

# Manipulating the psychological climate of group exercise classes: The effects on social physique anxiety and self-presentation

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## INTRODUCTION

- Group exercise classes have been identified as settings where body-related concerns might be present (Martin & Fox, 2001)
  - Social physique anxiety (SPA):** perceptions of negative evaluation of one's physique (Hart et al., 1989)
  - Self –presentational efficacy (SPE):** confidence to present oneself to others (Leary & Atherton, 1986)
- The group environment of these classes is important as manipulating leadership style and group interactions have elicited change in social anxiety (Martin & Fox, 2001)
- SPA and SPE have been related to psychological climate (PC) in exercise classes (Hamamoto, Desmond, & Wilson, 2016)
- PC reflects perceptions that an environment is both safe and meaningful (Brown & Leigh, 1996; Spink et al., 2013)
  - Safety: Supportive management, role clarity and self-expression
  - Meaningfulness: Contribution and challenge
- However, there is currently no research examining if the PC could be manipulated to elicit different experiences of body-related concerns

## PURPOSE

To examine if psychological climate could be manipulated and in turn influence experiences of SPA and self-presentation in group exercise settings

## METHODS

### Participants:

- Undergraduate Kinesiology students (n=80; 55% female)
  - Age:** 18 – 28 (M= 21.6 years old, SD = 0.2)
  - Ethnicity:** Asian/Pacific Islander (n=26, 32.5%), Black (n=6, 7.5%), Hispanic (n=24, 30%), Caucasian (n=15, 18.8%), Multi-racial (n=6, 7.5%), Other (n=3, 3.6%)

### Procedure:

- Interested participants signed up for a self-selected class time
- All classes were randomly assigned to an enriched climate (n=7) or a minimal climate (n=8)
  - Details on manipulation by leader and trained confederates are in Figure 1
- Commonalities across both conditions included:
  - Class size between 6-10 of mixed gender (half confederates)
  - Video recorded & mirrored room
  - Wore heart rate monitors
  - Same challenging exercise routine led by same leader
- All participants completed a questionnaire at the end of the class

### Measures:

- PC was measured by a 21-item questionnaire (Spink et al., 2013)
  - 1 (Strongly Disagree) to 7 (Strongly Agree)
- State SPA was measured by a 9-item questionnaire adapted from Martin-Ginis et al., (2011)
  - "I feel uptight about my physique/figure in this class."
  - 1 (Not at all) to 5 (A great deal)
- SPE was measured by a 5-item questionnaire (Gammage et al., 2004)
  - "How confident are you that...in this class other people will think that your body looks fit and toned?"
  - 0% (Not at all confident) to 100% (Completely confident)

## ANALYSIS

- Independent t-tests examined differences between groups
  - IV: Enriched and minimal
  - DV: SPA, SPE, PC subscales

