# The Savior's Sandals curricular and pedometer program for increasing step counts in Catholic middle school students during Lent

Submission date	Recruitment status No longer recruiting	Prospectively registered		
12/10/2018		☐ Protocol		
Registration date	Overall study status	Statistical analysis plan		
23/10/2018	Completed	[X] Results		
Last Edited	Condition category	[] Individual participant data		
04/02/2019	Other			

#### Plain English summary of protocol

Background and study aims

Schools are a good place to offer changes to tackle obesity and lack of activity in young people. Studies have shown that pedometers (step counters) can encourage activity throughout the day and can increase physical activity outside of physical education (PE) classes. In 2009-10, nearly 4.5 million children attended private PK-12 (pre-kindergarten to grade 12) Christian schools in the United States. In San Diego County, there are nearly 500 private PK-12 schools with nearly 40 Christian schools in San Diego City alone. It is important to discover if faith-based pedometer interventions will increase physical activity and religiosity, enjoyment of physical activity, and motivation for a faith-based physical activity program among parochial junior high school students. Positive findings from the study would set the stage for the intervention materials to be used in the future. The aim of the study is to measure changes in step counts and variables related to physical activity - religiosity, enjoyment, motivation - during a faith-based curriculum intervention provided during Lent.

#### Who can participate?

Any student regardless of gender, enrolled in grades 6-8, between ages 10-14, and who is ambulatory (able to walk) may participate.

#### What does the study involve?

Participants wear a pedometer during school hours for the 6 weeks of Lent. For 4 weeks they are given a workbook that allows them to learn about the locations that Jesus visited from birth until death as they attempt to virtually walk in his shoes by walking 110,000 steps during the 4 weeks. Participants are challenged to be mindful of "What would Jesus do?" when faced with a choice of how to spend break times (e.g., recess, lunch) during the school day: be sedentary or move. Participants record and graph daily step counts. If students walk 110,000 steps, they will have completed Jesus's life journey during the Lenten season, which is a time that all Catholics are enjoined to be mindful of being more Christ-like in their behavior. They are awarded a token (footie that can be worn on a necklace) for every 5000 steps and an Easter bookmark if they complete the journey. Participants complete two questionnaires (before and after the intervention) on religiosity and enjoyment of and motivation for physical activity. All participants

receive the same treatment; however, one cluster (2 schools) will begin with the intervention (4 weeks) while the other cluster (2 schools) will begin with no treatment (pedometers only; 2 weeks). Thereafter, the clusters will cross over to no treatment and intervention, respectively. We are comparing the effects of the faith-based workbook to no workbook conditions.

What are the possible benefits and risks of participating?

Participants may benefit by becoming more mindful of their behavior when faced with a choice to be active or sedentary during unstructured time at school; they may feel a closer connection to Christ and God; and they may feel a sense of personal accomplishment if they complete the virtual journey of 110,000 steps. Risks include personal disappointment for not completing the virtual journey and embarrassment if step counts are compared to others. These risks are mitigated by stressing that everyone undertakes a personal journey and it is not a competition and the path is important than the destination (i.e., not reaching step count goal is okay if you tried your best).

Where is the study run from?

The study takes place at 4 Catholic schools in San Diego, California, USA. The schools' names are St. Columba, St. Rita's, Nativity Preparatory, and Our Lady of the Sacred Heart School. There is no lead center.

When is the study starting and how long is it expected to run for? February 2017 to April 2017

Who is funding the study?
The study is self-funded by the researcher

Who is the main contact? David Kahan dkahan@sdsu.edu

# **Contact information**

#### Type(s)

Scientific

#### Contact name

Prof David Kahan

#### ORCID ID

http://orcid.org/0000-0002-3135-2215

#### Contact details

5500 Campanile Drive ENS Building 315 San Diego United States of America 92182-7251

# Additional identifiers

#### **EudraCT/CTIS** number

#### **IRAS** number

#### ClinicalTrials.gov number

#### Secondary identifying numbers

1013089

# Study information

#### Scientific Title

Effects of a faith-based pedometer intervention on physical activity in parochial middle school students: The Physical Activity for Lent (PAL) Program

#### Acronym

PAL

#### **Study objectives**

During the 6-week Lenten season, participants will accumulate significantly more steps during the 4-week intervention phase than the 2-week no-treatment phase.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

San Diego State University Institutional Review Board, 24/06/2016, Protocol No. 1013089

#### Study design

Cluster-randomized crossover trial

#### Primary study design

Interventional

#### Secondary study design

Randomised cross over trial

#### Study setting(s)

School

#### Study type(s)

Other

#### Participant information sheet

Not available in web format, please use contact details to request a participant information sheet.

