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NJPESS

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COMPARISON OF BMI AMONG THE STUDENTS OF DIFFERENT SECTORS OF SCHOOL IN NORTH TRIPURA

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Abstract:
Purpose of the study is to determine whether all the group (government, semi-government & private) schools are equal or not in relation to BMI. 30 Boys from different schools in North Tripura namely; DNV school, North Point school, & Fulbari HS school were acted as the subject for the study. To analyze the study a statistical technique i.e, ANOVA was used. The level of significance was fixed at 0.05 level of confidence. As the calculated F-value=3.02 is lower than the Tabulated F-value=3.35. So there is no significance difference in BMI among the three groups. However, North Point School is more close to the normal weight as its mean value is 20.94. The result of the study is may be due to the different capability social status, food, habits and lifestyle of the school children.
Keyword: Body Mass Index.

Introduction:

Worldwide disease profiles are transforming at a rapid pace catching the attention of medical professional and policy makers. The past three decades have witnessed the emergence of over –nutrition as a problem in school age children in develops countries and in affluent urban segments in developing countries. In fact obesity is classified as a 'disease of affluence' in 19th and 20th century, but today threatens to become a disease with epidemic proportion for the 21st century. Worldwide childhood obesity has more than doubled in children and quadruped in adolescents in the past 30 years. In 2012, more than one third of children and adolescents were overweight or obese globally (Ogden et al., 2014).

According to centre for disease control and prevention (CDC)"over weight and obesity results for and energy imbalance which involves eating too many calories and not getting enough physical activity". The term over weight and obese refers to a person with an excess of body weight.

It is difficult to develop one simple index for the measurement of overweight /obesity in children and adolescents because their bodies undergo a number of physiological changes as they grow. Obesity can be measured in different ways. The most common methods is measuring the weight and relating it to other parameters. Body Mass Index (BMI) is a simple index to classify over weight and obesity in adult population.

BMI is most frequently used measure for assessing weather adult or children are obese, overweight, under weight or healthy weight. It is a statistical measure of weight of a person scaled according to height. It is also defined as weight adjusted for height squared.

$$B.M.I = \frac{\text{Weight (Kg)}}{\text{Height (m) 2}}$$

For adults, BMI cut offs point used to define over weight and obesity have been based on fixed BMI values relating to health risk with BMI = 25 -30 kg /m2 classified as overweight and BMI >30kg /m2 classified as obese (WHO, 1995).

Methodology

30 students (boys) from different sectors of schools namely; DNV School, North Point School, & Fulbari HS School have been selected as the subject of the study. The health examination of the subject has been taken and which found medically fit to undergo different types of data collection. The classes of the subject will range from ix to x .Prior to collection of the data a meeting of all the selected subject was held and tester explained in details regarding the requirement of the study and testing.

To analyze the study a statistical technique i.e ANOVA was used. The level of significance was fixed at 0.05 level of confidence.

Findings pertaining to BMI among the students of different sectors of schools in North Tripura namely; DNV School, North Point school, & Fulbari HS school which were subjected to analysis of variance which have been presented in the following table:

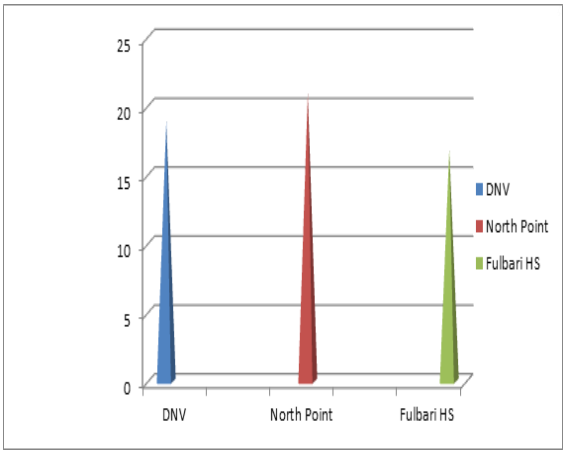
Table- 1
Analysis Of Variance Of Bmi Among The Students Of Different Sectors Of Schools

Source of Variations	d.f	SS	MSS	F-value
Treatment	r-1=2	84.41	42.205	3.02
Error	N-r= 27	377.19	13.97	

***Sig. at .05 levels**
Tab. 05 (2, 27) = 3.35

The above table- 1 revealed that the calculated F (3.02) is lower than tabulated F (3.55). Hence, there were no significant difference among all the three groups namely; DNV school, North Point school, & Fulbari HS school. It is concluded that all the sectors of schools are having more or less similar kind of BMI. However, North Point School is more close to the normal weight as its mean value is 20.94.

Figure – I
Bar Diagram Showing The Mean Values Different Schools On Bmi



Conclusion

We may conclude that there is no such significant difference; as far as BMI is concern. However, Private sector school (Norht Point school)has the mean value (20.94) which is more close to the normal weight as compare to other different sectors of school. That is why we can say that Government sector schools (Fulbari HS school) is having worst body size (BMI) in relation to other school children. The result of the study is may be due to the different capability social status, food, habits and lifestyle of the school children.

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Comparison of Rhythmic Ability among Different Playing Positions in Handball

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Abstract:
The objective of the study was to compare Rhythmic Ability among different playing positions of Handball. Total seventy male handball players (10 from each playing position i.e. right winger, left winger, right shooter, left shooter, centre player, pivot player and goalkeeper were selected from different Universities of India. All the subjects' age was ranged from 16 to 24 years. In this study, Rhythmic Ability was selected as independent variable and different playing positions of handball were selected as dependent variables. Rhythmic Ability was measured by using "sprint at given rhythm test" test suggested by Peter Hirtz and the score was recorded in seconds. To compare Rhythmic Ability among different playing positions of handball, one way analysis of variance was used at .05 level of significance. To compare paired means, LSD Post-Hoc test was used. Results shows that significant difference was found among the different playing positions of handball players in relation to Rhythmic Ability since obtained F- value 3.06 ($p<.01$) was found significant at .05 level of significance.

Keywords: Rhythmic Ability, Handball, Playing Positions of Handball.

Introduction

Handball is one of the world's oldest sports. Homer made a mention of a game like handball in Odyssey. Today, played over 143 nations and by over 15 million participants the world over, handball is an athletic, high-scoring, spectacular, dynamic and exciting sport that requires teamwork, speed, athleticism, patience and finesse (Kamlesh, M. L., 2016). Coordinative abilities are generalized and stabilized patterns of movement regulation process & motor control. It assists the sportsperson to perform a group of movements effectively & with a better quality (Singh, H., 1991). Rhythmic is ability to perceive the rhythm given externally and to reproduce it in motor action. This ability also denotes the ability to regenerate a rhythm that exists related to any memory, in motor action. Rhythm in the field of sports plays integral role. Which occurs due to constant practice generally athletes of track & field, gymnasts, swimmers; skaters possess high sense of rhythm.Asuccessful athlete should have stamina, quickness, agility, explosive strength & coordination of high quality along with good rhythm & sense of timing (Kamlesh, M. L., 2011). Rhythmic ability enables the sportsperson to execute any movement in rhythmic & synchronized patterns. It is dependent on acoustic, optic & kinesthetic sense organs. (Uppal, A. K., 2001)

Objective of the study

The objective of the study was to compare Rhythmic Ability among different playing positions of Handball.

Subjects of the study

Total seventy male handball players (10 from each playing position i.e. right winger, left winger, right shooter, left shooter, centre player, pivot player and goalkeeper were selected from different Universities of India. All the subjects' age was ranged from 16 to 24 years.

Variables of the study

In this study, Rhythmic Ability was selected as independent variable and different playing positions of handball were selected as dependent variables.

Measurement of Rhythmic Ability

Rhythmic Ability was measured by using "sprint at given rhythm test" test suggests by Peter Hirtz and the score was recorded in seconds.