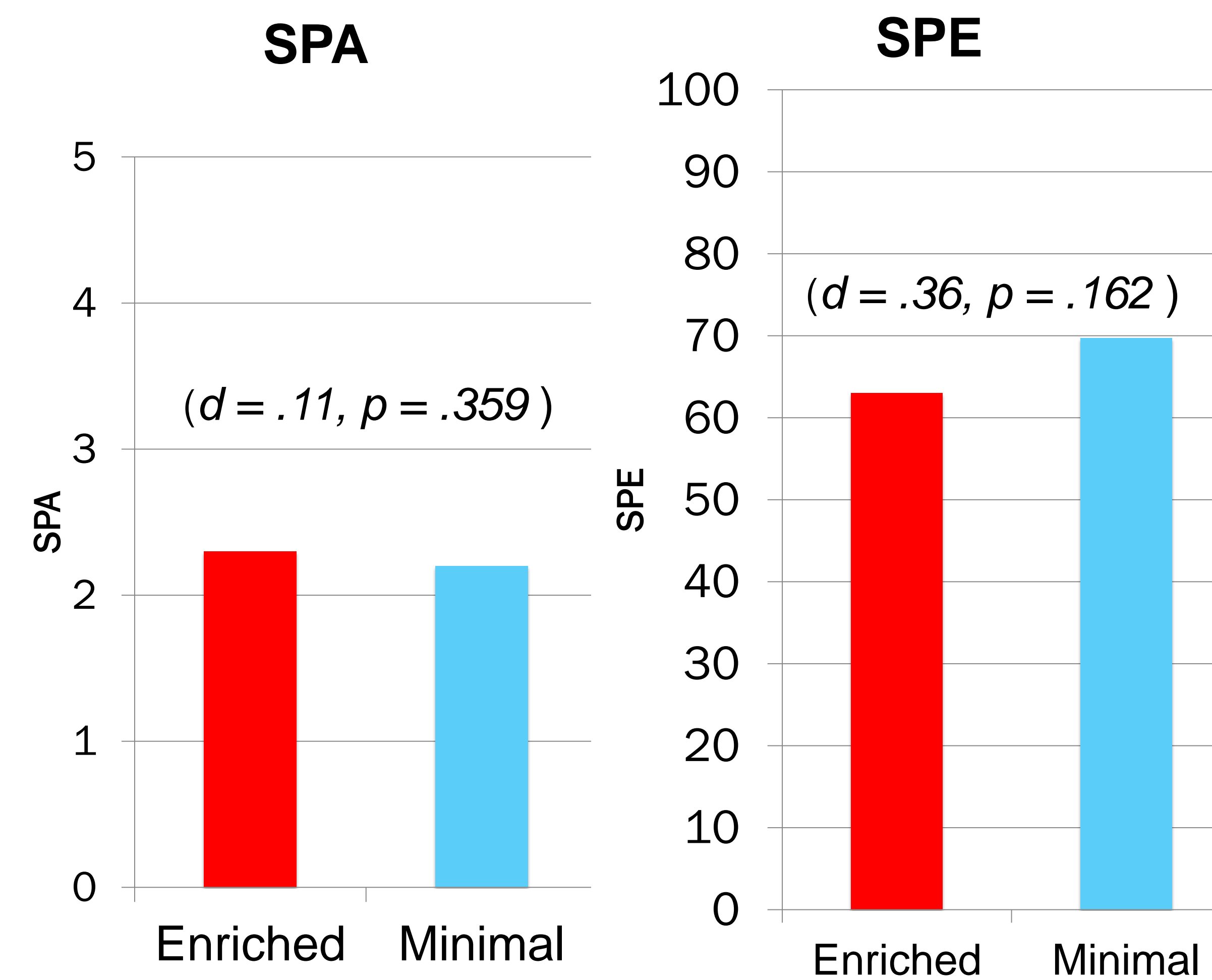
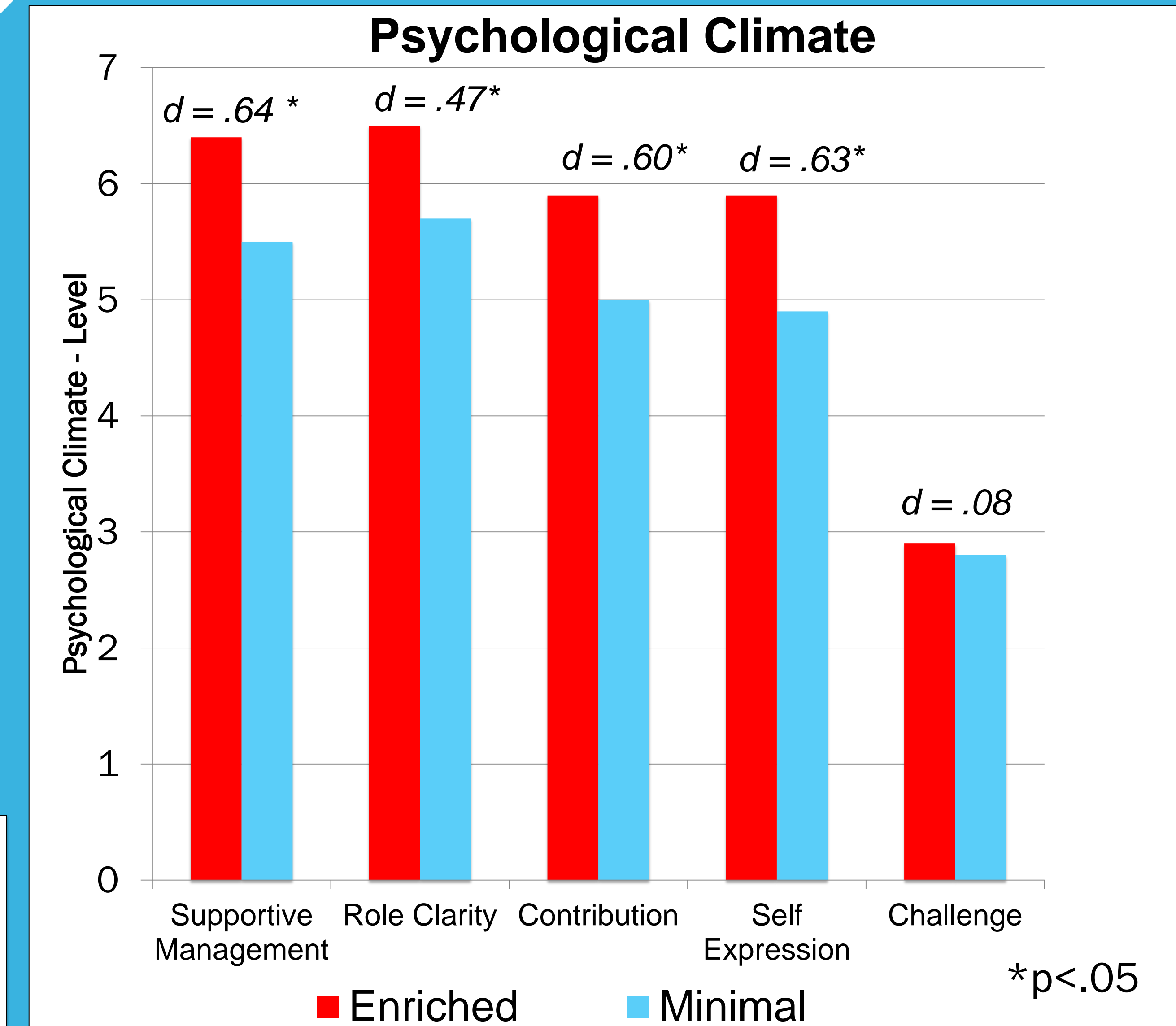


