ISRCTN59207794 https://doi.org/10.1186/ISRCTN59207794

Computer-based health education as a tool to improve health-related knowledge, attitude and practices of Arab college/university students in Israel

Submission date
11/09/2013

Recruitment status
No longer recruiting

Registration date
18/09/2013

Overall study status
Completed

Last Edited
24/02/2015

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Background and study aims
Web-based programs are effective health promotion tools in Western countries. With the dramatic increase of internet and computer use among Arab college/university students, a web-based program could be an easy, accessible health promotion tool without too much need for resources required by usual methods. The purpose of this study was to find out the effectiveness, acceptability, and feasibility of a web-based health education program that provides personalized feedback to improve health-related knowledge, attitude, and practices of Arab college/university students in Israel.

Who can participate?
Male and female Arab students, aged 18 years and older, who are attending colleges or universities in Israel, can participate in the study.

What does the study involve?
The study involved developing an interactive computer program as a health promotion tool. The online program was developed in Arabic and consisted of two parts: an interactive self-administered online questionnaire and giving out health education material, either personalized or general. The program was tested before being used in the study. Participants were randomly divided into two groups (intervention and control groups). The intervention group received feedback that was tailored to the participant's response. The control group received general health education feedback (non-tailored). Participants completed the program three times: at the start of the study, after 1 month, and after 6 months. Following the program, five focus groups were conducted to find out about the participants' personal opinions about the acceptability, appeal, and effectiveness of such a computer-based health program.

What are the possible benefits and risks of participating?
The benefit of participating is, increased knowledge and awareness regarding four health behaviors (smoking, nutrition, exercise, and use of seat belt use). It was hoped that participation

in the study would lead to more positive health behavior. There are no risks involved in participating in the study.

Where is the study run from?
University of Haifa, Israel. Participants were recruited from various colleges and universities in Israel, including the following: University of Haifa, Technion- Institute of Technology, Tel Aviv University, Hebrew University, College for Teacher's Education in Haifa, College for Teacher's Education in Sakhnin, Tel Hai College, Emek HaYardin College, Sakhnin College for Engineering, Zfa't College- Bar Ilan University, and Al-Qassimi College.

When is the study starting and how long is it expected to run for?
The study took place between September 2007 to and December 2011.

Who is funding the study?
This was a doctoral research study that was funded by the University of Haifa, Israel.

Who is the main contact?
Dr Jumanah Essa-Hadad
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Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

Study information

Scientific Title

Computer-based health education as a tool to improve health-related knowledge, attitude and practices of Arab college/university students in Israel: a randomized controlled trial

Study objectives
1. Computer-based health programs that provide tailored educational feedback can effectively serve as a health promotion tool among the target population, by increasing health-related knowledge and promoting behavioral change.
2. Intervention participants who received tailored health educational material via a computer program will improve their knowledge about certain health issues by choosing more accurate answers over time.
3. Participants in the intervention group will significantly gain health awareness after participating in the computer-based health program, regardless of gender, religion, and other socio-demographic factors.
4. Tailored health education will be more effective in increasing knowledge and improving health behaviors of the Arab target group than non-tailored health education.
5. Tailored computer-based health programs are an acceptable, preferable, and useful health promotion tools among the target population.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Haifa, Faculty of Social Welfare and Health Sciences; March 2007

Study design
Pretest post-test single-center randomized controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Other

Study type(s)
Prevention

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet (available in Arabic only)

Health condition(s) or problem(s) studied
Health behaviors (smoking, dietary habits, physical activity, and seat belt use)

Interventions
Participants were randomized into one of two groups:
1. Tailored feedback intervention group (research group)
2. General feedback intervention group (control group)

The computer program consisted of two parts:
1. An interactive self-administered online questionnaire;
The interactive self-administered online questionnaire was comprised of four modules, each focusing on a specific health behavior: smoking, nutrition, exercise, and seat belt use. Each module consisted of a series of knowledge, belief, and behavior questions on the specific health behavior.
2. Dissemination of health education material, either tailored or general.
The intervention group received health education feedback that was tailored to their reported behaviors; the general feedback group (control) received general health educational materials (not tailored according to their responses) online following completion of the questionnaire. Participants were required to complete one module at a time before progressing to the next module. After completion of each module, the computer program was designed to immediately analyze responses and automatically display the health educational material for the participant to read. This educational feedback (in Arabic) included a list of potential health risks based on the questionnaire responses and appropriate educational material, that aimed to increase health-related knowledge and promote positive health-related behaviors. This feedback was given in the form of short recommendations to the user. If the participant was in the tailored intervention, the feedback was specific to their reported health behavior.
The actual computer program took participants about 30 minutes to complete. After completing the intervention at baseline, participants were then asked to complete the questionnaire after 1 month, and after 6 months.

Intervention Type
Other

Phase
Not Applicable

Primary outcome measure
1. Smoking knowledge and behavior (cigarette and Nargila) assessed using the CDC's Global Youth Tobacco Survey
2. Dietary behavior and knowledge (fruit and vegetable consumption, fat consumption, dairy consumption, fast food intake), assessed by questions from the National Health and Nutrition Examination Survey (NHANES) and Behavioral Risk Factor Surveillance System (BRFSS)
3. Physical activity assessed by questions from the NHANES and BRFSS
4. Seat belt use and knowledge, assessed by questions from the BRFSS
The intervention and control groups were compared at one month and six-months follow-up (control: baseline measures).

Secondary outcome measures
1. Number of cigarettes smoked; number of times Nargila is smoked per week
2. Intention to change smoking, nutrition, and exercise behaviors
3. Social perceptions, attitudes, and beliefs regarding health behaviors
4. Engagement with the online intervention including number of times educational feedback is visited
5. Preference and acceptability of web-based health education program (from focus group sessions)
6. Satisfaction from the web-based program

Overall study start date
15/09/2007

Completion date
30/12/2011

Eligibility

Key inclusion criteria
1. Male and female Arab students attending colleges and universities in Israel during 2007-2011
2. Agde 18 years and older

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
350

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
15/09/2007

Date of final enrolment
30/12/2011

Locations

Countries of recruitment
Israel

Study participating centre
PO Box 414
Eilaboun
Israel
16972

Sponsor information

Organisation
University of Haifa (Israel)

Sponsor details
Mount Carmel
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3498838

Sponsor type
University/education

Website
http://www.haifa.ac.il

ROR
https://ror.org/02f009v59

Funder(s)

Funder type
University/education

Funder Name
University of Haifa (Israel) - tuition scholarship and this research was conducted under the framework of a doctoral program

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	20/02/2015		Yes	No