Statistical Analysis

To compare Rhythmic Ability among different playing positions of handball, one way analysis of variance was used at .05 level of significance. To compare paired means, LSD Post-Hoc test was used.

Findings

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Table- 1
Descriptive Statistics Of Handball Players In Different Playing Positions

Playing Positions	Mean	Standard Deviation	Standard Error	95% Confidence Interval for Mean	Minimum	Maximum	
				Lower Bound	Upper Bound		
Right Winger	1.63	.487	.154	1.28	1.98	.89	2.12
Left Winger	1.32	.275	.087	1.12	1.51	.88	1.75
Right Shooter	1.10	.039	.012	1.07	1.13	1.05	1.18
Left Shooter	1.35	.232	.073	1.18	1.51	.97	1.65
Centre Player	1.25	.186	.059	1.12	1.38	1.05	1.66
Pivot Player	1.36	.338	.107	1.12	1.60	.89	1.78
Goalkeeper	1.25	.274	.086	1.05	1.44	.88	1.88
Total	1.32	.316	.037	1.25	1.40	.88	2.12

Table- 1 represents descriptive statistics of handball players in different playing positions. The mean, standard deviation, standard error, 95% confidence interval for mean (minimum and maximum), minimum and maximum are given in the above table.

Figure: 1
Histogram And Normal Probability Plot Of Rhythmic Ability Of Handball Players In Different Playing Positions

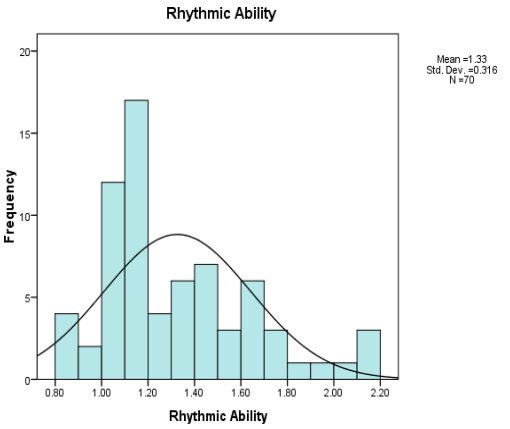


Figure- 1 shows the histogram and normal probability plot of Rhythmic Ability of handball players in different playing positions. Figure represents that normality is present regarding the residuals with mean near to one and standard deviation zero to one.

Table- 2
Levene statistics related to Rhythmic Ability of different playing positions of handball

Test of Homogeneity of Variances			
Rhythmic Ability			
Levene Statistic	df1	df2	Significance level
8.478	6	63	.000

Table- 2 shows that levene statistics was exist significant at .05 level. Since this value was found significant, Brown-Forsythe and Welch tests were applied.

Table- 3
Analysis of Variance for the Comparison of Rhythmic Ability among Different Playing Positions of Handball

	Sum of Squares	df	Mean Square	F	Significance Level
Between Groups	1.55	6	.26	3.06	.01
Within Groups	5.34	63	.08		
Total	6.90	69			

Table-3 represents that significant difference was found among the different playing positions of handball players in relation to Rhythmic Ability since obtained F- value 3.06 ($p<.01$) was found significant at .05 level of significance. But it cannot be said that significant difference was found among different playing positions of handball on the basis of te results of ANOVA since levene statistic was found significant (Assumption of Homogeneity has been broken), so Brown-Forsythe and Welch tests were applied.

Table- 4
Results of Brown-Forsythe and Welch tests related to Rhythmic Ability of different playing positions of handball

Robust Tests of Equality of Means				
Tests	Statistics	df-1	df-2	Significance level
Welch	5.82	6	24.90	.001
Brown-Forsythe	3.06	6	37.27	.015

Table- 4 represents that the results of Brown-Forsythe and Welch tests. Both the tests (Brown-Forsythe and Welch tests) were used, since levene statistic was found significant at .05 level. This shows that the assumption of homogeneity of variance was broken. Since value of Welch (5.82) and Brown-Forsythe (3.06) were found significant differences among the different playing positions of handball was found in relation to Rhythmic Ability.

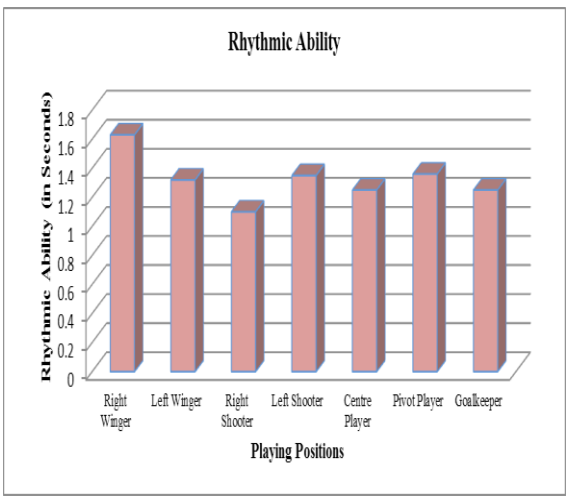
Table- 5
LSD Post-Hoc Test for the Comparison of Paired Means of Different Playing Positions in Rhythmic Ability

(I) Groups	(J) Groups	Mean Difference (I-J)	Standard Error	Significance level	95% Confidence Interval	
					Lower Bound	Upper Bound
Right Winger	Left Winger	.31	.13	.019	.05	.57
	Right Shooter	.52	.13	.000	.26	.78
	Left Shooter	.28	.13	.035	.02	.54
	Centre Player	.37	.13	.005	.11	.63
	Pivot Player	.27	.13	.042	.01	.53
	Goalkeeper	.38	.13	.005	.12	.64
Left Winger	Right Shooter	.21	.13	.105	-.04	.47
	Left Shooter	-.03	.13	.801	-.29	.22
	Centre Player	.06	.13	.619	-.19	.32
	Pivot Player	-.04	.13	.742	-.30	.21
	Goalkeeper	.06	.13	.609	-.19	.32
Right Shooter	Left Shooter	-.24	.13	.062	-.50	.01
	Centre Player	-.14	.13	.257	-.40	.11
	Pivot Player	-.25	.13	.053	-.51	.00
	Goalkeeper	-.14	.13	.263	-.40	.11
Left Shooter	Centre Player	.09	.13	.455	-.16	.35
	Pivot Player	-.01	.13	.939	-.27	.25
	Goalkeeper	.10	.13	.445	-.16	.36
Centre Player	Pivot Player	-.10	.13	.410	-.36	.15
	Goalkeeper	.00	.13	.988	-.25	.26
Pivot Player	Goalkeeper	.11	.13	.402	-.15	.37
*. The mean difference is significant at the 0.05 level.						

Table-5 shows significant differences between the Rhythmic Ability of right winger and left winger (MD=.31, p=.01); right winger and right shooter (MD=.52, p=.00); right winger and left shooter (MD=.28, p=.03); right winger and centre player (MD=.37, p=.00); right winger and pivot player (MD=.27, p=.04) & right

winger and goalkeeper (MD=.38, p=.00).
On the other hand insignificant difference exist, between the paired means of left winger and right shooter (MD=.21, p=.10); left winger and left shooter (MD=-.03, p=.80); left winger and centre player (MD=.06, p=.61); left winger and pivot player (MD=-.04, p=.74); left winger and goalkeeper (MD=.06, p=.60); right shooter and left shooter (MS=-.24, p=.06); right shooter and centre player (MD=-.14, p=.25); right shooter and pivot player (MD=-.25, p=.053); right shooter and goalkeeper (MD=-.14, p=.26); left shooter and centre player (MD=.09, p=.45); left shooter and pivot player (MD=-.01, p=.93); left shooter and goalkeeper (MD=.10, p=.44); centre player and pivot player (MD=-.10, p=.41); centre player and goalkeeper (MD=.00, p=.98) & pivot player and goalkeeper (MD=.11, p=.40).

