

ASSESSMENT OF SELF-EFFICACY OF UNIVERSITY STUDENT FOR PHYSICAL ACTIVITY

Dr. Rajkumar Sharma* & Dr. Ashish Kumar Nigam**

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.

* Grade –I Gymnastic Coach, Sports authority of India, S.C.C. District Sports Complex, Seepat road, Bilaspur (CG)

* Professor, Department of Physical Education, Rajeev Gandhi College of Physical Education, Bhopal (M.P.)

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 Vishwavidyalaya, 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

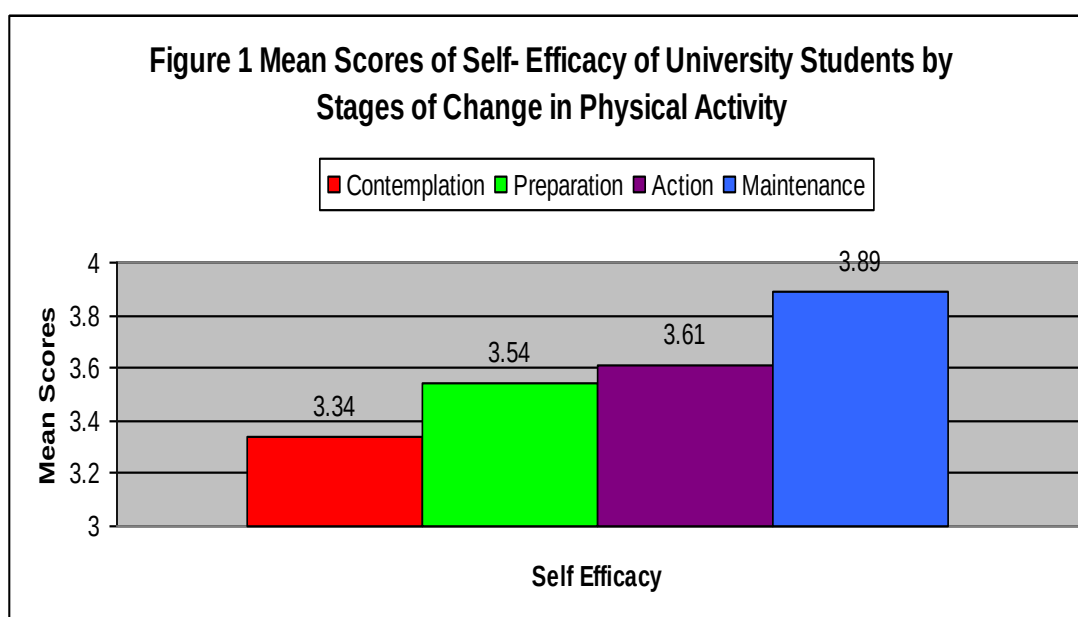
To assess the self efficacy by physical activity stages of change of university students, means, standard deviations, and Analysis of Variance were computed.

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 .05 level, and data pertaining to this have been presented in Table 1 to 2

TABLE 1
MEANS AND STANDARD DEVIATIONS OF SELF EFFICACY OF UNIVERSITY STUDENTS BY STAGE OF CHANGE

S.NO.	Physical Activity Stages	Self-efficacy	
		M	SD
1.	Contemplation(N=19)	3.34	0.44
2.	Preparation (N=10)	3.54	0.23
3.	Action (N=11)	3.61	0.64
4.	Maintenance (N=23)	3.89	0.68

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



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

Source of Variance	df	Sum of squares	Mean Square	F-ratio
Between Groups	3	0.92	0.31	1.16
Within Groups	59	15.54	0.26	

Significant at .05 level, $F_{05}(3,59)=2.76$

From Table 10, It is evident that the statistically significant difference was not existed among university students on self efficacy, as the obtained F-value of 1.16 was less than the required value of $F_{05}(3,59)=2.76$.

DISCUSSION

Self-efficacy was hypothesized to vary as a function of stages of change. The self-efficacy did not found to differ across the stages of change. The ratings of self-efficacy increased across the stages from pre-contemplation/contemplation to the maintenance stage. Statistically significant differences on stages of change of self-efficacy among university students was not observed.

CONCLUSIONS

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

1. Significant differences was not exhibited in self-efficacy among university students by stages of change of physical activity i.e. contemplation, preparation, action and maintenance.
3. Mean 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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A COMPARATIVE STUDY OF BODY COMPOSITION AND BMI BETWEEN MALE AND FEMALE STUDENTS

Dr Rajat Kumar Banerjee* Dr Ashish Kumar Singh** Dr Sandeep Kumar Rai***

ABSTRACT

The purpose of the Study was to compare Body Composition and BMI between Male and Female Students. For the purpose of this study, 100 (male=50 and female = 50) students regularly participating in sports or physical activity programmes were randomly selected. The students were selected from Noida College of Physical Education, Noida (U.P.). To determine the BMI and body composition of students, the height, weight, skin-folds (Triceps, Suprailiac, and Thigh) for female and Chest, Abdomen, and Thigh skin folds for male) were taken with the help of Skin-fold Caliper. The height is measured in centimeters, weight in measured in kilogram and the skin-fold is measured in millimeters. To compare the BMI and body composition of male and female students mean, standard deviation and t- test were calculated at 0.05 level of significance. The results of the study revealed that the significant difference was not found between male and female students in their BMI. But the significant difference was exhibited between male and female students in their composition.

* Associate Professor, Department of Physical Education, Bhalerao Science College, Nagpur (M.S.)

** Assistant Professor, Noida College of Physical Education, Noida (U.P.)

*** Assistant Professor, Noida College of Physical Education, Noida (U.P.)

INTRODUCTION

Today, there is a growing emphasis on looking good, feeling good and living longer, increasingly, scientific evidenced tell us that one of the keys to achieving these ideals is fitness and exercises. Getting moving is a challenge because today physical activity is less a part of our daily lives. There were fewer jobs that require physical exertion. We have become a mechanically mobile society. Relying on machines rather than muscles to get around, in addition, we have become a nation of observers with more people (including children) spending their leisure time pursuing just that leisure. Consequently, statistics show that obesity and overweight, the problems that come with high blood pressure, diabetes, cardiac arrest, etc. are on the rise. But statistics also show that preventive medicine pays off, so one should not wait until his/her doctor gives an ultimatum. Everyone must take the initiative to get active now.