Figure 1. PC Manipulations

	Enriched	Minimal
<b>Supportive Management</b>	<ul style="list-style-type: none"> <li>Leader was flexible and gave choices</li> <li>Confederates reinforced leader's flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Leader was not flexible</li> <li>Confederates talked about wanting choices ("I wish we could have breaks.")</li> </ul>
<b>Role Clarity</b>	<ul style="list-style-type: none"> <li>Leader let the participants create own expectations of class and roles were clearly defined at beginning of class</li> </ul>	<ul style="list-style-type: none"> <li>Leader did not make roles of participants clear</li> <li>Confederates expressed confusion about roles</li> </ul>
<b>Self-Expression</b>	<ul style="list-style-type: none"> <li>Confederates mentioned how comfortable they felt in class</li> </ul>	<ul style="list-style-type: none"> <li>Confederates minimized self-expression and did not share feelings</li> </ul>
<b>Contribution</b>	<ul style="list-style-type: none"> <li>Leader used HR monitors to set group goals</li> <li>Confederates acknowledged participants ("Good job!")</li> </ul>	<ul style="list-style-type: none"> <li>HR monitors were used based on the individual</li> <li>Leader didn't set group goals</li> <li>Comments were general from leader and confederates</li> </ul>
<b>Challenge</b>	<ul style="list-style-type: none"> <li>Exercise routine was challenging</li> </ul>	<ul style="list-style-type: none"> <li>Exercise routine was equally challenging</li> </ul>

## RESULTS

- PC manipulation appeared to be successful with a significant difference for all the PC subscales ( $d = .47 - .64$ ,  $p < .05$ ) except for Challenge ( $d = .08$ ,  $p = .77$ )
- There were no significant differences between the climate groups for SPA ( $d = .08$ ,  $p = .359$ ) and SPE ( $d = .36$ ,  $p = .162$ )



## DISCUSSION

- Similar to Martin and Fox (2001) manipulation of the exercise class environment, this study manipulated the the PC of an exercise class
  - Safety subscales were all significantly different between groups; challenge did not emerge because both climates' tasks were equal in difficulty
- The effect of an acute manipulation of PC did not appear to translate immediately to differences in SPA or SPE
  - Although not significant, trends were in predicted direction
  - Previous studies identified individuals who were high in SPA

### Strengths

- Ethnically diverse population
- Use of confederates in manipulation

### Limitations

- Kinesiology students be a unique population and may not have the same level of body-related concerns as less active populations, which may limit the generalizability of results
- Manipulation of the classes were not representative of "general" exercise classes and reflected a one-time experience

### Future Directions

- Examine a long term PC manipulation
- Pre-screening for those who are exhibit high SPA and low SPE to participate