Figure: 2
Comparison of Rhythmic Ability among different playing positions of handball



Conclusions

Significant difference was found among different playing positions of Handball in relation to Rhythmic Ability.

Discussion

Singh, A. K. (2015) conducted a study to compare selected coordinative abilities of volleyball players, who participated in north-zone intervarsity volleyball tournaments. The results showed that insignificant difference was found among north-zone teams (Faizabad, Hisar, Jhansi and Aligarh) on their selected coordinative abilities (orientation ability, differentiation ability, reaction ability, balance ability and rhythmic ability). Das, S. (2013) conducted a study to compare rhythmic ability of sub-junior, junior and senior female soccer players. Significant difference was found among the different levels of female soccer players in case of rhythmic ability. Singh, G., & Mishra, P. K. (2012) conducted a study to compare selected coordinative abilities of school level Taekwondo players in different weight categories. In reaction ability, differentiation ability, balance ability and rhythm ability, significant difference were found in different weight categories of school level Taekwondo players. Kapri, B. C., & Choudhary, R. (2010) conducted a study to compare coordinative abilities of different playing positions of Indian football players. Significant difference was found among different playing positions in relation to reaction ability, orientation ability, differentiation ability, balance ability, and rhythm ability respectively. Verma, K. (2014) conducted a study to compare rhythmic ability of handball players at outstanding level of performance among different levels (district, state and national levels). Insignificant difference was found in rhythmic ability among three different levels (district, state and national levels) of handball players. Patel, R. K., & Choudhary, R. (2016) reported a study to compare Balance Ability pertaining to seven different playing positions of Handball. Significant difference was found among different playing positions of Handball in relation to Balance Ability. Patel, R. K., & Choudhary, R. (2015) conducted a study to compare Reaction Ability among seven different

playing positions of handball game. Significant difference was found among seven different playing positions of handball in relation to Reaction Ability. Choudhary, R., Patel, R. K., Chaudhary, S. D., & Singh, M. K. (2018) conducted a study to compare coordinative abilities between handball & kabaddi players. Significant difference was found among Orientation ability, Reaction ability and Balance ability. Insignificant difference was found between Rhythmic ability and Differentiation ability in handball and kabaddi players. On the basis of above studies, it may be concluded that there is a significant impact of different zones, levels of play and weight categories on different coordinative abilities. Patel, R. K., & Choudhary, R. (2016) conducted a study to estimate Right Winger performance in Handball on the basis of selected Co-ordinative abilities. Significant relationship was found between Right Winger performance and selected Co-ordinative abilities and one model was established to estimate Right Winger performance on the basis of selected Co-ordinative abilities. Established model was: Right Wingers performance = 5.066 + 1.454 X Differentiation Ability. Patel, R. K., Choudhary, R., Singh, M. K., & Dalal, P. (2017) conducted a study to estimate Left Shooter Performance in Handball on the basis of selected Coordinative abilities. Significant relationship was found between Left Shooter and selected Coordinative abilities and one model was to estimate Left Shooter performance on the basis of Coordinative abilities. Established model was: Left Shooters performance = 189.033 - 1.772 × Reaction Ability. Patel, R. K., Choudhary, R., Singh, M. K., & Dalal, P. (2017) conducted a study to estimate Goalkeeper performance in handball on the basis of Coordinative abilities. Significant relationship was found between Goalkeeper performance and Coordinative abilities and two models were established to estimate Goalkeeper performance on the basis of Coordinative abilities. Established models were: Model I: Goalkeepers Performance = 71.839 – 6.979 X Orientation Ability, Model-II Goalkeepers Performance = 46.058 – 4.679 X Orientation Ability + 0.816 X differentiation ability. Patel, R. K., Choudhary, R., Singh, M. K., & Dalal, P. (2016) conducted a study to estimate Right Shooter performance on the basis of Coordinative abilities in handball. Significant relationship was found between Right Shooter performance and Coordinative abilities and one model was established to estimate Right Shooter performance on the basis of Coordinative abilities. Established model was: Right Shooter performance = 303.981 – 28.502 X Balance ability. Above mentioned studies established different models to estimate Handball performance at four different playing positions. This justify that different types of coordinative abilities are required at different playing position.

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The Role of Social Influence in Purchasing Sports Apparel

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Abstract:
The purpose of this study was to derive the relationship between social influence and purchase intention of consumers of sports apparel. Researcher adopted a survey method approach for collection of data. Questionnaire was used as an instrument for collection of data. Data were analyzed using chi-square to test the hypotheses at 0.05 alpha level of significance using SPSS version 16. Results derived from this study shows that social influence and purchase intention of consumers of sports apparel are dependent on each other.

Keywords: Sports Apparel, Social Influence, Consumer behaviour

1. Introduction

Sport is a widespread form of recreation and always plays an important role in the social life of many people across the countries. Sport has grown remarkably over the past few years and is now becoming an important part of economy. Playing sport, attending live sport events and purchasing sporting apparels are the main parts of sport economy. Besides these, there are millions of people who watch sport events on television every day and also attend major sporting events and hence create a huge market for sport companies.

Demand for sports apparel is driven by an increase in sports participation among the general population and the growing acceptance of sports apparel in daily wear. Besides athletes who are buying sports apparel to enhance their performance in sporting activities, other consumers are also buying sports apparel for outside sports use. Sports apparel companies have responded by spending large amounts of advertising dollars to influence consumer choice. This is led by global brands including Nike and Adidas. A large number of new entrants, for example Li-Ning from China, are also spending advertising dollars to gain brand awareness and market share.

Sports apparel is selected on the basis of various product attributes like fit, aesthetics, design and the material used. Other than product attributes, consumer choice is also influenced by other situational and demographic factor. In some cases, the choice of a particular brand, type or colour of sports apparel can serve as a mean to create an identity for the wearer and an indication of membership in a group. Consequently, sports apparel companies have sought to communicate both product attributes and the desirability of their brands in social

settings in their advertisements.

2. Literature Review

Consumers buying decisions gets affected by the social influence as humans learn to rely upon others' perception and judgment the more uncertain a person is about the correctness of his own judgment, the more likely he is susceptible to social influences in making his judgment. (Burnkrant and Cousineau 1975, Deutsch and Gerard 1955).

Social influence can be classified into informational and normative social influence. Informational social influence is defined as an influence to accept information obtained from others as an evidence about reality while making any purchasing decision (Deutsch and Gerard 1955). On the other hand, normative social influence is defined as an influence to conform to the positive expectations of others (Deutsch and Gerard 1955). Normative social influence can be further categorised into value expressive and utilitarian influences. Value expressive reflects the consumer's desire to enhance self-image by associating themselves with some reference group. In contrast, utilitarian influence is reflected through consumers' attempts to comply with the expectations of others to achieve rewards or avoid punishments (Bearden et al. 1989, Park and Lessig 1977, Burnkrant and Cousineau 1975).

Brand names play an important role while making purchase decision in sports apparel. They not only reflect the choice of the individual consumer but more importantly, in a cohesive group, it visibly indicates membership and shared beliefs of the group (Dickson and Pollack 2000).

The above discussion showed that social influence has an effect on consumer behaviour. In particular, as sports apparel is considered conspicuous products, social influence in the form of normative influence is likely to play a role in the purchase of sports-related goods. Given that sports apparel is also purchased for enhancing performance, it is expected that informational influence will also affect the consumer choice especially among those who are highly involved in sports.

3.Research Methodology

3.1 Purpose of the Study

The study intends to bring out the fact that whether social intention and purchase intention of consumers towards sports apparel are independent to each other or not.

3.2 Research Objective

To identify whether social influence and purchase intention of consumers towards sports apparel are independent to each other.

3.3 Hypothesis

It was hypothesized that social influence and purchase intention towards sports apparel are independent to each other.