The purpose of the Study was to compare Body Composition and BMI between Male and Female Students.

METHODOLOGY

Selection of Subject:

For the purpose of this study 50 male and 50 female students regularly participating in sports or physical activity programmes were randomly selected. The students were selected from Noida College of Physical Education, Noida, U.P.

Administration of Test and Collection of Data:

To determine the BMI and body composition of students following measurements have been taken: height, weight, skin folds for female (Triceps, Suprailiac, and Thigh), skin folds for male (Chest, Abdomen, and Thigh).

The height was measured in centimeters, the weight in measured in kilogram and the skin-fold measured in millimeters.

FINDINGS

To compare the BMI and body composition of male and female students means, standard deviations and t -test were calculated at 0.05 level of significance.

TABLE 1
SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF BODY
MASS INDEX OF MALE AND FEMALE STUDENTS

Sex	Mean	MD	σ DM	t-ratio
Male	21.04	.90	.517	1.74
Female	20.14			

Insignificant at .05 level

Table-1 reveals that there was no significant difference between male and female students in their BMI, as the obtained t- value of 1.74 was less than the required value of 't'0.05 (98) =1.98.

TABLE 2
SIGNIFICANCE OF DIFFERENCE BETWEEN MEAN SCORES OF BODY
COMPOSITION (FAT PERCENTAGE) OF MALE AND
FEMALE STUDENTS

Sex	Mean	MD	σ DM	t-ratio
Male	10.64	8.10	1.13	7.17*
Female	18.74			

Significant at .05 level, t 0.05 (98) = 7.16

Table 2 clearly shows that the statistically significant difference existed between male and female students in their fat percentage, as the obtained t- value of 7.17 was greater than the required value of 't'0.05 (98) =1.98.

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INJURY DURING PERFORMING FUNDAMENTAL SKILLS IN THE GAME OF CRICKET

Dr. Ashish Kumar Nigam* Aradhna Saxena**

ABSTRACT

Impacts in sport can cause severe and fatal head, spinal and thoracic injuries. As sports have developed during the last half century, methods have been developed to control injury risks, such as rule modifications, helmets, padded clothing and training. Research into sports injury can assist in reducing injury risks and also identify mechanisms and tolerance limits for lower severity injury. The paper provides an overview of impact injury risks during performing fundamental skills as well as during competition i.e. Batting, Bowling and Fielding in the game of Cricket including head and neck, upper limb, Lower limb and trunk. The main focus of the paper is injury control methods, and their success in reducing injury have been given in this research article.

* Professor, Department of Physical Education, Rajeev Gandhi College of Physical Education, Bhopal (M.P.)

** Lecturer, Maharshi Mahesh Yogi Vedic Vishwavidyalaya, Jabalpur (M. P.)

INTRODUCTION

Cricket is a game of long endurance activity includes the fundamental skills i.e. batting, bowling and fielding, the three elements. that make up the game of cricket. each carry their own injury risks. The severity of the injury will determine how long the player must stay away from the field, but it is also important for therapists to take stock of the mode of injury. In the game of cricket during the performance of different type of skills and tactics of play, mostly head , neck, upper limb, lower limb and trunk related

Incidence of injury to different parts of the body (Stretch, 1993 & 2003)				
	Head and neck	Upper limb	Lower limb	Trunk
% of total injuries occurring in this area	9.1	34.1	37.5	19.3
Injury Type	Muscle spasm and strain: cervical spine	Fractures: phalanges and metacarpal; joint injuries: shoulder	Muscle strains, tears (quadriceps, hamstring); joint injuries: knee, ankle, patella	Mainly muscle strain, spasm and stress fractures: lumbar spine, abdominal muscles, ribs

BOWLING

Bowling, not surprisingly, is the most risky activity, accounting for 41.3% of all injuries. The action of fast bowling places immense stresses on the spine and many fast bowlers are lost to the game because of low-back problems. The movements of hyperextension, lateral flexion and thoraco-lumbar rotation in combination with a jerk force occurring when the fast bowler lands during his delivery, can all contribute to the development of spondylosis and spondylolisthesis.

In both fast and spin bowling, technique problems and over-use have been implicated in stress fractures of the pars interarticularis (the arch at the bony bridge that holds together the superior and inferior articular processes of a vertebral body). Hard castle et al reported an incidence of 54% of pars interarticularis defects in their study (Hard castle, et al., 1966).

The diagnosis of pars interarticularis fracture can often be made clinically in fast bowlers who present with back pain causing loss of significant playing time (two weeks or

more). On examination there is spasm of the back muscles with tenderness present in the line of the facet joints on the opposite side of the bowling arm with no loss of movement. Plain radiographs are often normal and the diagnosis of a pars interarticularis fracture is confirmed by CT scan.

For conservative management of pars defects, the initial treatment will be rest, supervised rehabilitation and re-education. It is vital to complement physiotherapy with analysis of the player's bowling action and appropriate modifications to technique. The main aim here should be to develop a style that places less stress on the lumbar area, without decreasing performance.

If pain persists, temporary re-deployment may be advisable (getting an all-rounder, for example, to concentrate solely on batting). Surgery becomes an option if conservative methods are unsuccessful. In surgery, a screw is passed across the fracture with additional bone graft (Buck's repair). In the study by Ranawat et al. (2007) of 18 cricketers with stress-related pars interarticularis fracture, eight responded to conservative treatment and returned to active sport; and all 10 who required surgery returned to the professional game.

Shoulder injuries in cricket tend to result from throwing but can be aggravated by bowling, because of the repetitive forces involved. In a good bowling action, the shoulder should not be subjected to forces that lead to instability. The arm should not get into the position of 'apprehension' (abduction and forced external rotation), as this is the mechanism that subjects the capsular ligaments to forces that threaten instability.

Even with a good bowling action though, over-use injuries can weaken the rotator cuff and allow increased translational movement of the humeral head, resulting in instability and shoulder pain. With increased translation of the humerus, the long head of biceps is recruited to help stabilize the joint. This in turn can lead to traction on the long head of biceps tendon, predisposing the shoulder to tendonitis and superior labral anterior posterior (SLAP) lesions. Slow leg-spin bowlers develop internal rotation force at the end of their delivery and are therefore especially prone to these over-use injuries.

