Comparison of exercise versus sport participation motives among university students of Odisha state

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Abstract
Studies have demonstrated that different motives may operate behind participation in various types of physical activity such as exercise (physical activity that is volitional, purposive and requires simple motor skills) versus sport (physical activity that is usually competitive, has organized rules and requires complex motor skills). In order to extend existing literature on sport and exercise psychology, motives for exercise participation versus sport engagement of Odisha university students were examined. Specifically, three hypotheses were tested: (1) That health and fitness motives are more associated with exercise than sport; (2) That motives concerning weight management and appearance are related more to exercise than sport, and (3) Motives related to social engagement figure in participation in sport more than in exercise. One hundred ninety-four university students of Odisha state completed Exercise Motivation Inventory 2 (EMI-2, Kilpatrick et al. 2005, Markland & Ingledew 1997) to differentiate motives for exercise versus for sport participation. All three hypotheses were supported. Furthermore, enjoyment appeared to be an important factor in sport engagement.

Keywords: Motives towards physical activity, exercise behavior, sport engagement, participation motives

1. Introduction
International evolutions have made different aspects of contemporary life, Physical Education and sport necessarily that it seems inevitable to ignore and avoid them. Physical Education as an educational-training process includes gaining motor skills, development and maintenance of physical fitness for health, acquisition of scientific knowledge about physical activities, exercise, development of positive imagination and mentality about physical activities as a means of improvement in human performance and implementation, which plays an impressive role in individuals' growth and development. Some purposes have been given to this science. Sport for everybody is the concept of public sport that consists of age ranges of three to over seventy, it includes different types of physical activities such as irregular and spontaneous native exercises, and regular exercises like doing exercises in the mornings, activities and recreations in parks and campus, walking on the maintains and fitness classes and mostly predicated as non-competitive and cheap team sports. On the other hand, today lack of body fitness in cities has been started from children and even it could be observed in old people. It seems that sport as a strategic solution and public sports as a cheap and pleasurable means can improve body fitness problems and on the other hand health issues in urban life.

The concept of motivation is one of fundamental concepts and subjects in human resource management. Motive, as an arousal state that forces the organism to act, and causes to stimulate individuals' behaviors, lead and coordinate their behaviors towards a certain way. Individuals are different in terms of ability and willing or motivation to do a job. One of different kinds of motive is the motive for sport which is derived from self-decision theory.
The dimensions of the theory are: internal motivation, external motivation and lack of motive. Internal motivation refers to a kind of behavior that a person expresses to have enjoyment and internal contentment. In external behaviors, a person do an action in order to receive external rewards, but lack of motive happens when no dependency is observed between the action a person is going to do and the external rewards will be received.

Today, in Indian universities sport activities includes two units of curriculum in Physical Education (first and second) that is mandatory for students from other disciplines. Also extra-curricular sport activities in universities consist of three sections: competitive section (competitions in universities and between universities), educational section (learning sport skills) and public recreational section (optimizing students' leisure time). Extra-curricular sport activities can be plotted on a continuum in which public recreational and strong disorganized activities are placed in one side and sport activities that need planning and regulations are in other side which must be directed by professionals, proper equipments and skilful referees. Domestic researches show that only 29.3 percent of athletic activities in universities are dedicated to public sports and recreational activities. However, the students requested their needs based on their priority order such as programs for sport and recreation (445 %), training and learning sports skills (32%) and sport competitions (26.6 %).

The distinction between exercise and sport is not an absolute one, as evidenced by many leisure-time physical activities such as swimming and running, which can be categorized as either depending on the social contexts in which they are performed. In this article, we follow the exercise versus sport distinction as a starting point following other exercise and sport psychologists to explore how motivational processes may differ between exercise and sport participation.

To promote physical activity, a good starting point is to identify the reasons why people engage in exercise and sport, what sport and exercise psychologists have termed participation motives. Participation motives, also called surface motives or goal contents, provide important answers to the basic question of "what motivates people to exercise and do sport?" Studies have demonstrated that these participation motives play an important role in influencing exercise behavior and in improving an individual’s sense of self-worth and psychological well-being.

Some of the most common physical activity participation motives include: health and fitness promotion, weight management and appearance concerns, social engagement, and enjoyment (Allender, Cowburn & Foster 2006) [1]. Many people turn to physical activity to obtain instrumental benefits such as fitness and avoidance of ill health, sometimes at the advice of health care professionals. Others pursue exercise and sport, often in combination with other lifestyle changes such as diet and nutrition, for other extrinsic reasons such as to lose weight and achieve personal goals related to bodily appearance. Some enthusiasts incorporate exercise and sport in their everyday lives as a form of socially engaging activity with friends, family, or a romantic partner. And others are driven by the sheer enjoyment of physical activity without much attention to the external rewards that follow, a phenomenon also known as intrinsic motivation. Multiple motives are also believed to be possible, and in fact may operate differentially across various stages of physical activity participation.