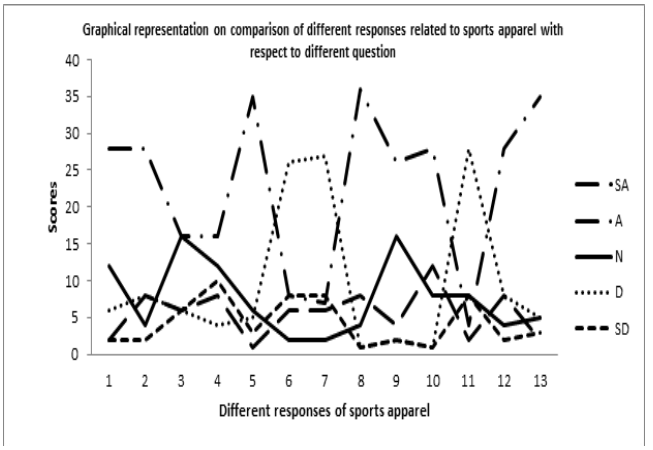
3.4 Research Design

In this study the researcher used the descriptive research design. Fifty questionnaires were distributed to college going students. Convenience sampling method was adopted in this study. Data were collected from both primary and secondary sources. In primary method data were collected by using questionnaire making use of the Likert five point scale technique. Secondary data were collected from the internet, newspapers, journals and books.

4.Data Analysis and Interpretation

Table-1
Comparison Of Different Responses Related To Sports Apparel With Respect To Different Questions

S.No	Questions	Responses	CSV	p									
		SA	A	N	D	SD							
		OV	EV	OV	EV	OV	EV	OV	EV	OV	EV		
1	I would search information about various brands and models from an association of professionals or an independent group of experts	2	10	28	10	12	10	6	10	2	10	4	0
2	I seek information from those who work in the sports industry on how Brand A's performance compares to Brand B's.	8	10	28	10	4	10	8	10	2	10	4.32	0.01
3	The brand of sports apparel that I select is influenced by whether the brand is used by professional athletes.	6	10	16	10	16	10	6	10	6	10	12	0.01
4	My choice of sports apparel is influenced by other consumers' word of mouth or some evaluation reports from an independent testing agency	8	10	16	10	12	10	4	10	10	10	8	0.09
5	My friends' evaluation and preference will influence my choice.	1	10	35	10	6	10	5	10	3	10	4	0
6	Other people's recommendation may influence my final decision.	6	10	8	10	2	10	26	10	8	10	32.2	0
7	The preferences of family members can influence my choice of sports apparel.	6	10	7	10	2	10	27	10	8	10	32.2	0
8	To satisfy the expectations of classmates or fellow work associates, my decision to purchase sports apparel. is influenced by their preferences	8	10	36	10	4	10	1	10	1	10	4	0
9	I tend to choose those brands or models that will enhance my image in the others' eyes.	4	10	26	10	16	10	2	10	2	10	4	0
10	I feel that those who purchase or use the sports apparel. of a particular brand or model possess characteristics which I would like to have.	12	10	28	10	8	10	1	10	1	10	4	0
11	I feel that it would be nice to act like the type of person whom advertisements show wearing the sports apparel.of a particular brand or model.	2	10	4	10	8	10	28	10	8	10	4	0
12	I think that the people who purchase the sports apparel. of a particular brand or model are sometimes admired or respected by others.	8	10	28	10	4	10	8	10	2	10	43.2	0.01
13	Using sports apparel.of a particular brand or model helps me show others who I am, or who would like to be (such as a fit and active person, etc).	2	10	35	10	5	10	5	10	3	10	4	0



OV=Observed Value, EV= Expected Value, CSV= Chi Square Value, p=Significance level

Table-1 shows that in case of first question, the observed and expected frequencies are 2 & 10; 28 & 10; 12 & 10; 6 & 10; 2 & 10 respectively for five selected responses. In case of second it is 8 & 10; 28 & 10; 4 & 10; 8 & 10; 2 & 10 respectively. In third question the observed and expected values are found to be 6 & 10; 16 & 10; 16 & 10; 6 & 10; 6 & 10 respectively. In fourth question it is found to be 8 & 10; 16 & 10; 12 & 10; 4 & 10; 10 & 10 respectively. In case of fifth question, the observed and expected frequencies are 1 & 10; 35 & 10; 6 & 10; 5 & 10; 3&10 respectively. In case of sixth, observed and expected frequencies are 6 & 10; 8& 10; 2 & 10; 26 & 10; 8 & 10; In seventh question the observed and expected frequencies are 6 & 10;7& 10; 2 & 10; 27 & 10; 8 & 10 respectively. In case of eighth question the observed and expected frequencies are found to be 6 & 10;7 & 10;2 & 10; 27 & 10;8 & 10 respectively. In ninth question the the observed and expected frequencies are 4 & 10; 26 & 10;16 & 10;2 & 10;2 & 10 respectively. In tenth question the observed and expected frequencies are 12 & 10;28 & 10;8 & 10;1 & 10;1 & 10 repectively. In eleventh question the observed and expected frequencies are 2 & 10;4 & 10;8 & 10;28 & 10;8& 10 respectively. In case of twelfth question the observed and expected frequencies are 8 & 10; 28 & 10; 4 & 10; 8 & 10; 2 & 10 . In case of thirteenth question the observed and expected frequencies are 2 & 10; 35 & 10; 5 & 10; 5 & 10; 3 & 10 respectively for Strongly Agree (SA),Agree (A),Neutral (N),Disagree (D),Strongly Disagree (SD).

Obtained values of Chi-Square are 4, 43.2, 12, 8, 4, 32.2, 32.2, 4, 4, 4, 4, 43.2, 4 and are found to be significant at 0.05 level for question number 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13 as the level of significance in these questions are significant ($p < 0.05$, $p = 0.00$). On this basis, it may be concluded that significant difference was found among the responses of respondents in relation to twelve questions.

Therefore our formulated hypothesis is found to be incorrect in this case and we can say that social influence and purchase intention of consumers of sports apparel are dependent on each other while in question number 4, formulated hypothesis is found to be correct as the chi-square value is 8.00 and it is significant at. 05 level of significance ($p>0.05$, $p=0.09$).

Conclusion

In this study, it was found that the consumer's social class plays a significant positive role in the behaviour of consumers of sports products. It was the most important factor affecting sporting consumer behaviour.

However, as the respondents in this study are

limited to a convenience sample of relatively young adults, it is possible that individuals with different demographics may behave differently. Hence, this remains a limitation of this study and warrants future study involving a more representative sample.

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A PILOT STUDY ON EFFECT OF LAUGHTER THERAPY ON RESTING HEART RATE AMONG THE RESIDENTS OF OLD AGE HOME IN NORTH TRIPURA

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Abstract:
OBJECTIVE: Laughter is the best medicine; to justify the statement the investigator aims to determine the effects of laughter therapy on resting heart rate among the residents of old age home. METHODS: Twenty residents of old age home (Prantik) from Dharmanagar, North Tripura were randomly selected as subjects for the study. Before giving the treatment of laughter therapy of two months the investigator conducted a pre test for the subjects further they were evaluated after six weeks of due training on resting heart rate and by applying student 't' test at .05 level of significance the investigator comes to the result. RESULTS: After the analysis of data, it obtained that the calculated t value (0.55) is greater than the required significant tabulated t value (2.262). So, there was no significant difference of mean values between pre test(94) and post test(92) in relation to resting heart rate. Hence there was no effect of laughter therapy on residents of old age home as far as resting heart rate is concern. CONCLUSION: As observed from the results, it can be concluded that Laughter Therapy is not a potential tool that significantly affects the resting heart rate of old age people of North Tripura. The study shall be useful for future researches too since it has primary quantitative data to support its objectives and conclusion.

Keywords: Laughter Therapy, Resting Heart Rate, Old Age home.

