

ADDING GROUP ASSIGNMENTS TO A SEMESTER-LONG ACTIVITY CLASS: CHANGES IN GROUP CONSTRUCTS AND FITNESS

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Abstract

Group constructs such as groupness and cohesion have been associated with positive outcomes in group exercise classes such as attendance and punctuality. **Purpose:** The purpose of this study was to explore changes in group constructs (groupness and cohesion) during a semester of physical activity classes as well as changes in fitness measures. **Methods:** College students (N=60) in physical activity courses were asked questions related to groupness and cohesion at the beginning and end of a semester. Students also took part in physical fitness assessments including the one minute sit-up test, one minute pushup test, number of steps per week and 1.5 mile run test to see how activity over the semester impacted fitness. As part of the class, students were put in groups and completed several group assignments (e.g., group-initiated hike). **Results:** There was a statistically significant decrease in groupness over the course of the semester ($t(29)=2.85, p<.001$). Similarly, the two attraction to group (ATG) dimensions of cohesion showed a significant decrease (ATG-Task: $t(29)=2.14, p=.041$; ATG-Social $t(29)=2.36, p=.025$). Neither group integration subscale was significant ($p>.09$). For the fitness measures, there was a significant increase in sit-ups ($t(59)=-9.59, p<.001$) and pushups ($t(59)=-9.28, p<.001$) over the semester. No difference was found for the number of steps in one week ($p=.114$) and 1.5 mile run test ($p=1.60$). **Discussion:** In contrast to what was hypothesized, the group constructs showed a decrease over the course of the semester. This could be due to students being assigned to their group and having no choice in group composition. This has potential implications for effort and attendance in these classes. However, some of the fitness measures did show increases (sit-up and pushups) Further research is needed factors that contributed to these decreases in group constructs and the role that group constructs play on behaviors in these classes.

Introduction

- A trend in unhealthy physical activity decisions is seen especially in college-aged individuals
- 38% college students participate in regular vigorous activity (Kilpatrick, Hebert, & Bartholomew, 2005)
- Group constructs have been associated positive outcomes in group settings
- One well known construct is cohesion (Carron, Widmeyer & Brawley, 1985)
 - Associated with attendance, punctuality (Spink & Carron, 1994)
 - Interventions targeting cohesion improve adherence and satisfaction (Spink & Carron, 1993; Bruner & Spink, 2010)
- Groupness, or ones perceptions of being a group, also has been associated with adherence (Spink, Wilson & Priebe, 2010)

Purpose

The purpose of this study was to explore changes in group constructs (groupness and cohesion) during a semester of physical activity classes as well as changes in fitness measures.

Methods

Participants

- College students (N=60) enrolled in physical activity courses
- Mean age=21, 2 males and 32 females (26 did not complete questionnaire)

Procedures

- Randomized groups participated in 3 group activities over the semester:
 - Semester goals discussion
 - Meal planning
 - Outdoor hike
- Pre/Post questionnaire on group constructs
- Pre/Post Fitness assessments

Group Meeting #4
3 Points

Exercise does not have to be limited to the gym. Trying different types of physical activity can help you find what you enjoy and help you stick to it! Working out in the outdoors is a great option to take your mind off the activity and look around at nature.

As a group, you will:

- Go on a hike
Find a local hiking trail. It should be at least 2 miles in distance and take you at a MINIMUM of 30 minutes. Longer hikes (60 mins) are preferred.

What is due?

- Print out of the hike location/description, including distance
- Before & After photos (with a timestamp) of the group at the trailhead
- *This assignment may be done by splitting your group; however, the hike MUST be done with students from class.

Grading Scale-5 Points (Due Monday May 5)
(No photos=Automatic Zero)

Hike Description	2 points
Group photo # 1	2 points
Group photo # 2	1 point

*If you are not present in the photos, you will receive a zero for the assignment.

Measures

- **Cohesion:** Assessed by the Group Environment Questionnaire (GEQ; Carron, et al., 1985)
 - Attraction to the Group – Social (ATG-S): “I enjoy the social interaction occurring in this group”
 - Attraction to group – Task (ATG-T): “I like the approach to exercise in this group”
 - Group integration – Task (GI-T): “Members of our group have similar aspirations regarding our group’s progress”
 - Group integration – Social (GI-S): “Members of our group stick together outside of the class setting”
 - 1 (strongly disagree) to 9 (strongly agree)
- **Groupness:** (Spink, Wilson, & Priebe, 2010)
 - 5 items: “Do you consider the individuals in this setting to be a group (i.e., “we”) as compared to a collection of individuals”
 - 1 (not at all) to 9 (very much so)
- **Fitness measure:** (Baechle & Earle, Essentials of Strength Training & Conditioning, 2008)
 - 1 minute push ups, 1 minute sit ups, 1.5 mile run test, Sit & Reach
 - Steps per week

Analyses

- Dependent t-test performed in SPSS

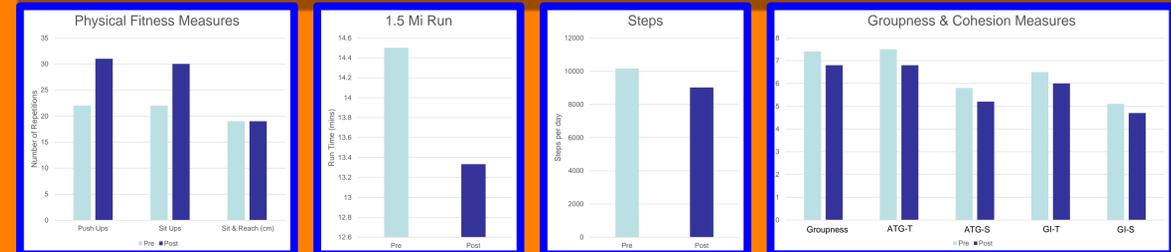
Results

Changes in Group Constructs

- Decrease in groupness throughout the semester ($t(29)=2.85, p<.001$).
- Decrease in ATG dimensions of cohesion (ATG-Task: $t(29)=2.14, p=.041$; ATG-Social $t(29)=2.36, p=.025$)
- Neither group integration subscale was significant ($p>.09$)

Changes in Fitness:

- Fitness Measures increased in sit-ups ($t(59)=-9.59, p<.001$) & pushups ($t(59)=-9.28, p<.001$)
- No difference for the number of steps in one week ($p=.114$) & 1.5 mile run test ($p=.160$)



Discussion

- Group constructs decreased over the semester
 - These lower levels may translate to lower levels of effort and attendance
- In contrast to teambuilding interventions that show higher levels of cohesion in teambuilding groups (Spink & Carron, 1993; Burner & Spink, 2010)
 - Previous teambuilding interventions were more intensive than group assignments (Burner & Spink, 2010)
 - Other minimal interventions such as a one day challenge course show no changes in cohesion (Glass & Benshoff, 2002)
- Increased scores in fitness measures performed with partners (sit-up & push-up)

Limitations/Future Research

- Absence control group limits interpretation of changes
- Minimal group intervention may limit changes observed
- Need to explore factors that may lead to decreases in group perceptions
- Further research needed to see if allowing students to choose their groups would result in different findings, given students were assigned their groups in this study

Conclusion and Application

- Fitness changes observed suggest benefits of class participation
- However, decreases in group perceptions suggest instructors may wish to examine ways to promote the group in the classroom

