

A STUDY OF SELF-EFFICACY OF UNIVERSITY STUDENT BY PHYSICAL ACTIVITY STAGES OF CHANGE

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ABSTRACT

The purpose of this study was to study and assess the self-efficacy of university students for physical activity. For this purpose, Two hundred and Ninety eight students from a Maharshi Mahesh Yogi Vedic Vishwavidalaya, Jabalpur (M. P.) were invited to participate in the study. Two hundred and eight students initiated the survey, but only 153 (100 male and 53 female) students completed the questionnaires, were selected as the subjects for the study. The Physical Exercise Self-efficacy scale prepared by Schwarzer & Renner, Brown (2005) and Physical Activity Stages of Change Questionnaire by Marcus & Simkin, (1993) were used for the purpose of data collection. To assess the self efficacy by physical activity stages of change of university students, means, standard deviations, and Analysis of Variance were computed. The results of the study indicated that the statistically significant difference existed among university students on self efficacy factor of self determination. The scheffe's Test of Post-hoc Comparison revealed the significant differences on stages of change of self-efficacy among university students between contemplation – preparation followed by action and maintenance; preparation – maintenance; and action- maintenance. The ratings of self-efficacy increased across the stages from pre-contemplation/contemplation to the maintenance stage.

Key words: self-efficacy, contemplation, preparation, action and maintenance.

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INTRODUCTION

Self-efficacy is the belief or perception an individual has of his or her own ability to complete a given task. In the constructs of the trans-theoretical model and exercise, self-efficacy is the belief or confidence that one can overcome obstacles to participate in exercise. He proposed that motivation to perform a certain behavior was based on two factors: expectations of outcome and cognitions about self-efficacy. Research has consistently shown self-efficacy to be the strongest predictor of exercise behavior Bandura (1982).

Recent research has shown that self-efficacy accounts for the majority of variance between the stages of change and exercise (Cardinal, et al., 2004; Marshal & Biddle, 2001; Wallace & Buckworth, 2001). Self-efficacy is predictive of exercise adherence in college students with a low self-efficacy resulting in a greater likelihood of relapse (Sullum et al., 2000).

Self-efficacy increases significantly from the pre-contemplation stage of change to the maintenance stage. Those individuals with low perceived confidence in their ability to exercise are more likely to be inactive compared to those with high levels of perceived confidence.

The first key is to develop an autonomous environment using the self-determination theory to increase young adults' stages of change and physical activity levels. An autonomy supportive environment provides a good reason for asking someone to participate, gives some choices to the person, acknowledges the person's feelings toward the activity. So, the purpose of this study was to study and assess the self-efficacy of university students for physical activity.

METHODOLOGY

Selection of Subjects:

Two hundred and Ninety eight students from a Maharshi Mahesh Yogi Vedic Vishwavidalaya, Jabalpur (M. P.) were invited to participate in the study. Two hundred and eight students initiated the survey, but only 153 (100 male and 53 female) students completed the questionnaires. This was a 73.50 % return rate of the total subjects studying in physical education and general education faculty. The mean age of the students was 19.47 years old.

Instrumentation:

The Physical Exercise Self-efficacy scale (PESES) prepared by Schwarzer & Renner, Brown (2005) has been used in recent research as a measure used to assess self-efficacy and exercise. The PESES is a five item scale that is measured on a four point Likert scale (1 = very uncertain, 4 = very certain). The item-total correlations were .74 to .76 and internal consistency was .88.

Physical Activity Stages of Change Questionnaire (PASCQ) by Marcus & Simkin, (1993) consists of four items representing the five stages of change in the transtheoretical model. The student was asked to answer four questions which reflected their current exercise behaviors. For example, physical activity was defined and then the student was asked to reply yes or no to "I am currently physically active" and "I intend to become more physically active in the next 6 months." Regular physical activity was then defined and the student was asked to answer yes or no to "I currently engage in regular physical activity" and "I have

been regularly physically active for the past 6 months.” The answers were assessed by a scoring algorithm. For example, a student would be in the pre-contemplation stage if they answered no to the first two questions. For a student to be in the maintenance stage, they had to answer yes to questions one, three, and four. The scoring algorithm determined the students’ particular stage at the time they completed the questionnaire , however, this questionnaire has been shown to be stable over a 2-week period (Marcus & Forsyth, 2003).

RESULTS AND DISCUSSION

To assess the self efficacy by physical activity stages of change of university students, means, standard deviations, and Analysis of Variance were computed.

Analysis of Variance for all the university students in relation to four stages of change were computed. To check the obtained F-ratio the level of significance was set at .01 level, and data pertaining to this have been presented in Table 1 to 21...