FIELDING

Fielding injuries comprise 28.6% of the total. Outfield players have to throw the ball accurately and at speed into the wicket, subjecting the shoulder of their throwing arm to the same forces and injuries that occur in baseball.

The later phases of throwing produce large 'distraction' forces (a force directed along the upper arm towards the elbow joint, in effect wrenching the arm away from the shoulder joint). The eccentric loading of rotator cuff muscles needed to resist these forces can stretch the muscles beyond their tensile limit, leading to both macroscopic and microscopic trauma, most commonly from the mid-supraspinatus posterior to the mid-infraspinatus area.

Injured outfield players tend to use a bowling action to return the ball when fielding (powerful throwing is impossible with a significant shoulder injury). This is less painful, can develop similar power to a throw and is very accurate. It does, however, take rather longer to prepare and deliver the ball.

The acute phase of a shoulder injury requires an accurate diagnosis, time for tissue healing, and reduction of pain and inflammation. This is followed by pain-free range-of-motion exercises, isometric exercises to prevent muscle atrophy, and efforts to regain scapular control. The acute phase ends when tissue healing, minimal pain and passive movements of 66% to 75% of the opposite side are achieved.

The recovery phase aims to regain normal active and passive shoulder movements, continued improvement in scapular control, and further improvements in upper extremity strength. Finally, the functional phase promotes increased power and endurance of the upper limb, continued increase in multi-plane neuromuscular control, and introduction of sports-specific activity before return to active play.

If out-fielders suffer with shoulder problems, close fielding carries a high risk of injury to the eyes, and facial or soft tissue injuries. Moreover, the role of the close-in fielders in stopping fast traveling balls and rapidly returning them to the wicket predisposes them to injury to all parts of the body.

The speed of the ball, and the fact that fielders tend to keep their eyes on it rather than on other fielders means they occasionally collide with each other or the boundary fence, causing head, neck, and facial injuries.

Fielding injuries also reflect the vulnerability of the bare hands when struck by a cricket ball. (Belliappa and Barton, 1991) reviewed 64 cricketing injuries of the hand and found that most occurred during fielding. The peripheral digits were most frequently involved and joint injuries predominated. These included soft tissue injuries with minor avulsion fractures, fracture dislocation at the base of the middle phalanx with dislocation of the proximal interphalangeal (PIP) joints, mallet finger, recurrent collateral ligament injuries of the distal interphalangeal (DIP) and PIP joints, and thumb injuries – mainly fractures of the condyle of the proximal phalanx, with or without dislocation.

All the players on the fielding side are unprotected except for the occasional close-in fielder who uses shin-pads and a safety helmet (but who is not allowed to wear gloves) and the wicket keeper, who routinely wears leg pads, lower abdominal guards and inner and outer gloves. Despite this protection, wicket keepers frequently injure their hands. Repeated impact of the ball on their fingers causes recurrent collateral ligament damage leading to symptomatic degeneration of the DIP joints of the index and the little finger (Belliappa & Barton, 1991):

Finger injuries are usually treated by neighbor (buddy) strapping. If there is rotational deformity or the fracture fragments are not reduced properly, surgical intervention is required. Thumb fractures are mainly treated by open reduction and fixation of the fracture with either a wire or a screw.

BATTING

Batsmen incur 17.1% of the injury toll, mainly from the direct impact of the ball or from over-use injuries because of long hours at the crease.

Although batsmen always wear knee and shin pads, they do not always wear other protective clothing. It is common to wear a 'box' over the scrotal area, some use thigh pads, and most batsmen will wear a helmet when facing a fast bowler. A direct blow to the shoulder and upper arm area by a rising delivery is legal and bowlers use it tactically to

unsettle a batsman. The rising ball can cause injury to the eye, face, hand and wrist or soft tissue injury to shoulder and upper arm. Simple soft-tissue treatment, including ice, non-steroidal anti-inflammatory medication, and early active mobilization, can help to reduce the effect of these injuries.

Batting can also cause stress fractures of the pars interarticularis. It usually responds to conservative management and may require a change of batting style.

OTHER COMMON INJURIES

Both batting and bowling involve running cumulatively long distances during a game, so over-use injuries of the legs can arise, such as stress fractures, shin pain, patellar tendonitis and muscle tears. Treatment consists of initial rest, non-steroidal anti-inflammatory medication and later, active mobilization. Exercises to maintain lower-limb fitness and lumbar flexibility and strength should continue throughout the rehabilitation phase.

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ROLE OF SELECTED ANTHROPOMETRIC VARIABLES IN EXPLOSIVE STRENGTH OF FEMALE BASKETBALL PLAYERS

Brijesh Kumar Yadav* Dr.Priti Pandey**

ABSTRACT

The study has been aimed to identify the relationship between selected anthropometry and explosive strength and comparison of the same variables between District and sub-Division level Basketball female players. Forty District and sub-Division Basketball players having age of range 21-25 years were randomly selected from four clubs of three Districts of Uttar Pradesh. Among the anthropometric measurement Lower limb length, upper limb length, and circumferences of chest, thigh, calf, and bicep were measured. Leg and arm explosive strength were measured by vertical jump and medicine ball throw test respectively. After analyzing the data it was found that the District players were superior to sub-Divisional players in explosive strength. The limb length may be considered as one of the determining factors of explosive strength.

*Assistant Professor Dr.Ram .Manohar .Lohia .Awadh University,Faizabad (U.P.)

**Assistant Professor S. N. Sen Post Graduate College, Kanpur (U.P.)

INTRODUCTION

We often overlook body measurement/dimension during selection of players or same how neglect the inevitability of the size and shape of the body or its parts while expecting a better attainment in sports performance.

A too many sports activities are facilitated by the structure of the athlete irrespective of abilities like skills, techniques and anticipation etc. and so on. Yet there are many sports activities which are not dependent directly upon the structure.

Explosive strength is the ability of the sportsman to overcome certain resistance by the muscles with high speed. Explosive strength is a complex conditional ability and is combination of strength and speed. A proportion in range of motion in relation to length of bones and joints is also an important factor in explosive strength.

Explosive strength plays a vital role in Basketball. Specially leg explosive strength for jumping during shot and block, and arm explosive strength during long passes, chest passes are very important. Both actions are required equally during playing.