Introduction

Old age is inevitable. Nobody can stop the aging process of the human body. But, it is possible to keep the mind agile and active to a great extent. Laughter therapy is a twist on an ancient practice. Not only it increases happiness, but it also strengthens the immune system. Laughter is one of the body's safety valves, a counter balance to Tension. When tension released, the elevated levels of the body's Stress hormones drop back to normal, thus allowing our Immune Systems to function more effectively. Sigmund Freud summarized in his theory that laughter therapy release tension and "psychic energy" it is coping mechanism for when one is upset, angry or sad. 15 minutes of laugh is equals to the benefit of two hour sleep, 15 minutes laugh adds two days life span. It stimulates the brain, respiratory, nervous, hormonal and muscular system. Many researches evidenced that laugh increase the secretion of serotonin in brain which is essential for the uplift of mood. Laughter provides good exercise to organs and enhances blood supply.

Methodology

This study is designed to determine the effects of two months laughter therapy on resting heart rate among the residents of old age home. The subjects of the study were 20 senior citizens of old age home (Prantik) from Dharmanagar, North Tripura. The age level of the subjects ranged between 60yrs to 80yrs..

Programme for Laughter Therapy

Week	Warming up	Duration of laughter exercise	Duration of Recovery	Nos. of Repetition
1-2 weeks	10 MINS	45 secs	05 mins	3
3-4 weeks	10 MINS	1minute	05 mins	3
5-6 weeks	10 MINS	11/2minute	05 mins	4
7-8weeks	10 MINS	11/2minute	05 mins	4

The researcher took data on resting heart rate before and after giving two months of laughter therapy as a pre and post test respectively with the help of qualified experts of Dharmanagar. The score recorded in beats/mins. The collected data were statistically analyzed by paired't-test. The level of significance was fixed at 0.05 level of confidence.

Findings pertaining to Resting Heart Rate among the people of oldagehome (Prantik), Dharmanagar, North Tripra which were subjected to paired't-test which have been presented in the following table:

Table-I

Computation Of Pretest, Posttest Mean, Standard Deviation Calculated T Value And Tabulated T Value In Relation To Resting Heart Rate

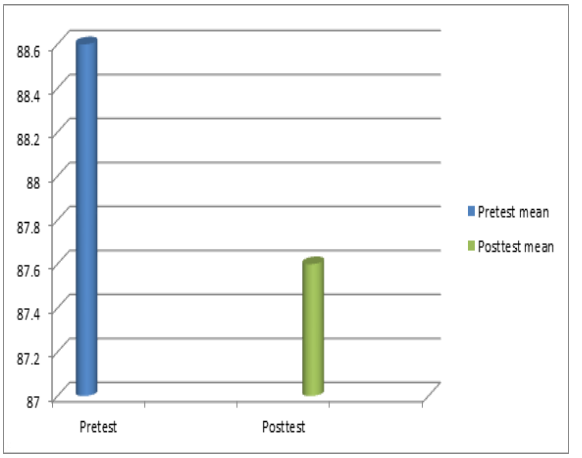
Pretest mean	Posttest Mean	Standard Deviation	Calculated t value	Tabulated t value
88.6	87.6	1.13	0.55	2.262

***Sig. at .05 levels**
Tab. 05 (9) = 2.262

The above table- 1 revealed that the calculated t (0.55) is lower than tabulated t (2.262). Hence, there was no significant effect of laughter therapy on resting heart rate among the people of oldagehome (Prantik), Dharmanagar, North Tripra. However, posttest mean (87.6) shows slight decrease as compare to pretest mean (88.6) as far as resting heart rate is concerned.

Figure – I

Bar Diagram Showing The Mean Values In Pretest And Posttest In Relation To Resting Heart Rate



Conclusion

We may conclude that there was no significant effect of laughter therapy on resting heart rate among the people of oldagehome (Prantik), Dharmanagar, North Tripra. However, posttest mean (87.6) shows slight decrease as compare to pretest mean (88.6) as far as resting heart rate is concerned. The result of the study is may be due to the different social engagements, food habits, small sample size and lifestyle of the old age people.

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BALANCE AND SHOOTING PERFORMANCE OF INTERVARSITY MALE FIELD HOCKEY PLAYERS

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Abstract:
The study was aimed at analysing the potential relationship between balance and shooting performance of male intervarsity field hockey players. 60 intervarsity players participated as subjects in the study. Henry Friedel Field Hockey test was used to assess shooting accuracy and dynamic balance was assessed by Y Balance Test. The balance variables of the players were found normal when compared with peer group from other parts of the country. There was no significant difference between the left and right sides on balance. Right Posteromedial Balance shown significant positive relationship with shooting performance and Left Anterior balance had a significant negative relationship with shooting performance. There was significant positive relationships among the posterior balance variables. The study concluded that the biomechanical basis of the game demands greater balance for best hockey performance. By improving balance of the players the overall game performance also can be improved.

Keywords: Dynamic balance, shooting performance, Right Posteromedial, Right Anterior

1. Introduction

Field hockey is a highly dynamic moderate intensity intermittent sport with an increased possibility of body collision (Mitchell, Haskell, Snell, & Van Camp, 2005). Balance and agility are crucial factors that affect field hockey performance (Anders and Myers, 2008). Executing the movements in semi-crouched position is a unique demand of the game (Reilly et al, 1990). This particular demand along with unattended balancing strength training causes asymmetry and muscle imbalance among players (Kawalek & Garsztka, 2013). Balance is a product of proper muscle synergies which constitutes the basis of proper skill executions (Ricotti, 2011).

Balance is closely related to footwork which is fundamental to all hockey skills. Proper body balance is controlled by head, foot and hands with stick. Maintaining body low (low centre of gravity) and stick head down are important determinants of shooting accuracy. Shoulder pointed to the target, front foot in line with the ball and flexed knee with weight equally distributed on both feet are biomechanical principles that affect quality of a hit (Anders and Myers, 2008). Hence keeping in mind the importance of balance in hockey performance the researcher makes an attempt to study the level of balance and relationship of balance to shooting accuracy of intervarsity male hockey players.

2. Methodology

Objectives:

1. To assess the dynamic balance among intervarsity male hockey players.
2. To compare balance of left and right legs.
3. To examine the relationship between balance and shooting performance of intervarsity level male field hockey players.
4. To analyse the relationship among balance of different segments.

Design of the Study:

To achieve the objectives of the study correlational research design was used.

Selection of Subjects:

For the study 60 intervarsity level male field hockey players from different colleges in Kerala state of India were selected as subjects. The characteristics of the subjects are given in Table 1. They were oriented about the purpose and procedure of the study.

Table 1

Demographic Characteristics of Intervarsity Male Hockey Players

Age	19±1.77 years
Height	172±5.43 cm
Weight	67±5.6 kg

Selection of Variables:

Keeping in mind the biomechanical contribution of balance to shooting skill, dynamic balance (measured in cm) was selected as the independent variable and shooting performance (measured in points) as dependent variable. Sub-variables of dynamic balance were Right Anterior (RA), Left Anterior (LA), Right Posteromedial (RPM), Left Posteromedial (LPM), Right Posterolateral (RPL) and Left Posterolateral (LPL).

Selection of Tests:

Dynamic balance of the players was assessed by Y Balance Test and shooting performance was assessed by Henry Friedel Field Hockey Test. Y balance test assess the dynamic balance of both limbs on three directions: anterior, posterior-medial and posterior-lateral. The test assess the ability to take the moveable pad away without losing contact while maintaining balance. Higher value indicates higher level of balance.

Statistical Techniques Used:

Descriptive statistics like mean, standard deviation, minimum score and maximum score were computed to understand the nature of spread of data. Independent t test was calculated to compare balance of right and left legs. To understand the relationship between balance variables and performance Pearson's Product Moment Correlation was calculated. Level of significance was chosen at 0.05 level. Data analysis was done with IBM SPSS 21.0 version.

