

## **Exercise motivation of college students in relation to their Health related physical fitness**

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### **Abstract**

Grounded in self-determination theory (SDT), this study aimed at investigating the relationship of self determined motivational styles to health related fitness and perceived competence of learning among female college students of physical education. To assess Self Regulatory Motivational Styles, Exercise Self-Regulation Questionnaire (Ryan, & Connell, 1989) was used, measuring four styles of motivation namely extrinsic motivation, introjected motivation, Identified and Intrinsic Motivation. To assess Health related fitness, AAPHERD Test (1980) was used. These tests were administered on 50 female physical education students in the age range of 18-25 years of Gorakhpur. Descriptive statistics and correlation were adopted to analyze the data. Results revealed that the extrinsic motivational style indicated a significant and a negative relationship with flexibility (lower back) among the students.

**Keywords:** motivational styles, flexibility and Health related fitness

### **Introduction**

The importance of physical education (PE) in contemporary education system is now recognized worldwide. It is widely acknowledged that Physical Education (PE) can play a potentially important role in enhancing public health by creating positive attitudes toward exercise and by promoting health-related fitness programmes. However, these initiatives will have limited success if students are not motivated to participate actively in their PE lessons (Ntoumanis, 2001) [5]. Self-determination theory (SDT: Deci & Ryan, 1985, 1991) is a popular theoretical framework for the Investigation of motivation in exercise psychology. One aspect of the theory that has generated particular interest is its multidimensional conceptualization of intrinsic and extrinsic motivation. According to SDT, there are varying forms of motivation that represent qualitatively different ways in which a behavior can be regulated. The theory proposes that these forms of regulation lie along a continuum ranging from completely non-self-determined to completely self-determined regulation. The six different forms of regulation are labeled: a motivation, external regulation, introjection, identification, integration, and intrinsic regulation (Markland and Tobin, 2004). The self-determination continuum moves from more autonomous regulations to more controlling reasons for engagement in physical activity.

Sallis and McKenzie (1991) argued that positive experiences in Physical Education could influence youngsters to adopt physically active adult lifestyles which can improve public health. It is, therefore, important to understand the motivational, cognitive, and affective processes that can determine whether children/young people will regard Physical Education as a valuable, enjoyable, and rewarding experience, or as a worthless, boring, and humiliating one. Physical

education may have an important educational contribution to Students' personal development. It provides opportunities for enjoyment, for learning new motor skills and for cooperating with others. Therefore, it is important to examine students' motivation for participation in physical education classes (Hassandra *et al.* 2003).

However, although the behavior may be internalized when identified regulations are operating, it still is not completely self-determined because action is taken to achieve personal goals rather than for the joy of the activity itself. Introjected regulation refers to a more internal cause of behavior whereby the individual internalizes the reasons for acting, but is not truly self-determined. Typically in this case, the individual is acting out of avoidance of negative feelings (e.g. guilt) but an introjected regulation is also evident when individuals want to prove to themselves and others that they can demonstrate a positive attribute or state. External regulation of behaviour is controlled by rewards and threats and reflects low self-determination on the continuum (Markland and Tobin, 2004) [4].

Daley and Duda (2006) [7] in a cross-sectional survey design with a sample consisting of 409 (158 men, 251 women) university undergraduates aged 18-30 years, found that men and women who were more self-determined reported being more physically active over the previous 3 months. These results suggest that self determination may have an important role to play in the adoption and maintenance of health promoting behaviours in young adults. Despite the growing support for such propositions, Vallerand (2001) has indicated that limited attention has been afforded to these aspects of SDT's framework in physical activity research. The lack of attention to the self determined motivation and health related fitness relationship in physical education is surprising, given

the longstanding interest in learning about the motivational underpinnings of physical activity, sports and exercise (Fox, 1997) [2].

**Hypotheses**

Keeping in view the stated objectives, the following hypotheses were formulated. Identified and intrinsic motivation was expected to be positively related with the dimensions of health related fitness and a non directional hypothesis was framed between extrinsic regulation, introjected motivation and dimensions of health related fitness.

**Method**

Present study was conducted on 50 non professional female physical education students of MGPG College, Gorakhpur (U.P), those were engaged in regular exercise behavior. The age of subjects ranged from 18-25 years.