The study has been aimed to identify the relationship between selected anthropometric variables and explosive strength, and to compare the status of same variables between District and sub-Division level Basketball female players.

METHODOLOGY

Forty Basketball players were randomly selected from four standard clubs or team belonging to three different Districts of Uttar Pradesh. Out of 40 subjects 20 had participated in inter District and remaining 20 had participated in Inter-sub Division Basketball competitions. The age of the subjects were 21 through 25 years.

Lower limb length was measured from the difference between sitting height and standing height, upper limb length was measured from a cromion process to the tip of the third finger.

Chest circumference was measured at nipple level and at the end of normal expiration. Thigh and calf circumferences were measured at the point of maximal circumference. Bicep

circumference were measured twice, greatest girth when arm is maximally flexed and greatest girth when arm is fully intended. The average was recorded as bicep circumference.

The arm explosive strength was measured by medicine ball (2 kg) throw test. The longest distance was recorded from three trials. The leg explosive strength was measured by vertical jump test. The best jump was recorded among three trials.

FINDINGS OF THE STUDY

In order to compare the anthropometry and explosive strength between the groups of District and sub-Division female players the significance of variance of group means were found at .01 level of confidence in lower limb length and .05 level of confidence in vertical jump and medicine ball throw. In case of other variables the difference were insignificant (See Table 1).

TABLE I

SIGNIFICANCE DIFFERENCE BETWEEN MEAN SCORES OF BASKETBALL FEMALE PLAYERS AT DISTRICT AND SUB-DIVISIONAL LEVEL

Variables	District level	Sub-divisional level	σ DM	t-ratio
lower limb length (cm)	85.34	81.73	1.30	2.78**
Upper limb length (cm)	77.50	76.21	1.14	1.13
Chest circumference (cm)	82.32	82.52	1.42	0.14
Thigh circumference (cm)	48.07	47.14	1.21	0.77
Calf circumference (cm)	32.87	32.20	0.6	1.02
Bicep circumference (cm)	25.91	25.15	0.87	0.87
Vertical jump (cm)	54.89	49.43	2.58	2.12*
Medicine ball throw (mt.)	11.28	09.91	0.67	2.04*

*significant at .05 level , ** significant at .01 level

t.05 (44) =2.02 , t.01 (44) =2.69 ,

The co-efficient of correlation between the variables of vertical jump and lower limb length was highly significant at .01 level of confidence and the correlation between vertical

jump and medicine ball throw was significant at 0.5 level of confidence. There was also a positive, but insignificant correlation found between the variables of vertical jump and thigh and calf circumference (vide table -2)

TABLE 2

COEFFICIENT OF CORRELATION OF VERTICAL JUMP WITH LOWER LIMB LENGTH, MEDICINE BALL THROW AND CIRCUMFERENCE OF THIGH AND CALF.

Variables	Lower limb length	Thigh circumference	Calf circumference	Medicine ball throw
Vertical jump	0.64**	0.21	0.17	.344*

* Significance at 0.05 level , ** Significance of .01 level
 $r_{.05(44)} = .291$, $r_{.05(44)} = .376$

The coefficient of correlation between the variables of medicine ball throw with upper limb length and chest circumference was highly positive and significant at .01 level of confidence. There was also positive correlation between the variables of medicine ball throw with bicep circumference but insignificant (See Table 3)

TABLE 3

COEFFICIENT OF CORRELATION OF MEDICINE BALL THROW WITH UPPER LIMB LENGTH, BICEP AND CHEST CIRCUMFERENCE

Variables	Upper limb length	Bicep Circumference	Chest Circumference
Medicine ball throw	0.71**	0.07	0.47**

** Significance of .01 level , $r_{.05(44)} = .376$

DISCUSSION

The District level female players are superior to sub-Divisional players in vertical jump. The relationship between lower limb length and vertical jump was significant ($r = .64$), a significant difference in lower limb length between District and sub-Division players was found (table-1). Hence it may be inferred that the District level players were better than sub-Divisional players in vertical jump due to greater limb length. The relationship between leg explosive strength and arm explosive has indicated their inter dependence.

The research work of Brown et al. (4) and Cluthetal (5) show in their study that vertical jump can be improved by developing muscular strength without sacrificing strength through training. In this study also the district players may be better in vertical jump due to greater training age.

The District level female players are superior in medicine ball throw to sub-Divisional female players. The relationship between appear limb length and medicine ball throw was significant ($r = .71$) and the mean difference of arm length (not significant) between district and sub-divisional female players are better in arm explosive strength due to greater arm length.

The relationship between chest circumference and medicine ball throw was highly significant ($r = .47$). The significant result of arm explosive strength may have been influenced by the pectoralis muscles. The pectoralis muscle commonly known as throwers muscles and the source of explosive strength.

As quoted from David Lamb (3) Increase the arm length or leg length would be of no use in improving power unless that strength somehow enable to movement to be completed rapidly, from the findings of this study no significant relation between girth and explosive strength was found. This re-establishes the fact quoted above of David Lamb.

CONCLUSIONS

1. The limb length is one of the determining factors in exerting explosive strength.
2. A continuous training may help in the improvement of explosive strength of arm and leg.

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PHYSICAL SELF -CONCEPT OF SPORTSPERSONS AND NON-SPORTSPERSONS

Dr. Rajkumar Sharma* & Devarshi Kumar Chaubey**

ABSTRACT

The purpose of the study was to investigate the physical self concept between male sportspersons and non-sportspersons. For this purpose, one hundred fourteen male sportspersons and non-sportspersons of Guru Ghasidas Central University, Bilaspur (CG) were selected as the subject of the study.. The Short Version of Physical Self-Description Questionnaire (PSDQ-S) of Marsh & et al. (1994) was used to measure the subject's physical self-concept. To find out the significance of difference between male sportspersons and non-non-sportspersons, Mean, SD and t-ratio were computed. Significance was set at .05 level. The results of the study revealed that significant difference was found between sportspersons and non-sportspersons of same sex in sports and health sub-scales of physical self-concept. But the similarity was found among both the groups of same sex in rest of the sub-scale of physical self concept. This suggests that there is a similarity between both the groups in nine sub-scales of physical self-concept.