3. Results and Discussions:

Table 2

Mean, Standard Deviation, Minimum and Maximum Scores for the Selected Variables

Variable	Mean	SD	Minimum	Maximum
Shooting	1.83	1.29	0.00	5.50
Right Anterior	85.60	7.75	69.00	100.00
Left Anterior	84.73	9.54	65.00	103.00
Right Posteromedial	100.26	8.11	85.00	123.00
Left Posteromedial	99.73	8.39	86.00	118.00
Right Posterolateral	100.93	9.14	84.00	125.00
Left Posterolateral	101.03	8.78	84.00	122.00

Table 2 describes the mean, standard deviation, minimum and maximum values of each variable studied. The maximum point that can be scored on shooting accuracy being 9 the subjects scored 1.89 which indicates a poor shooting accuracy. Balance score were better for posteromedial and posterolateral than anterior balance.

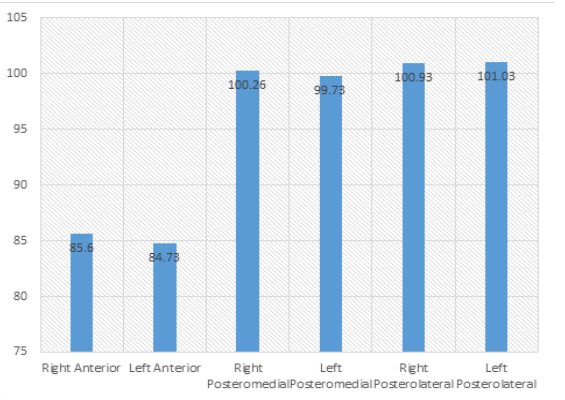

Figure 1 Mean Values of Balance Variables

Table 3 illustrates that the calculated t values for Anterior, Posteromedial and Posterolateral Balance were less than the critical values and thus all the p values were above 0.05. Hence it confirms that the difference in balance between left and right legs were statistically insignificant.

Table 3
Comparison of Balance of Left and Right Legs

Variable	Side	Mean	SD	MD	SEM	t Value	p Value
Anterior Balance	Right	85.60	7.75	0.86	2.24	0.38	0.70
	Left	84.73	9.54				
Posteromedial Balance	Right	100.26	8.11	0.53	2.13	0.25	0.80
	Left	99.73	8.39				
Posterolateral Balance	Right	100.93	9.14	0.01	2.31	0.04	0.96
	Left	101.03	8.78				

Table 4
Correlation Matrix for Shooting Performance and Balance Variables

		Shooting	RA	LA	RPM	LPM	RPL	LPL
Shooting	Pearson Correlation	1	-.295	-.403*	.425*	.298	.154	.019
	Sig. (two tailed)		.114	.027	.019	.109	.418	.922
RA	Pearson Correlation		1	.745**	.001	.254	.208	.235
	Sig. (two tailed)			.001	.997	.175	.271	.212
LA	Pearson Correlation			1	.007	.267	.155	.186
	Sig. (two tailed)				.972	.154	.415	.325
RPM	Pearson Correlation				1	.789**	.466**	.487**
	Sig. (two tailed)					.001	.009	.006
LPM	Pearson Correlation					1	.711**	.745**
	Sig. (two tailed)						.001	.001
RPL	Pearson Correlation						1	.738**
	Sig. (two tailed)							.001
LPL	Pearson Correlation							1
	Sig. (two tailed)							
*Significant at 0.05 Level ** Significant at 0.01 Level								

Table 4 elucidates that both anterior balance are negatively correlated to shooting performance whereas posterior balance are positively correlated. Whereas only two of the six balance variables show significant correlation to shooting accuracy. Right Posteromedial balance shows a significant positive correlation to shooting performance (p 0.019) which means an increase in Right Posteromedial Balance will result in an increase in shooting accuracy. Left Anterior Balance shows a significant negative correlation to shooting performance (p 0.027) which indicates the chance for a tamper in shooting accuracy by increased Left Anterior Balance. Right and Left Anterior Balance were significantly positively correlated (p 0.01). All the Posterior Balance variables shown significant positive correlation among them.

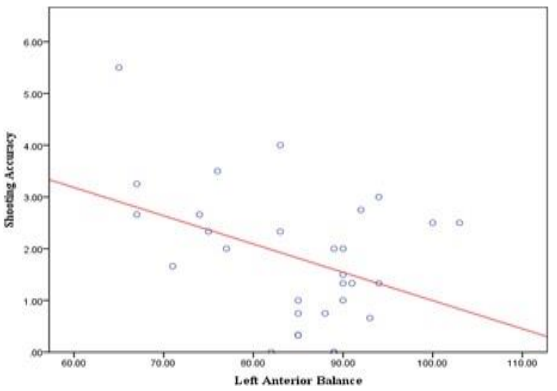

Figure 2
Relationship between Shooting Accuracy and Left Anterior Balance

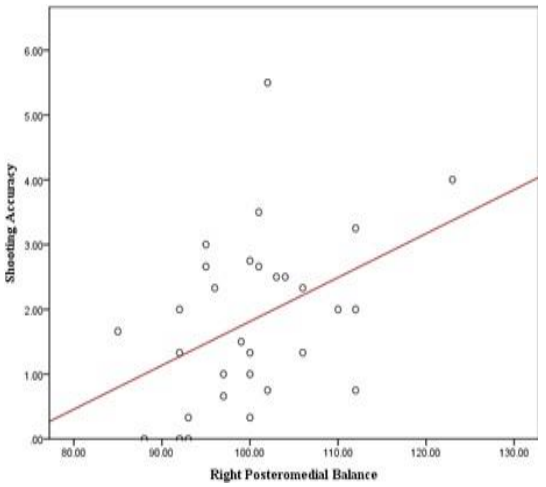

Figure 3
Relationship between Shooting Accuracy and Right Posteromedial Balance

In a study conducted by Bhat and Jamal (2013) similar mean balance values were found for male college field hockey players (Anterior balance = 84.97, Posteromedial balance = 108.07 and posterolateral balance = 103.64). Hence it may be assumed that the subjects had normal level of dynamic balance. But the level of shooting accuracy they possessed was below average. While executing the hit right leg is kept in front beside the ball, left leg at rear, left shoulder facing the target and anterior plane of the body facing 900 to the target. The position assumed to test Right Posteromedial balance is similar to the shooting action. That may be a reason for the significant positive correlation to shooting accuracy. Biomechanically Left Anterior Balance will enhance shooting performance but that of the subjects shows negative correlation to shooting performance. Also the subjects possess a low level of overall shooting accuracy. So it is recommended to have an in depth study to understand the other factors that affect shooting accuracy of hockey players. Synergist and agonist-antagonist muscle balance may be the reason for positive interrelationship between the posterior balance variables.

4. Conclusions

After Analysis of data and discussion of the findings the following conclusions are drawn:

1. The intervarsity male field hockey players possessed normal level of balance.
2. There was no significant difference between balance of left and right legs.
3. There was a significant positive relationship between Right Posteromedial Balance and shooting accuracy.
4. There was a significant negative relationship between Left Anterior Balance and shooting accuracy.
5. There was significant positive inter-variable relationship among posterior balance variables.

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Optimizing Employee Productivity Through Yoga Practices: Analyzing Effectiveness

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Abstract:
The purpose of this study was to analyze the impact of yoga practices and gender on the employee productivity. Yoga practitioners were considered as test group and non-yoga practitioners were considered as control group. A 12 item questionnaire was generated for employee productivity from the source of Buuri (2015). Questionnaire was administered to 100 respondents including yoga practitioners and non-practitioners, including male and female from private service sectors. Two-way ANOVA was used to analyze the data and two way factorial design was the research design used in the study. The result revealed the positive joint impact of yoga practices (group) on employee productivity. This analysis provided one approach organizations might use to deal with individual and structure health through the introduction of practicing yoga at work.

