Development and Validation of the Social Exercise Self-Efficacy Measure (SESM): Assessing Fears of Social Exercise

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Abstract

Introduction: Physical activity is a major contributor to the improvement of both mental and physical health (Paxton et al., 2010). Some researchers have proposed that exercise should be included in standard treatment protocols (Strohle, 2008). However, it seems plausible that the public nature of many exercise opportunities may lead individuals with social anxiety disorder (SAD) to avoid exercise.

Study 1: 16 undergraduates
- Mostly female (n = 297; 72%)
- Mostly white (n = 367; 90%)
- Mean age of about 19 (M = 19.12; SD = 1.64)

Study 2: 118 undergraduates
- Mostly female (n = 73; 62%)
- Mostly white (n = 84; 71%)
- Mean age of about 19 (M = 19.31, SD = 1.20)

Participants

Measures

Social Exercise Self-Efficacy Measure (SESM)
- Developed for this study
- 3 subscales:
  - Social Exercise Self-Efficacy (SES; 5 items; e.g. I am confident that I could exercise with a group of people I do not know)
  - Gym Avoidance (GA; 4 items; I don’t go to the gym because I feel like people are looking at me)
  - Exercise Importance (EI; 3 items; How important to you is exercising?)

Straightforward Social Interaction Anxiety Scale (S-SIAS; Mattick & Clarke, 1998)
- Describes anxiety-related reactions to a variety of social situations
- Good to excellent reliability, and good construct and convergent validity (Heimberg & Turk, 2002, for a review)

Straightforward Brief Fear of Negative Evaluation (BFNE; Leary, 1983)
- Brief version of the original FNE (Watson & Clark, 1969)
- Measures fear of being negatively evaluated
- Fear of negative evaluation is hypothesized to be a core component of SAD

Social Phobia Scale (SPS; Mattick & Clarke, 1998)
- 20-item measure that assesses fear of scrutiny (performance fears)

Obligatory Exercise Questionnaire (OEQ; Paxman & Thompson, 1986)
- 20-item measure that assesses attitudes toward exercise
- Example items are, When I miss an exercise session, I feel concerned about my body possibly getting out of shape and When I don’t exercise I feel guilty

Frequency of Exercise in Public Setting
- One item self-report of number of times that exercise was completed in a public setting in the past week

Discussion

- Our results suggest that the SESM has excellent factor and convergent validity
- Social exercise self-efficacy and gym avoidance were highly correlated with three measures of social anxiety, whereas exercise importance was not.
- Fear of exercising in public may lead to avoidance of exercise, which may contribute to poor physical health outcomes within individuals with SAD.
- Clinicians treating individuals with SAD should consider using the SESM to assess fear of public exercise and create exposures designed to address this fear.

- Treatment that decreases fear of exercising in public and its associated avoidance may lead to decreases in social anxiety and increases in physical and mental well-being

Results: Factor Analyses

Study 1:
- Fit ranged from very good to excellent for a 3-factor structure
- CFI = .98
- TLI = .98
- RMSEA = .06

Study 2:
- Excellent fit for a 3-factor structure
- CFI = 1.00
- TLI= .99
- RMSEA = .04

Results: Convergent Validity

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<tr>
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<th>SES</th>
<th>EI</th>
<th>GA</th>
<th>PE</th>
<th>BFNE</th>
<th>SPS</th>
<th>S-SIAS</th>
<th>OEQ</th>
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<td>Self Efficacy (IES)</td>
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<td>.27**</td>
<td>.77</td>
<td>-.61**</td>
<td>-.42**</td>
<td>-.19</td>
<td>-.34**</td>
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<td>Exer Impor (EI)</td>
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<td>-.64**</td>
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<td>-.05</td>
<td>.70**</td>
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<td>Gym Avoid (GA)</td>
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<td>-.54**</td>
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<td>-.46**</td>
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<td>Pub Exer (PE)</td>
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<td>.16**</td>
<td>.49**</td>
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</table>

Note. SES = Social Exercise Self-Efficacy; EI = Exercise Importance; GA = Gym Avoidance; PE = Frequency of public exercise; S-BFNE = Straight forward Brief Fear of Negative Evaluation Scale; SPS = Social Phobia Scale; S-SIAS = Straightforward Social Interaction Anxiety Scale; OEQ = Obligatory Exercise Questionnaire. *p < .05; **p < .01; Diagonal = Cronbach’s Alpha.