Key Words: Physical, Self-Concept, Sex, sportspersons, Non-sportspersons

* Grade-I Gymnastic Coach, Sports Authority of India, State Coaching Centre, District Sports Complex, Seepat Road, Bilaspur (CG)

** M.Phil Student, Dr. C.V.Raman University, Kota, Bilaspur (CG)

INTRODUCTION

Physical Education by its very nature is concerned with the whole child who grows continuously, but not in evenly measured steady manner, in the real sense physical education is a process through which favourable adaptations and learning-organic, neuromuscular, intellectual, social, cultural, emotional and aesthetic result from and proceed through selected and fairly vigorous physical activities (Baley and David , 1976).

Self-concept is learned by an individual inference from his unique experiences. The individual perceptions of feeling of others towards him strongly influence his self image. In turn, self-concept may prove the most powerful motivation for specific behaviour (Singer , 1976).

Self-Concept is the totality of attitudes, judgments and values of an individuals relating to this, abilities and qualities, 'self-concept' embraces awareness of these variables and evaluation (Eysenek , Arnold and Maili, 1975).

The type of behaviour depends upon what one feel is capable of and appropriate to this need. Thus self concept and unique behaviour pattern of an individual resembles the relationship between egg and chick.

The self concept is a highly complex component of behaviour, composed of both cognitive and effective dimension and has at least four orientations : The real self, the perceived self, and the ideas self as perceived by others.

It is clear that greater progress in understanding human can be made possible only through the study of an individual as a whole. It is the concept of self which personifies the individual as a whole and express his way of thinking, feeling and behaving.

The importance of self-concept as a major determinant of behavior has long been recognized throughout the history of educational and social psychology. Since the original work of James (1890), one of the first who highlighted its importance, researchers have published a significant number of studies regarding the nature of self-concept and its relation to other constructs. Self-concept has also been considered as an important factor influencing the motivation level of an individual. Thus, the status of a person's self-concept or perception of ability either enhances or diminishes the person's desire to participate or to continue

participating in an activity. White (1959) proposed that self-concept is associated with a basic “mastery” of competence motive that impels the individual to engage in mastery attempts.

Goldenberg et al (2000) discussed the importance of values of the body in relation to the effect they can have on self-esteem, stating that “one’s physical body is a potential source of self-esteem and that not living up to societal standards regarding the body can have negative consequences for the self”.

Marsh et al. (1997)) has conducted self-concept research with elite athletes compared with non-athletes, finding that during adolescence, elite athletes and boys have systematically higher physical self-concepts than non-athletes and girls; however there is scope for more investigation into regular young people and their physical self-concepts.

. Rowland (1999) found that physical activity declines during adolescence, especially among girls. Gender differences in body image among adolescents include boys being more likely to exercise to enhance their physical appearance while girls exercise to lose weight.

Chung (2003) revealed that the mean vector scores of PE major in the following scales: Coordination, endurance, flexibility, activity, sports competence, strength, and global physical were significantly higher than that of Non-PE major students. The results may reflect that males and PE major students, who usually spend more time on physical activity and sports training tend to have better fitness and skill oriented self-concept than their counterparts.

Thornton and Kato (2012) indicated that kinesiology majors had significant higher self-perceptions of their sports competence, physical condition, physical self-worth, and physical strength. Researchers believe that identifying groups of people with low self-perceptions of their physical abilities and implementing strategies to improve these self-perceptions to increase physical activity levels may help in decreasing weight related health issues.

The purpose of the study was to investigate the physical self concept between male sportspersons and non-sportspersons. It was also hypothesized that there would be significant differences between male sportspersons and non-sportspersons in their physical self concept.

METHODOLOGY

Selection of Subjects

A sample consisted of one hundred fourteen male sportspersons (N = 65) and non-sportspersons (N=49) of Guru Ghasidas Central University, Bilaspur (CG) were selected for the purpose of study.

Instrumentation

The Short Version of Physical Self-Description Questionnaire (PSDQ-S) of Marsh & et al. (1994) was used to measure the subject's physical self-concept. The questionnaire consisted of 47 items which under 11 scales : action, appearance, body fat, coordination endurance, flexibility, health, sports competence, strength, global physical self concept and global esteem.

With the permission of the Head of Institutions, the researcher was made contact with the subjects in the teaching class room personally and data was collected.

Statistical Analysis

To find out the significance of difference between male sportspersons and non-sportspersons of Guru Ghasidas Central University, Bilaspur (CG), descriptive statistics and t-ratio were computed. The level of significance was set at .05 level.

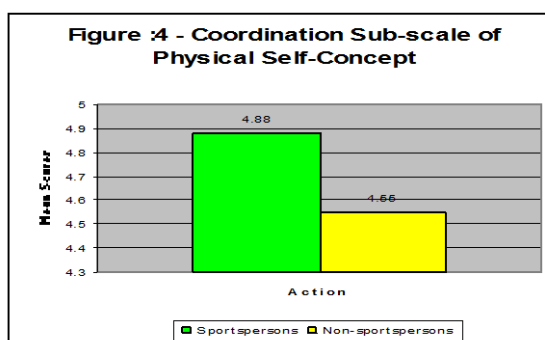
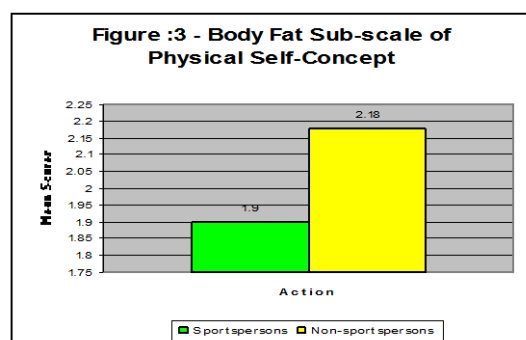
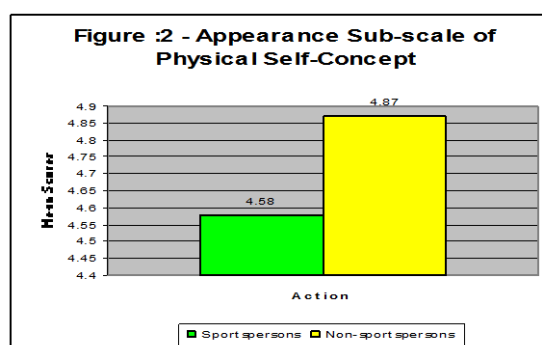
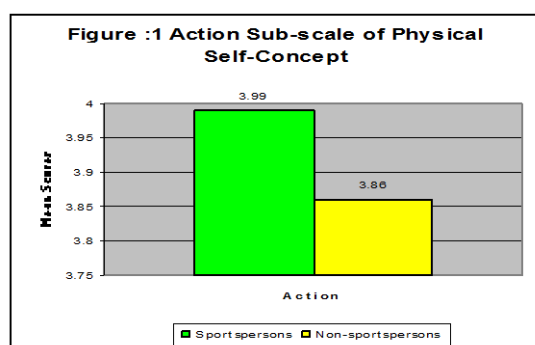
RESULTS AND DISCUSSION