Keywords: Yoga Practices, Employee Productivity, Public-Private Organization, Gender,

1. Introduction

Concern for mental and physical well being of the employees is one of the key aspects of the modern management in organizations. The concept of yoga is old for more than 5000 years old. "Exercise, breathing and meditation are the three main Pillars of Yoga (American Yoga Association, 2009). Yoga helps in connecting a person to own self and rally round connecting mind and body. Yoga promotes the awareness physical and mental well being of the person. Yoga encourages the self-discipline and facilitates self-learning through aligning body and mind (Patañjali & Feuerstein, 1989). Yoga when practiced individually spread discipline and when practiced in group leads to organizational effectiveness.

The Indian Philosophy consists of six foundations and yoga is one of them. Patanjali's Yoga Sutras draws around systematic way of conducting as well as controlling the life peacefully (Becker, 2000). Yoga is an art of life management and a universal suggests that for self realization. Health advantages and improvement of human intelligence measure indivisible byproducts of yoga practices which will be achieved by each professional. Aurobindo (1999) defines yoga as "a sensible discipline incorporating a large style of practices whose goal is that the development of a state of mental and physical health, well-being, inner harmony and ultimately a union of the human individual with the universal and transcendent existence". Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and religious dimensions of the individual (Iyengar, 1976). In

modern situation, a region of oriental knowledge, yoga has been wide illustrious even in western countries and a considerable range of individuals are active it for various functions like condition, flexibility, stress management, psychological well being, emotional rectification, sensible habits cultivation and unwellness management as adjunct medical care.

The significance of this study is to grasp additional totally however ideas regarding the physical and psychological state of members (employees) contribute to the overall health of organizations (small businesses, medium and enormous organizations) through the communal follow of mind–body exercise. If the findings of this study area unit persuasive, yoga might be one among the foremost effective means that of promoting a healthy and growth-oriented organization.

2. Literature Review

2.1 Yoga

Yoga is one amongst the six foundations of Indian philosophy and has been used for millennia to check, explain, and skill the complexities of the mind and human existence (Feuerstein, 1998). Patanjali, associate ancient Yoga sage, defines Yoga as a method wont to still the fluctuations of the mind to achieve the central reality of actuality self (Iyengar, 1966). These pointers, that embody moral and ethical standards of living additionally to bodily property and respiration exercises, square measure primarily wont to foster non secular growth and evolve one's consciousness.

Although, there is no standardization in the field of yoga, but it is originated in Indus Valley Civilization in 3900 B.C. with the substantiation of Bhandrasan. The Bhagwat Geeta describes that to become sums in ups and down. It is originated from 'Yuj' word of Sanskrit which means combined. In the ancient Indian Philosophy, Maharishi Patanjali explained that cessation of the thought waves of mind is yoga. In twenty first century the company world is related to the foremost tension giving parts like competition, deadlines, market conditions and in particular the will to achieve high on the company ladder. Yoga is final try for the fusion of embodied consciousness with supreme consciousness that later on return from the observe of social adjustment (Yam), ethical observance (Niyam), postures (Asana), respiration mechanics (Pranayama), senses withdrawal (Prathyara), concentration (Dharana), meditation (Dhyan) and superconsciousness (Samadhi). Regular observe of yoga is meant to empower company health, happiness and harmony and therefore wealth too.

The Yoga is derived from Sankhya Philosophy which connotes true knowledge. This philosophy emphasized that yoga is a practice. This study examined whether the yoga practices impacts the employee productivity. Moreover the study also analyzed the impact of gender on employee productivity. Abundant evidences and studies supported the yoga impacts overall mental and physical health of the employees which in turns supports to boost. This study offers a promising approach to promote and reap the all possible benefits of practicing yoga in the workplace. The study augmented to look at the impact of gender and lastly the joint impact of both yoga practices and gender was scrutinized on employee productivity.

2.2 Employee Productivity

Udo-Aka (1983) outlined productivity as a live of overall production potency, effectiveness and performance of individual organization. Akerele (1991. 50) contends that productivity is that the "measure of however well a nation's resources are utilized for accomplishing a collection of result reaching the best level of performance with the smallest amount expenditure of resources, as well as human resources". The worker productivity cares with the ultimate and specific outputs desired from the worker considering the resources spent on the worker (Baron & Armstrong, 2007). The worker's productivity involves measurement of the time spent within the production of

the specified outputs from associate degree employee. The worker Productivity involves conjointly the mensuration of the worker connected prices incurred by the organization within the production of desired output (Esu & Inyang, 2009). Productivity has usually been confused efficiently. Potency is mostly seen because the quantitative relation of the time required to perform a task to some planned time. Employee productivity is one in all the leading factors for organizational aggressiveness and this has partially semiconductor diode to a rise in analysis on however it will be improved (Bankert, Coberley, Pope & Wells, 2015). The individual factors affecting the employee productivity are working conditions, Employees competencies, Nature of job, social security, Training of employees, Quality of leadership, working hours, Liberty at work to perform, Liberty at work to perform, Job security, Salary packages, Motivation of employees, Career development opportunities, Working hours, and Welfare.

2.3 Employee Productivity and Yoga Practices

Doorgapersad(2017) posits that workplace spirituality like yoga promotes employee wellness and has a positive blow on work productivity. Doorgapersad and Surujlal (2014) conducted a study to look at relationship between the implementation of gender-based yoga and improvement of employees' wellness in order to improve the productivity. The results revealed that yoga can play an influential role in employee wellness. Moreover, it was found that yoga promotes the emotional well-being and it diminishes the health related illness. Hope (2013) reported that yoga practices reduce stress which is one of the leading causes of absenteeism in the workplace. Adhiya, Nagendra and Mahadevan in (2010) found that yoga way of life have positive impact on organizational performance.

3. Research Methodology

3.1 Objectives

1. To compare the employee productivity between yoga and non-yoga practitioners.
2. To compare the employee productivity between male and female employees.
3. To analyze the joint impact (interaction) of yoga practices and gender on employee productivity of public and private organizations.

3.2 Research Hypothesis

1. There shall be significant difference in employee productivity between yoga and non-yoga practitioners.
2. There shall be significant difference in employee productivity between yoga and non-yoga practitioners.
3. There shall be significant joint impact of yoga practices and gender on employee productivity.

Table 3.1
Is Indicating The Sample Distribution Manner Which Is Also Prescribed In Research Procedure.

3.1 Sample Size Distribution and ANOVA Table

Gender	Group	
	Yoga Practitioners (Test Group)	Non-Practitioners (Control Group)
Male	25	25
Female	25	25

Table 3.2 depicts the research variables including dependent and independent variables. Yoga group and gender are the independent variables and employee productivity is the dependent variable.

3.2 Research Variables

Independent Variables	Dependent Variable	Source
Gender (M and F)	Employee productivity	Source- Buuri (2015)
Group (between yoga and non-yoga practitioners)		

Table 3.3 is showing the research instrument of employee productivity drawn from the research work of Buuri (2015).