**Tools**

Exercise Self-Regulation Questionnaire developed by Ryan, & Connell (1989) was used to find out the reasons why a person exercises regularly or engages in other such physical activities. Questionnaire provides responses that represent

external regulation, interjected regulation, identified regulation, and intrinsic motivation. Health Related fitness test of American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 1980) was used to measure health related physical fitness of the subjects. The test was composed of Nine Minute Run and Walk, Skin fold measurements (Triceps and Sub scapular), Modified Sit-Ups and Sit and reach tests. Level of participation in sports, i.e. state /inter college participation and National/International participation were also taken into account.

**Table 1:** Findings and Discussion

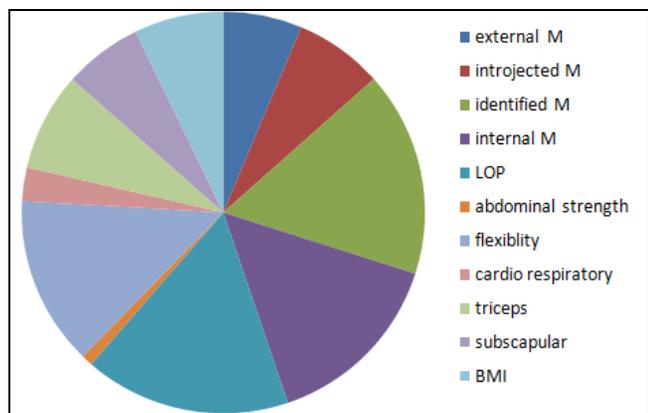
S.N	Variables	Mean	S.D
1.	External motivation	8.79	4.41
2.	Introjected motivation	9.91	4.58
3.	Identified motivation	22.90	3.30
4.	Internal motivation	20.70	3.82
5.	LOP	23.10	4.41
6.	Abdominal strength	1.24	0.24
7.	Flexibility	18.92	7.32
8.	Cardio respiratory	30.75	4.65
9.	Triceps	1100.00	240.10
10.	Subscapular	8.75	4.50
11.	BMI	10.00	5.10

LOP- level of participation (state/national/international)

**Table 2:** Intercorrelation matrix for the total sample (n=50)

	External m	introjected m	identified m	internal m	LOP	abdominal strength	Flexibility	Cardio	triceps	sub scapular	BMI
External m	1.00	0.57	0.05	0.11	-0.38	0.13	-0.36	0.03	-0.10	0.08	-0.09
Introjected m		1.00	0.23	0.50	-0.08	0.13	-0.13	0.17	-0.21	-0.11	-0.10
Identified m			1.00	0.61	0.05	-0.17	-0.07	0.18	-0.11	-0.13	-0.04
Internal m				1.00	0.08	0.03	0.08	0.16	-0.02	-0.06	0.01
LOP					1.00	0.05	0.30	0.25	-0.12	-0.10	1.42
Abdominal flexibility						1.00	0.17	0.11	-0.30	-0.22	-0.10
Cardio							1.00	0.16	-0.05	-0.07	0.02
Triceps								1.00	-0.02	-0.02	0.16
Subscapular										1.00	0.58
BMI											1.00

**Graphical presentation of means of v ariables**



**Fig 1**

In line with the hypotheses stated, the data were processed. A perusal of in tercorrelation matrix (Table-1) showed that

participants scored highest on Identified motivation which implies that the exercisers in the present study seem to engage in their physical activities because they personally find it valuable or important to their self, more so than other motives. A perusal of inter correlation matrix (Table-2) for the sample indicated that External motivation was negatively and significantly related with the dimension of flexibility (p<.01) and with the level of participation of the students (p<.01). No significant relationships emerged between any other dimension of motivation and the dimensions of health related fitness. Self-determination theory has become a popular framework for examining motivational issues in physical activity contexts. Past research in the physical domain and other settings has indicated that positive emotivational consequences (e.g. behavioural persistence, task involvement, enhanced psychological well-being, and quality of life) are positively associated with more autonomous regulations and/or negatively linked to morecontrolling regulations (e.g. Ryan & Deci, 2000, Reinboth, Duda, & Ntoumanis, 2004) [7]. The practical importance of this distinction between motives

has emerging support in the physical activity domain, with more self-determined motives distinguishing physically active from inactive adults (Landry & Solomon, 2004) <sup>[3]</sup>, predicting greater frequency of weekly exercise participation (Wilson *et al.*, 2004) and underpinning prolonged sport involvement (Pelletier *et al.*, 2001). Several researchers have reported that self-determined identified and intrinsic regulations are positively related to future intention to exercise, current exercise behaviour, and physical fitness in adults and young people in both exercise and leisure contexts.

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