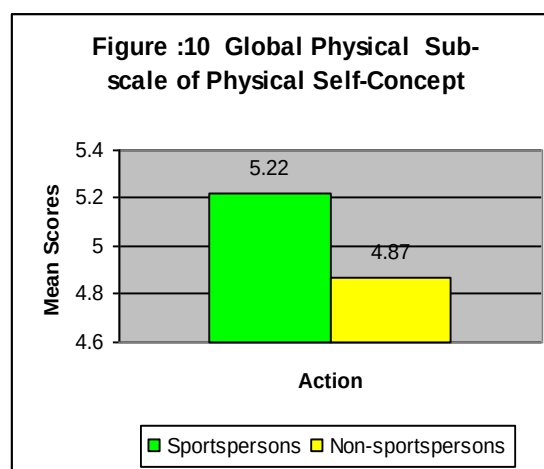
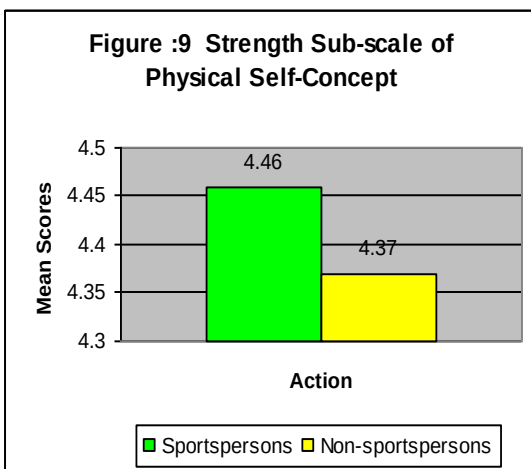
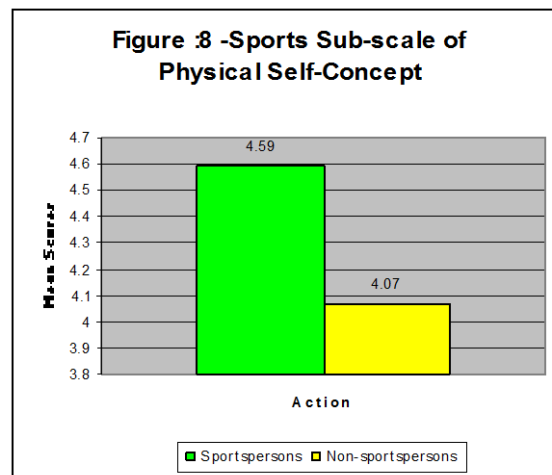
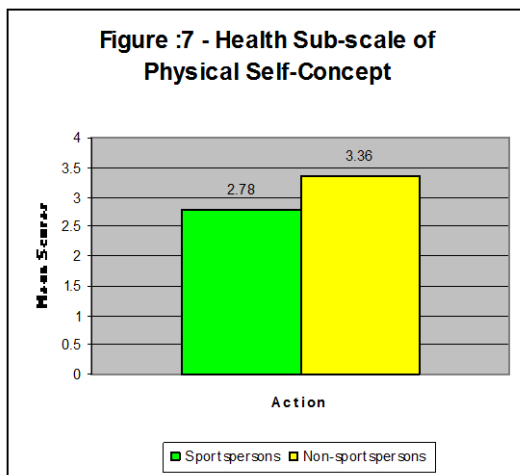
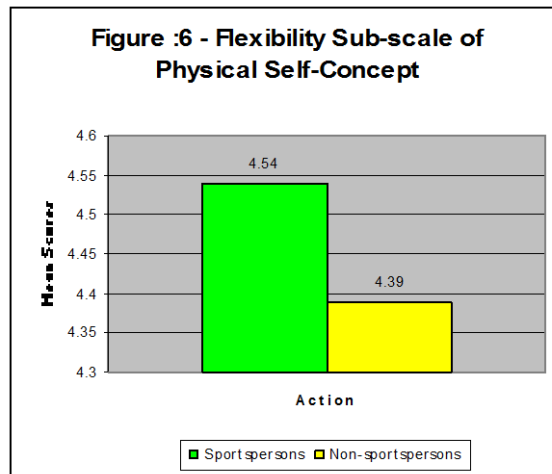
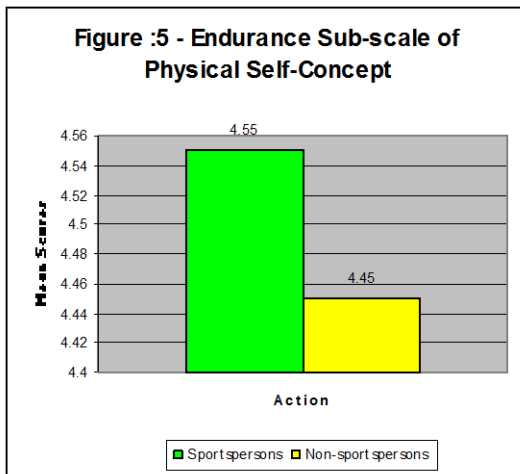
To compare the male sportspersons and non-sportspersons on various sub-scales of physical self concept: means, standard deviations and t-ratios were computed. The level of significance was set at .05 level and data pertaining to this have been presented in Table 1 to 2.

