

PHYSICAL ACTIVITY IN HEALTH PROFESSION STUDENTS

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Background

- WHO¹ recommends 150 minutes of moderately intense physical activity per week
- Physical activity may reduce
 - the risk of Type II diabetes
 - cardiovascular disease
 - some cancers



¹ Physical activity. (2012)

Background cont.

- Racette, Deusinger, Strube, Highstein and Deusinger (2005) conducted a two-year study of college students and found considerable weight gain in the first two years of college
- Weight gain caused by:
 - Physical inactivity
 - Not consuming enough fruits and vegetables
 - Over consumption of fast and fried foods

Background for Health Profession Students

- Risk for physical inactivity due to²:
 - Academic time constraints
 - Lack of sleep
 - Social pressures
- Unhealthy college lifestyle³:
 - Lack of regular exercise
 - alcohol and tobacco use
 - poor eating patterns

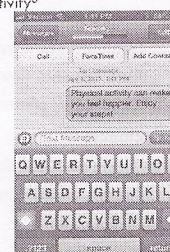


² Clement et al (2002)

³ Schmidt (2012)

Review of the Literature

- Link between depression and physical inactivity⁴
- Use of pedometers⁵
- Use of cell phones for increasing physical activity⁶
 - Availability
 - Text messages to improve physical activity

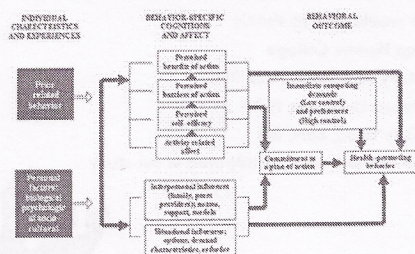


⁴ Elliot et al (2012)

⁵ Mestek et al (2008)

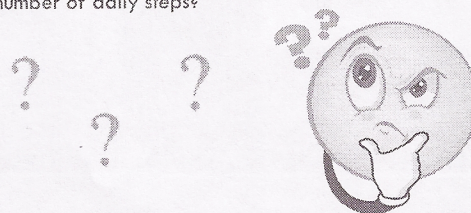
⁶ Millello et al (2012)

Pender's Health Promotion Model



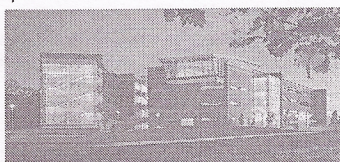
Research Question

- Is there a difference between the those who received (intervention group) and those who did not receive (control group) affective messages in the number of daily steps?



Study Design

- Quasi experimental
 - Intervention group
 - Control group
- Convenience sample



Procedure

- HSIRB approval
- Students recruited via email and booth in the CHHS atrium
- Completed demographics questionnaire
- Both groups received a text message at 9pm daily
- Intervention group received a text at 4pm daily
 - "Increasing your number of steps can make you feel more energized!"

Sample

- 134 students from the College of Health and Human Services (CHHS)
- Inclusion Criteria:
 - Enrolled in at least one course in CHHS
 - Able to read, write, understand English
 - Have a cell phone with texting capability
- Exclusion Criteria:
 - Known physical disability that limits mobility
 - Faculty or staff status at CHHS

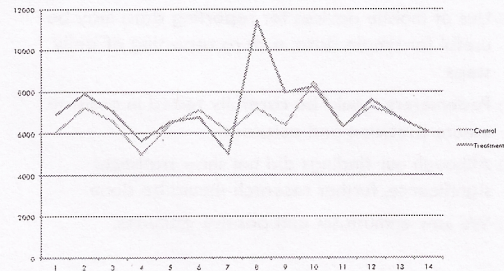
Sample Demographics

Age	Gender	Degree	Program	BMI
Mean= 26.1 (SD= 9.2)	Female= 98 (87.5%)	Undergrad= 77 (68.9%)	Nursing= 74 (66.1%)	Mean= 23.3 (SD=4.9)
	Male= 14 (12.5%)	Grad= 35 (31.2%)	Other= 38 (33.9%)	

Results

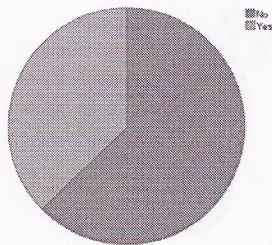
- Treatment and control groups were similar when the study started (Time 1).
- N=112
- Paired *t* tests compared Time 1 steps with all other days. There were no statistical differences in either group.

Number of Steps by Group



Results (continued)

- Most of the sample thought they did not get enough exercise (n=69, 61.2%)



More than 10,000 Steps/ Day

Day	≥ 10,000 Steps
One	20
Two	20
Three	17
Four	10
Five	16
Six	19
Seven	13
Eight	19
Nine	17
Ten	23
Eleven	8
Twelve	14
Thirteen	12
Fourteen	10

- Only 8 (7.1%) to 23 (20.5%) students reported getting 10,000 a day.
- N=112

Discussion

- Results did not support those of Sirriyeh, Lawton, and Ward (2010)
- Although we used the same time frame and similar affective text messages, their results were not replicated.



Discussion

- Limitations:
 - Low-quality pedometers
 - Winter season
 - Length of study was not long enough
 - Little pretest data



Conclusion

- Use of mobile devices for reporting data may be useful for simple data, such as reporting of daily steps
- Pedometers should be carefully tested in order to ensure precision and accuracy.
- Although our findings did not show statistical significance, further research should be done.
- We saw enthusiasm and positive attitudes.

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Questions???

Does anyone have any questions?