Our central interest in this paper is in the differences in motives for participating in exercise versus in sport. Research suggests that exercise participation may be more extrinsically motivated than engagement in sport. Extrinsic motives such as health and fitness (Kilpatrick et al. 2005) [10], appearance and other body-related motives (Frederick & Ryan 1993) have consistently emerged in the literature as drivers of exercise behavior. On the other hand, when asked why they participate in sport, enthusiasts are more likely to cite enjoyment, fun, or interest (Frederick & Ryan 1993, Kilpatrick et al. 2005 [10], Ryan et al. 1997), competence (Frederick & Ryan 1993, Ryan et al. 1997), and social engagement including competition (Kilpatrick et al. 2005) [10].

With the growing evidence that members of the general population in Asian societies such as the Philippines do not achieve the sufficient levels of physical activity required to promote health, it is an important task for researchers in exercise and sport psychology and allied fields to examine factors that drive people to be more physically active in daily life. Empirical research that examines participation motives for the two major classes of physical activity, exercise and sport, is an important step in not just extending and replicating findings in this area of research but also for guiding local health authorities and exercise professionals toward better, locally contextualized physical activity promotion programs.

The current study aimed to answer the question of how different Odisha students’ participation motives are for exercise compared to those for sport.

2. Materials and method
2.1 Participants: One hundred and ninety four students (174 females, 16 males, 4 did not specify) from a private university in Bhubaneswar participated in this study. Ages ranged from 15 to 22 years with a mean of 17.13 (SD = 0.94). The participants reported engaging in exercise and/or sport one to three times per week, for at least 15-30 min per session. The three most cited exercise activities were: jogging, walking and running. For sport, the most common activities were: volleyball, basketball and badminton.

2.2 Instruments. Participation motives: Participation motives were measured using modified versions of the Exercise Motivation Inventory-2 following the procedures by Kilpatrick and co-workers (2005) [10]. The EMI-2 is comprised of 51 motive items that form three broad subscales identified through factor analysis. Participants rated each item on the EMI-2 in response to the prompt “Personally I exercise (or might exercise)…” along a Likert-type scale ranging from 0 (not at all true for me) to 5 (very true for me). Two versions of the EMI-2 were presented to each participant, modified similar to the procedures in previous research comparing exercise versus sport participation motives using a repeated-measures design (Kilpatrick et al. 2005) [10]. In particular, the sport version of the EMI-2 was reworded to refer to engaging in sport, rather than exercising. Definitions for exercise and sport were also presented as part of the instructions for participants to ensure level understanding of how the two activities may be distinguished.

Internal consistency of both the exercise and sport versions of the EMI-2 were high, with subscale Cronbach’s α’s ranging from 0.89 to 0.92 and from 0.89 to 0.93, respectively. Overall reliability coefficients for both the exercise and the sport version of the EMI-2 were the same, Cronbach’s α = 0.97.
2.3 Procedure: Permission to conduct the study was obtained by the fourth author from pertinent officials of the university. With the assistance of physical education instructors, students were provided with a brief background of the study and verbal instructions on how to complete the questionnaire. They were also informed that participation in the study was voluntary and that their confidential responses would have no bearing on their grades or their final performance in class. On average, the respondents took 10-20 min to complete the questionnaire.

3. Results

Initial data inspection indicated that four participants had incomplete responses; they were thus, removed from the dataset. The results presented below are based on the final analytic sample of $N = 190$ participants.

Results showed that health and fitness motives do appear to be more important in motivating exercise behavior ($M = 3.69$) than sport behavior ($M = 3.60$) as we hypothesized, $t(189) = 2.62, p = 0.009$. The magnitude of the difference was small (Cohen’s $d = 0.19$). Our first hypothesis, that exercise behavior compared to sport participation could be more strongly driven by health and fitness motives was supported.

Table 1: Endorsement of three participation motives for exercise versus sport.