TABLE 1
 DESCRIPTIVE STATISTICS OF MALE SPORTSPERSONS AND NON-
 SPORTSPERSONS ON VARIOUS SUB-SCALES OF
 PHYSICAL SELF-CONCEPT

Sub-scales	Sportspersons (N=65) M $\pm$ SD	Non-sportspersons (N=49) M $\pm$ SD
Action	3.99 $\pm$ 1.05	3.86 $\pm$ 1.04
Appearance	4.58 $\pm$ 1.39	4.87 $\pm$ 1.16
Body Fat	1.90 $\pm$ 1.13	2.18 $\pm$ 1.35
Coordination	4.88 $\pm$ 1.05	4.55 $\pm$ 1.09
Endurance	4.55 $\pm$ 1.29	4.45 $\pm$ 1.17
Flexibility	4.54 $\pm$ 0.95	4.39 $\pm$ 1.05
Health	2.78 $\pm$ 0.94	3.36 $\pm$ 1.06
Sports	4.59 $\pm$ 1.05	4.07 $\pm$ 1.36
Strength	4.46 $\pm$ 1.19	4.37 $\pm$ 1.14
Global Physical Self-Concept	5.22 $\pm$ 0.38	4.87 $\pm$ 1.19
Global Esteem	4.09 $\pm$ 0.91	4.15 $\pm$ 1.15

The mean scores of male sportspersons and non-sportspersons on various sub-scales of physical self-concept have been depicted in figures 1 to 11.





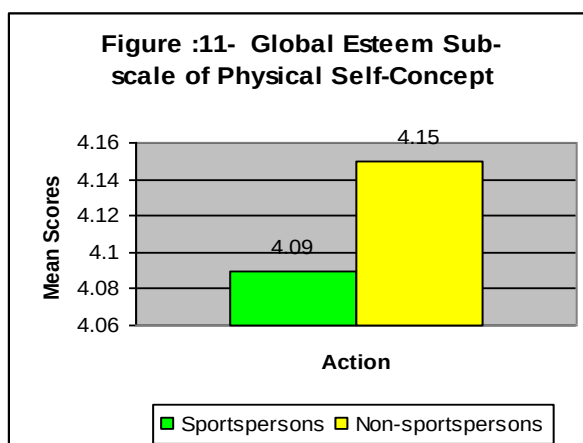


TABLE 2

SIGNIFICANCE OF DIFFERENCE BETWEEN MALE SPORTSPERSONS AND NON-SPORTSPERSONS ON VARIOUS SUB-SCALES OF PHYSICAL SELF-CONCEPT

Sub-Scales of PSDQ	Sex	Mean	MD	σ DM.	t-ratio
Action	P.E . Student	3.99	0.13	0.19	0.68
	Non-P.E. Student	3.86			
Appearance	P.E Student	4.58	0.29	0.25	1.19
	Non-P.E. Student	4.87			
Body Fat	P.E Student	1.90	0.28	0.23	1.21
	Non-P.E. Student	2.18			
Coordination	P.E Student	4.88	0.33	0.20	1.65
	Non-P.E. Student	4.55			
Endurance	P.E Student	4.55	0.10	0.23	0.40
	Non-P.E. Student	4.45			
Flexibility	P.E Student	4.54	0.15	0.19	0.76
	Non-P.E. Student	4.39			
Health	P.E Student	2.78	0.58	0.19	3.04*
	Non-P.E. Student	3.36			
Sports	P.E Student	4.59	0.52	0.23	2.30*
	Non-P.E. Student	4.07			
Strength	P.E Student	4.46	0.09	0.22	0.43
	Non-P.E. Student	4.37			
Global Physical Self-concept	P.E Student	5.22	0.35	0.19	1.82
	Non-P.E. Student	4.87			
Global Esteem	P.E Student	4.09	0.06	0.19	0.31
	Non-P.E. Student	4.15			

*Significant at .05 level $t_{.05}(112) = 1.99$

It is evident from Table 4, that statistically significant difference was found between male sportspersons and non-sportspersons in health and sports sub-scales of physical self-

concept, as the obtained t-values of 3.04 and 2.30 respectively were higher than the required value of $t_{0.05(112)}=1.99$. This implies that both the groups are dissimilar in two subscales with respect to physical self-concept. But the significant difference was not observed between the both groups in action, appearance, body fat, coordination, endurance flexibility, strength, global physical self-concept and global esteem sub-scales of physical self-concept, as the obtained t-values of 0.68, 1.19, 1.21, 1.65, 0.40, 0.76, 0.43, 1.82 and 0.31 respectively were less than the required value to be significant.

DISCUSSION

The research findings clearly indicated the significant differences between male sportspersons and non-sportspersons. This suggests that there is a similarity between both the groups in nine sub-scales of physical self-concept. Which may be due to the belongingness of various academic field and environmental condition of the faculties. It was also hypothesized that there would be significant differences between male sportspersons and non-sportspersons in their physical self concept is partially supported

CONCLUSION

Dissimilarity was found between sportspersons and non-sportspersons of same sex in sports and health sub-scales of physical self-concept. But the similarity was found among both the groups of same sex in rest of the sub-scale of physical self concept.

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CONCENTRATION IN CRICKET : A KEY OF SUCCESS

Jai Shankar Yadav* & Sunil Kumar Pandey**

ABSTRACT

Concentration plays a vital role to execute the fundamental skills during the play the game of Cricket. Concentration is arguably the most important psychological factor involved in cricket. Without good concentration, no amount of technical skill or physical fitness is going to help you to consistently score runs, take wickets and hold catches. Concentration is a term which is commonly used in cricket. When a batsman is dismissed or a fielder drops a catch, how often do they admit "I lost concentration"?

* Ph.D Scholar, Dr. C. V. Raman University, Kota Road, Bilaspur (CG)

** Physical Education Teacher Meharishi Vidhya Mandir, Bilaspur (CG)

INTRODUCTION

Every cricket activity (bowling, batting, wicket-keeping and fielding) requires a different type of focus. Before looking at ways to improve concentration or focusing skills it is important to explain some of the important factors of concentration.

DURATION OF CONCENTRATION

Cricket is generally played over an extended period of time, with many short breaks (between deliveries) and long breaks (lunch, tea, overnight). You can expect to spend a little more than half of the game actually on the field. At anytime during the game there will be a wicket-keeper, two batsmen, a bowler and nine fielders. How each of these players needs to concentrate, mentioned below:

Batsman : Batsman needs to focus when they are receiving one delivery bowled by the bowler. It means focusing from about the time that the bowler starts his run up, until the ball is dead. This means a batsman can relax while at the bowler's end, between overs, between deliveries, when a wicket falls, and when the ball is dead.