# Health condition(s) or problem(s) studied

Physical activity during the school day

#### **Interventions**

Intervention consists of material workbook, which includes 12-page workbook (The Savior's Sandals) by which participants trace their own step counts to the geographical path Jesus Christ took from birth through death. Each workbook page represents a city/place (e.g., Bethlehem, Cana, Jerusalem) and is accompanied by questions specific to it and to be answered by a participant using a Bible; historical/current visual images of the location; and facts about its history and present day. Participants are each given a workbook and work through it at their own pace with the goal to finish the virtual journey (i.e., accumulated steps count toward making the journey of Jesus's life) in 4 weeks. Daily progress is self-recorded and -reported on a recording sheet and step counts are also graphed.

Participants in schools during the no treatment phase do not have the workbooks but do wear pedometers and record and graph daily steps.

#### **Intervention Type**

Behavioural

#### Primary outcome measure

Pedometer-measured step count (physical activity) - steps measured daily during the school week over 6 weeks.

#### Secondary outcome measures

- 1. Religiosity measured using the Short-Francis Attitudes toward Christianity Survey (SFACS; Cogollo, Gómez-Bustamante, Herazo, & Campo-Arias, 2012).
- 2. Enjoyment of physical activity while at school measured using the shortened Physical Activity Enjoyment Scale (S-PACES; Paxton, et al., 2008).
- 3. Motivation for physical activity for participating in the Physical Activity for Lent program measured using the Situational Motivation Scale (SIMS; Guay, Vallerand, & Blanchard, 2000). Questionnaires containing these items were administered before commencement of wearing pedometers (27/02/2017) and conducted once more on school days after the Easter holiday (16/04/2017)

#### Overall study start date

29/01/2016

#### Completion date

28/04/2017

# **Eligibility**

#### Key inclusion criteria

- 1. Ambulatory
- 2. Enrolled in any grade 6-8 (middle school in the USA)

#### Participant type(s)

Healthy volunteer

#### Age group

Child

#### Sex

Both

#### Target number of participants

202; 2 clusters of 2 schools each (average number of participants per cluster = 93)

#### Key exclusion criteria

1. Non-ambulatory or limited ambulatory during a portion or all of the 6-week study.

#### Date of first enrolment

30/01/2017

#### Date of final enrolment

24/02/2017

#### Locations

#### Countries of recruitment

United States of America

#### Study participating centre St. Rita's Catholic School

5165 Imperial Ave San Diego United States of America 92114

#### Study participating centre St. Columba Catholic School

3365 Glencolum Dr. San Diego United States of America 92123

# Study participating centre Our Lady of the Sacred Heart School

4106 42nd St. San Diego United States of America 92105

#### Study participating centre

#### **Nativity Prep Academy**

2755 55th St. San Diego United States of America 92105

# Sponsor information

#### Organisation

San Diego State University - Division of Research Affairs

#### Sponsor details

5250 Campanile Drive San Diego United States of America 92182-1933

#### Sponsor type

University/education

#### Website

https://research.sdsu.edu/research\_affairs/human\_subjects

#### **ROR**

https://ror.org/0264fdx42

# Funder(s)

#### Funder type

Not defined

#### **Funder Name**

Investigator initiated and funded

# **Results and Publications**

#### Publication and dissemination plan

- 1. A manuscript with results for the primary purpose of the study (i.e., changes in step counts) will be sent to BMC Public Health in October 2018.
- 2. A manuscript with results for the secondary purpose of the study (i.e., changes in religiosity,

enjoyment of physical activity, and motivation for the Physical Activity for Lent program) is planned for submission by January 2019 to Research Quarterly for Exercise and Sport.

3. There are no plans to disseminate data via conference presentations or proceedings.

#### Intention to publish date

01/01/2019

#### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be stored in a publicly available repository. Raw data are stored on Zenodo (doi:10.5281/zenodo.1407244). Raw data are provided for all variables in Excel spreadsheet format. The data are currently and permanently available. Anyone who has access to Zenodo may view/download the data and use the data for any purpose. All data are anonymized (i.e. there is no means by which any individual participant may be identified by name).

### IPD sharing plan summary

Stored in repository

#### **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/02/2019	04/02/2019	Yes	No