<table>
<thead>
<tr>
<th>Motive</th>
<th>Activity</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health/Fitness</td>
<td>Exercise</td>
<td>3.69</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>Sport</td>
<td>3.60</td>
<td>0.63</td>
</tr>
<tr>
<td>Appearance/Weight</td>
<td>Exercise</td>
<td>3.82</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>Sport</td>
<td>3.65</td>
<td>0.81</td>
</tr>
<tr>
<td>Social Engagement</td>
<td>Exercise</td>
<td>3.12</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>Sport</td>
<td>3.46</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Our second hypothesis on the relative importance of appearance and weight-related motives in exercise but not sport, was also supported by the data. Participants rated appearance/weight concerns to be significantly more important in exercise ($M = 3.82$) than in sport ($M = 3.65$), $t(189) = 4.59, p = 0.001$. Effect size was moderate (Cohen’s $d = 0.33$). Finally, social engagement motives were found to be less associated with doing exercise activities ($M = 3.12$) but more motivationally relevant for engaging in sport ($M = 3.46$) as hypothesized, $t(189) = 6.83, p = 0.001$. Effect size was also moderate (Cohen’s $d = 0.50$). Because the EMI-2 also contained items that form an ancillary enjoyment subscale that is independent of the three main motives, we also explored the role of this variable in motivating exercise versus sport participation. Enjoyment, a proxy measure of intrinsic motivation, has long been shown to be a powerful motivator in leisure-time physical activity, for both exercises and sport participation. Data from our participants suggested that sport, significantly more so than exercise, is associated with enjoyment motives, $M = 3.72$ versus $M = 3.44$ respectively, $t(189) = 4.91, p = 0.001$, Cohen’s $d = 0.36$.

4. Discussion

Our findings are consistent with previous research indicating that participation motives in exercise differ from those in sport, Kilpatrick et al. 2005 [10]. Although there may be overlaps in the actual activity elements involved, the distinction between exercise and sport appears to a valid one, not just conceptually or sociologically, but also motivationally. Motives for both exercise and sport are no doubt multiple and potentially shared; however, our findings indicate that useful divergences are at work. Exercise was more associated with concerns related to health, fitness, weight loss, and appearance - participation motives that are typically considered forms of extrinsic. That is, students may engage in exercise with the mindset of doing so in order to achieve outcomes that are external and separable from the act of exercise itself, such as losing weight or avoiding illness. Generally, extrinsic motivation, such as exercising to lose weight in particular parts of the body like the midsection ("spot reduction") and other appearance-related concerns, is associated with low adherence to long-term physical activity. This may be because the desired changes in weight and physical appearance take time and may not fully conform to an individual’s expectations. On the other hand, health and fitness motives, though typically extrinsic, has been found to enhance exercise behavior, especially when individuals find personal relevance in the activity and assimilate it as part of their cherished values and needs. When such internalisation takes place, exercising for extrinsic reasons like health and fitness moves closer to intrinsic motivation and is more likely to be sustained in the long term.

Engaging in sport, on the other hand, was more associated with motives related to social engagement as well as to enjoyment. Desiring to be with classmates, friends, romantic partners, and family via sport can be a powerful prompt for physical activity. Many sport activities such as those most frequently engaged in by participants, including volleyball, basketball, and badminton, involve high degrees of social interaction and can thus provide a sense of belongingness and connectedness to significant others. In addition, enjoyment was found to be more important in motivating sport but less so for exercise. As an expression of intrinsic motivation, enjoyment is a very robust driver of physical activity. When an activity is enjoyable, challenging, and fun, individuals readily engage in it with playfulness, vigor, and commitment; they require little or no extraneous incentives to do so. It is not surprising then that intrinsic motives in physical activity are associated with long-term adherence (Kilpatrick et al. 2005) [10], especially when the activity is associated with enjoyment, a sense of competence, and an opportunity for social interaction as in the case of a number of sport activities. From a physical activity promotion perspective, results of this study provide some implications for program design. Other scholars and practitioners of physical activity promotion argue that the most effective interventions are those with content that appeals to the participation motives that individuals bring to the physical activity setting.

5. Conclusion

Comparison of exercise versus sport participation motives provides additional evidence that the motivational underpinnings of physical activity varies by the type of activity. Exercise participation is associated more closely with motives concerning appearance and weight, as well as health and fitness, while sport participation is linked more to social engagement motives as well as sheer enjoyment. While more extrinsic outcomes like improved appearance or weight loss may help initiate people to participate in physical activity, developing intrinsic or more self-determined motivation is desirable for long-term participation. Physical activity leaders and program directors should look into strengthening physical activity programs that emphasize sport for health, not just exercise, in order address the problem of physical inactivity among students. Programs that provide a wider range of activities, including both exercise for the appearance and
health-motivated, and sport for the social engagement-seekers - may encourage more participation, enjoyment, and long-term adherence to activities that promote health and overall well-being.

6. References
15. Murcia JAM, Coll DGC, Martin-Albo J, Gimeno EC.