Equity	1	4
PA Section total	23	40
Healthy Eating (HE) Section		
Component	Items	Maximum Points
Physical	4	10
Programmatic	9	10
Social	6	6
Equity	1	4
HE Section total	20	30
General Health Service (GHS)		
Component	Items	Maximum Points
Physical	4	4
GHS items total	4	4

Figure 2. Correlations between physical activity (PA) and healthy eating (HE) items and their respective total PA, HE and Health Promotion School Index (HPSI) scores, 2012



Validating the HPSI

HPSI captures key WHO recommendations. It gives maximum scores to exemplary schools, T-test shows significant differences between government accredited (villa) and un-accredited (non-villa) schools ($p=0.03$), and independence between index scores and tuition was revealed ($\rho=0.013$, $p=0.90$). Cronbach's α was high (0.84). Average inter-item correlation was low (0.10).

Discussion

Our findings support the use of the HPSI as an instrument to evaluate the degree to which any given school meets the standard WHO guidelines for health-promoting school environments, as well as, to examine the quality of any combination of health-promoting actions.

By offering a global view of the state of school health promotion, the HPSI can assess multi-dimensional gaps in health promoting environments and target areas where strategies can be implemented transversally and change can occur in a larger scale.

Conclusion

Our findings reveal HPSI to be a multi-dimensional, consistent and valid instrument to evaluate school health environments. As a guiding tool for health-promoting policies, we encourage its larger use.

References

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