TABELE 1

MEANS AND STANDARD DEVIATIONS OF SELF EFFICACY IN RELATION TO
STAGE OF CHANGE OF UNIVERSITY STUDENTS

S.NO.	Physical Activity Stages	Self-efficacy	
		M	SD
1.	Contemplation(N=28)	2.20	.63
2.	Preparation (N=19)	2.56	.76
3.	Action (N=22)	2.61	.45
4.	Maintenance (N=84)	2.99	.60

The mean scores of decisional balance and self-efficacy by stages of change of university students have been depicted in figures 1

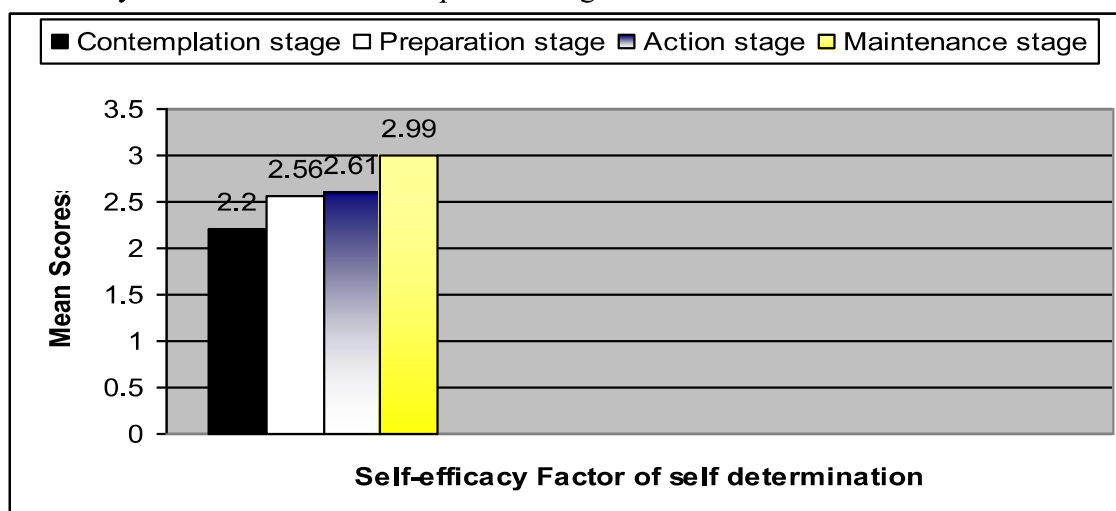


Figure 1: Mean Scores of Self-efficacy factor of Self Determination in Relation to Physical Activity Stages of Change of University Students.

TABELE 2
ANALYSIS OF VARIANCE OF SELF-EFFICACY BY STAGES OF CHANGE OF UNIVERSITY STUDENTS

Self-determination Factor	Source of Variance	df	Sum of Square	Mean Squares	F-ratio
Self-efficacy	Between Groups	3	14.69	4.89	13.13*
	Within Groups	149	55.59	0.37	

Significant at .01 level, $F_{01}(3,149)=3.91$

From Table 2, It is evident that the statistically significant difference existed among university students on self efficacy, as the obtained F-values of 18.49, and 13.13 were higher than the required $F_{01}(3, 149) = 3.91$.

As the F-ratio was found to be significant, Scheffé's Test of Post-hoc comparison was applied to study the significance of differences among university students on self-efficacy, the data pertaining to this have been presented in Table 3.

TABLE 3
SINGNIFICANCE OF DIFFERENCES AMONG UNIVERSITY STUDENTS BETWEEN ORDERED PAIRED MEANS ON STAGES OF CHANGE BY SELF-EFFICACY

Mean Scores					
Contemplation	Preparation	Action	Maintenance	Paired mean difference	Confidence Interval (C.I.)
2.20	2.56	-	-	0.36*	0.23
2.20	-	2.61	-	0.41*	
2.20	-	-	2.99	0.79*	
-	2.56	2.61	-	0..05	
-	2.56	-	2.99	0.43*	
-	-	2.61	2.99	0.38*	

*Significant at .01 level,

It is quite obvious from the table 3, that there were significant differences on stages of change of self-efficacy among university students between contemplation – preparation followed by action and maintenance; preparation – maintenance; and action-maintenance, as the paired mean differences of .36, .41, .79, .43 and .38 respectively were higher than the confidence interval (C.I.) of .23 But the mean differences of .05 was not significant at 0.01 level.

DISCUSSION

Self-efficacy was hypothesized to vary as a function of stages of change, and this hypothesis was supported. The self-efficacy was found to differ across the stages of change. Specifically, those students in the maintenance stage of self-efficacy factor of self determination rated more important than the other stages. The ratings of self-efficacy increased across the stages from pre-contemplation/contemplation to the maintenance stage. The significant differences on stages of change of self-efficacy among university students between contemplation – preparation followed by action and maintenance; preparation – maintenance; and action- maintenance,

CONCLUSIONS

Within the limitation of present study, the following conclusions are enumerated :

1. Significant differences were on stages of change of physical activity among university students between contemplation – preparation followed by action and maintenance; preparation – maintenance; and action- maintenance.
2. Statistically significant difference existed among university students on all factors of self- determination by stages of change.
3. Significant differences were found among university students on self efficacy by stages of change.

RECOMMENDATIONS

It is recommended that A similar study may be conducted on more population of university students involved in sports activities in India. A study may be replicated on Indian athlete at their different level of their participation.

IMPLICATIONS

1. The first key is to develop an autonomous environment using the self-determination theory to increase young adults' stages of change and physical activity levels.
2. Identify determinants of physical activity in first-year college students to develop interventions to maintain or increase physical activity.

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