Predicting Physical Activity:
The Role of Social Support and Self-as-Doer Identity
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Introduction

Physical Activity

❖ Only 21% of US adults meet the recommended amount of physical activity (PA). [1]
❖ PA is associated with better health, lower disease risk, better weight control, and greater academic achievement.[1,2]
❖ Investigating reasons and/or motivations that may increase PA is important in order to educate those who do not get enough PA and who may lack motivation for PA.

Social Support

❖ Social support is an important determinant of health behaviors such as PA.[3]
❖ Friends, family, and significant others can help an individual move toward their PA goals through emotional, instrumental, and financial assistance.[3]
❖ Exercisers with supportive spouses are more likely to adhere to exercise programs.[3]
❖ Support from friends has a stronger effect on PA than family.[4]

Self-as-Doer Identity

❖ The self-as-doer is a motivational identity that describes oneself as the doer of a behavior, wherein action and self are combined in working memory to form an identity which provides motivation for behaviors.[5]
❖ While self-as-doer identity has been related to health behaviors[6] there is limited research related to PA behaviors and less is known about the relationship between the self-as-doer identity and the role of social support.
❖ Self-as-doer is related to healthy eating behaviors, and therefore may be associated with PA.[7]

[1]CDC, 2014; [2]Brownson, Boehmer, & Luke, 2005; [3]Sallis, 1987;
[4]Belanger & Patrick, 2016, 2018; [5]Houser-Marko & Sheldon, 2006; [6]Brouwer, 2017, [7]Brouwer, 2015

Study Aims & Hypotheses

❖ There is limited research on the relationship between social support, self-as-doer identity, and their effects on PA.
❖ Therefore, the aim of the study was to explore how social support and self-as-doer identity are related to PA and whether one predicts physical activity above and beyond the other.
❖ Hypotheses: 1) Social support for exercise will be positively correlated with PA, specifically that support from significant others will be associated with greater PA rates. Self-as-doer identity will also be positively correlated with PA. 2) Self-as-doer identity will predict PA over and above social support for exercise.

Methods

Participants

❖ 129 College Students
  ➢ 18 males, 109 females
  ➢ Ages 18-45 (M=20.40, SD=2.86)
  ➢ 92.2% Caucasian, 3.10% African American, 3.10% Hispanic, 2.3% Asian or Pacific Islander, 0.8% Native American, 0.8% Palestinian
  ➢ 22.5% Freshman, 31.8% Sophomores, 21.7% Juniors, and 17.8% Seniors, 4.7% Fifth year, 1.6% Sixth year

Procedure

❖ Participants completed a survey with questions related to demographics, social support, and exercise behaviors.
❖ Participants then completed a writing activity about goals they had related to physical activity, and created self-as-doer identities related to those goals.

Measures

❖ Demographics:
  Age, gender, school year, race
❖ Social Support
  The Social Support for Exercise Habit Scales (Sallis, et al., 1987)
  Assesses social support from friends and family. For this study, a significant other scale was specifically created and added.
❖ Self-as-Doer Identity (Houser-Marko & Sheldon, 2006)
  Participants listed 6 goals related to physical activity and then created self-as-doer statements by adding an "er" suffix to the end of the object and verb of the goals statement. Examples include, "sit-up doer," "swimmer," "faster jogger."
❖ Physical Activity Behaviors
  The International Physical Activity Questionnaire Short Form (IPAQ-SF; Booth, 2000).
  Participants responded to how many of the last 7 days did they engage in vigorous, moderate, and walking behaviors. Metabolic equivalent (MET) minutes per week were calculated by taking MET level x minutes of activity x days per week.

Statistical Analysis

❖ In a secondary analysis, descriptive statistics, Pearson's correlations and a hierarchical multiple regression were performed.

Results

	1.	2.	3.	4.	5.
1. Friend Support					
2. Family Involvement Support	.36**				
3. Family Reward Support	.30**	.37**			
4. Significant Other Support	.42**	.16	.16		
5. Self-as-Doer Identity	.17	.21	.03	.09	
6. Physical Activity	.18*	.04	.12	.25*	.30*

* $p < .05$; ** $p < .01$; ***$p <.001$

Multiple Regression

❖ Social support accounted for 17.1% of the variance in PA behaviors, R^2=.171, $F(4,23)$=1.19, p=.34.
❖ The self-as-doer identity predicted an increase of 30.6%, (ΔR^2=.306, $F(1,22)$ = 12.88, p=.002) of the variance in physical activity above and beyond all types of social support.
❖ Self-as-doer identity contributed the most variance in PA behaviors.
❖ Hypothesis 2 that the self-as-doer identity would predict physical activity above and beyond all types of social support was supported.

Pearson's Correlations

❖ Physical activity was not correlated with family involvement or family reward support.
❖ Physical activity was positively and significantly correlated with friend support, significant other support, and the self-as-doer identity.
❖ Hypothesis 1 that physical activity would be positively correlated with social support for exercise was partially supported. Significant other support was associated with higher physical activity rates.

Variables	B	SE B	β	sr²
Block 1				
Friend Support	43.60	68.65	.12	.01
Family Involvement Support	-19.51	33.10	-.11	.01
Family Reward Support	308.25	255.92	.22	.03
Significant Other Support	25.25	54.57	.08	.01
Block 2				
Self-as-doer Identity	1735.24	483.51	.61*	.31

* $p < .05$; ** $p < .01$; ***$p <.001$

Discussion

❖ Significant other support and friend support are positively associated with PA, supporting the hypotheses and suggesting that having a significant other or a group of friends that are physically active can be associated with increased levels of PA.
❖ The lack of family support may be because college students are living away from home and have less frequent interactions with family.
❖ Self-as-doer identity had a significant effect on individuals' PA above and beyond social support, suggesting that individual, motivational factors account for more variance in PA behaviors than does the support of others.
❖ People who identify more with identities associated with exercise (e.g. gym goer, stairs taker, biker) were more likely to engage in PA, above and beyond their social support motivation.
❖ Findings suggest that health professionals who work with those seeking to increase physical activity behaviors, could focus on factors such as self-as-doer identity and social support when attempting to promote exercise because they can help motivate individuals to engage in physical activity.
❖ Future researchers could explore:
  ❖ the self-as-doer identity in an experimental setting and how it impacts individuals' decisions to exercise
  ❖ the role of social support in different age groups as the role of family and friends may change depending on age