Wicket-keeper : Wicket-keepers should be ready to receive each and every delivery bowled by the bowler. He must concentrate fully on every ball, not relaxing until the ball is dead. Wicket-keepers can relax between deliveries and between overs, so that he can make a level of good concentration throughout the innings.

Bowlers : Bowlers need to plan their deliveries and then focus on delivering their ball. After delivering the ball they have to field the ball rolling or catch in the air. Bowlers can relax their focus between the overs, between deliveries while fielding and when not bowling.

Fielders : Fielders have more time to relax their concentration. Their role is to back up and support the bowler. They can relax between deliveries and between overs. The intensity of their concentration depends on their fielding position. Fielders close to the striker batsman require most intense concentration.

INTENSITY OF CONCENTRATION

Cricket, like archery, baseball and golf, requires players to focus intensely and then to relax. There is no need to concentrate all the time. No player can concentrate for whole day. This is just not true because the limit of focused human concentration is somewhere between forty five to sixty minutes. This means that you must learn and practice the art of 'switching off attention during short breaks. Intense concentration required for cricket needs to be based on the mental calmness.

DIRECTION OF CONCENTRATION

In cricket there are many things to concentrate on and each activity requires a different type of concentration. When you are concentrating well you will not actually be aware that you are concentrating. For example- Batsmen in good form effortlessly shift their concentration from their game plan to the bowler, the ball, the fielders, their partners and so on. Bowlers shift their concentration from their own strategies, to the ball, to the batsman, to the target, to their body position or to the feeling of delivering the ball. So, In each activity you can actually shift concentration backward and forward from external cues such as ball to internal cues such as strategies and body position.

Some of the questions that follow may help you to evaluate your own concentration skills in the key areas of the game, are given in Table 1

TABLE 1
QUESTIONS TO BE EVALUATED BY BATEMAN, BOWLER AND
WICKET-KEEPER

S.NO.	Team Member	Questions to be evaluated
1.	Batsman	1. How good are you at focusing all your attention on to the ball? 2. How good are you at focusing all your attention on to the ball? 3. What things around you sometimes distract you from the ball? 4. Do fielder's comments distract you? 5. Do your own thoughts sometimes distract you? 6. Do you know where the fielders are when you are batting? 7. Can you quickly and accurately judge whether a run is possible
2.	Bowler	1. How good are you at focusing on a target? 2. Are you aware of your body position while bowling? 3. Do you prefer to concentrate on the target spot or on the rhythm? 4. Do you think about plans while going back to your run up? 5. Can you put these plans into action immediately? 6. What things around you distract you from bowling? 7. Do negative thoughts ever distract you?
3.	Wicket-Keeper	1. Can you concentrate on motivating the fielders and then switch back to the ball? 2. Are you usually aware of your positioning? 3. Are there any times during an innings when you seem to lose intensity of focusing? 4. How good are you at reacting quickly to the chance of a sharp single or a quick run out?

Concentration can be focused outwards to general things like ground and field placing, or onto specific things like the ball or the target point on the pitch. It can also be

directed inwards of things like strategies and body position. 9'M-ne players are easily disturbed by comments or sledging from other players or by the movements of the people near the sight screen. Such players are probably better at knowing what is going on around them, rather than being able to narrow your focus or concentration. This is often called field focus. Cricket, however requires less field focus and a greater ability for narrowing your concentration.

LOSING CONCENTRATION

Analysis of your game reveals that you can generally focus your concentration when it is really needed but sometimes unusual, tight or even uninteresting situations can cause you to lose your focus. In cricket there are many things that are under your control, and the most important is your reaction to the events that occur during a game. Players should not lose their concentration when they drop a catch or on a bad delivery. Good players remain in control after any bad performance. They can refocus their concentration after setbacks such as ducking into a short ball or being hit for a six: There are so many situations which are not under your control. Some of these are mentioned Table 2.

TABLE 2

CRITICAL SITUATIONS DURING BATTING, BOWLING AND WICKET-KEEPING

S.NO.	Fundamental Skills	Situations which can not be controlled
1.	Batting	1. Crowd noise, 2. The pitch, 3. The ball that was just bowled, 4. Partner's way of batting, and 5. Partner's running between the wickets
2.	Bowling	1. Batsman playing and missing outer edge, 2. Batsman playing unorthodox shots, 3. Batsman slogging, 4. Umpire's decision, 5. Condition of the ball The ball you have just bowled, 6. Fielders dropping catches, and 7. Pitch is not favourable
3.	Wicket-Keeping	1. Ground conditions, 2. Bowling standard, 3. Stumping chance you just missed, and 4. Hard throws from fielders

IMPROVING CONCENTRATION ON SKILLS BY SETTING GOALS AND TARGETS

Setting of goals and targets for each match is very important. A useful approach to goal setting in matches is to select result and action goals each time that you play.

Result goals, as the name suggests, are the goals based on the end results such as taking three wickets, taking all possible catches or scoring at least 50.

Action goals are strategies or actions which will help you to achieve your result goals.

They include playing straight, bowling to the predetermined plan and staying relaxed. An example of result and action goals for an opening batsman : Result goal- To score 100 runs
Action goals-

1. Give first one hour to the bowlers
2. Stay loose, calm and relaxed
3. Play according to the merit of the ball
4. Choose the deliveries for hitting boundaries
5. Plan your innings session-wise

This type of goal setting approach helps in two ways; first, it creates the motivation (to score 100) and secondly it directs the focus of concentration onto things which are going to help achieve the goal.

DRILLS TO IMPROVE YOUR CONCENTRATION ON SKILLS

One of the best ways to improve your focusing skills is through a range of practice drills. There can be many practice drills to improve you focusing skills but some of them are given in Table 3

TABLE 3

PRACTICE DRILLS FOR IMPROVEMENT OF CONCENTRATION FOR SKILLS

1. One on one catching	2. Bowling machine	3. Target practice
4. Leave it alone	5. Fielding-Run-Back	6. Pressure catching to the fielders and the wicket- keepers
7. Pressure fielding drills	8. Stump catching to the wicket-keepers	9. Wall catching to the wicket- keepers

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The discussion part should contain the interpretation of the results with possible comparisons with other relevant studies. The discussion must be rigorous and correspond to the data and the hypothesis. New-hypothesis, if any, may be stated. Recommendations, if any, question of practical application, consistent with the limitations of the study, may be included.

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