3.3 Research Instrument

S. No.	Items
1	Quality of work improves over time
2	Employees are eager to learn on ways of making themselves more productive
3	Employees are able to identify and give top attention to top priorities
4	Employees are eager to learn on ways of making themselves more productive
5	Overtime we have increased customer satisfaction with the quality service delivered
6	Employees provide suggestions to enhance their service delivery
7	Employees have a sense of what to do and when to do
8	Employees have steadily increased their personal output
9	Overtime we have been able to reduce service cycle time
10	Employees are able to deliver within the set deadlines
11	Employees are able to deliver under less than perfect conditions
12	Employees are able to generate more than an hours' worth of productivity of each hour

3.5 Research Procedure

The two way factorial design was adopted for the purpose of the study. The convenient sampling design was sampling technique. Data was collected both primarily and through secondary data collection techniques. A structured questionnaire was formulated and hence, data was collected from 100 respondents. The respondents include test group and control group of Yoga practitioners. 50 respondents were practicing yoga and 50 respondents were non-practitioners of yoga. Within the same group 50 respondents were male and 50 respondents were female. Within a test group (practitioners) there were 25 male and 25 female respondents. Within a control (non-practitioners) there were 25 male and 25 female respondents. The data was collected from employees of private sector IT firms. The data was analyzed through Two-Way ANOVA through SPSS version 21, to evaluate the difference between Columns (comparing employee productivity between yoga and non-yoga practitioners), difference between rows (comparing employee productivity between genders)

4. Data Analysis

Two-Way ANOVA was used to analyze the joint impact of gender and group (yoga practitioners and non-practitioners) on employee productivity. Employee productivity between yoga-practitioners and non-yoga practitioners were also determined. Apart from this the employee productivity between genders (male and female) was also discovered. It is evidently shown that the comparison was made in three ways. First the rows are compared. Then the columns are evaluated and finally both rows and columns are compared. The Statistical Package for the Social Sciences (SPSS) (Version 23) was used to analysis the data.

Through table 4.1 the brief description of descriptive statistics can be seen. Sample size can be seen as 50 each for male and female. Similarly, a sample of 50 was taken each for yoga and non-yoga practitioners.

Descriptive Statistics

Table 4.1 Between Subject Factors			
		Value Label	N
GENDER	1	MALE	50
	2	FEMALE	50
GROUP	1	YOGA PRACT	50
	2	NON YOGA PRACT	50

There are certain assumptions of ANOVA which needs to be fulfilled before applying the two-way ANOVA. These are as following-

1. There should be normal distribution of data.
2. There should be homogeneity of variance.

Table 4.1 is revealing the descriptive statistics. The values of Skewness and Kurtosis is shown is shown below. The value of skewness is supposed to lie between -1 to 1. The revealed value of Skewness (-0.24)in table 4.1 lies within the accepted range. Similarly the value of Kutrtosis should be lie between -2 to 2 for normal univariate distribution (George and Mallery, 2010). The values in the table indicating the Kurtosis value lies in the acceptable range.

Table 4.1
Descriptive Statistics

	Range	Minimum	Maximum	Mean	SEM	S t d . Deviation	Variance	Skewness	SES	Kurtosis	SEK
E M P L O Y E E PRODUCTIVITY	29	36	65	50.56	0.63981	6.3981	40.936	-0.28	0.24	-0.386	0.48

The following graph shows the descriptive statistics and graphical representation of normality. Figure 4.1 representing the graph of data which are yoga practitioners and male. Figure 4.2 representing the graph of data which are yoga practitioners and female. Figure 4.3 representing the graph of data which are non-yoga practitioners and male. Figure 4.4 representing the graph of data which are non-yoga practitioners and female. In the following figures curve shapes appears to be normal. The box plot is situated below the curve representating the minimum value, 1' st quartile, 2' nd quartile, median and maximum values. The median located between the box plot is showing the normality of the all data set.

Figure 4.1

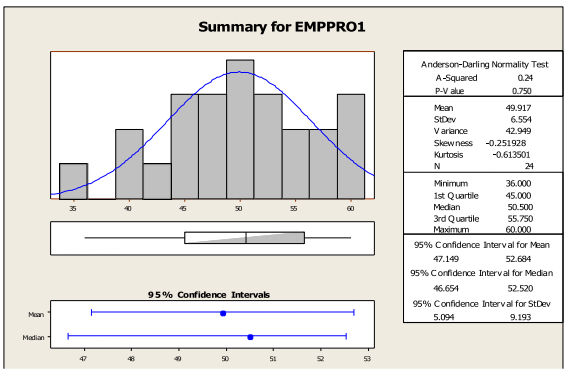

Figure 4.2

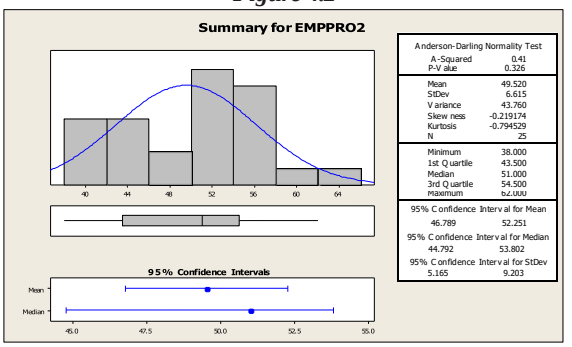

Figure 4.3

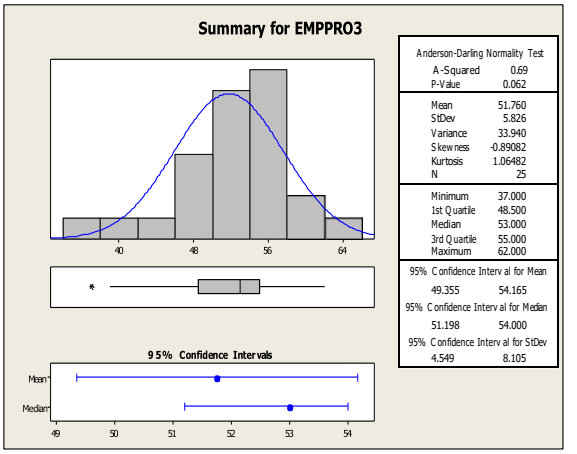

Figure 4.4

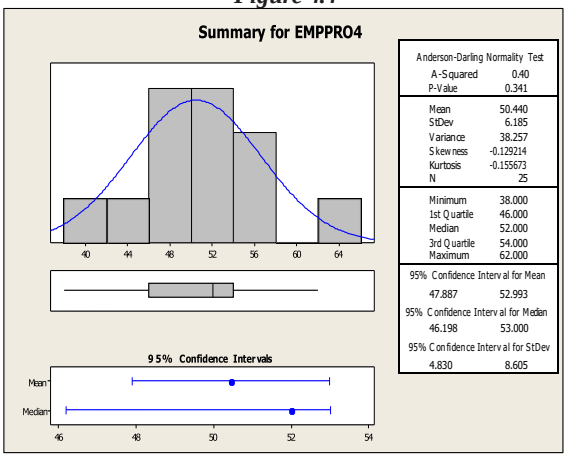

Table 4.2 is signifying the homogeneity of variance between the two groups. p value of .580 signifies the equality of variance. (The p value in Levene's Test is supposed to be less than 0.05, the value of p in table 4.2 is , .Hence, the second assumption is fulfilled.

Table 4.2
Levene's Test of Equality of Error Variances

F	df1	df2	Sig.
.658	3	96	.580
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.			

Table 4.3
Tests of Between-Subjects Effects (Two-Way ANOVA)

Source	Type III Sum of Squares	Degree of Freedom	Mean Square	F Value	Sig. (p value)	Value of Partial Eta Squared
Corrected Model	63.440a	3	21.147	.509	.677	.016
Intercept value	255631.360	1	255631.360	6.152E3	.000	.985
GENDER	33.640	1	33.640	.810	.371	.008
GROUP (test and control)	29.160	1	29.160	.702	.404	.007
GENDER * GROUP (joint impact)	.640	1	.640	.015	.901	.000
Error	3989.200	96	41.554			
Total	259684.000	100				
Corrected Total	4052.640	99				
a. R Squared = .016 (Adjusted R Squared = -.015)						

The table 4.2 is depicting the values of comparison between rows i.e. impact of yoga practices on employee productivity, or in other words the comparison of employee productivity between yoga and non-yoga practitioners. The p value of .008 ($p>0.05$) is illustrating that there is no difference of employee productivity between yoga (experiment group) and non-yoga (control group). The comparison between rows i.e. impact of gender on employee productivity or the comparison of employee productivity between male and females is also not significant since the p value is portraying the value of .007 ($p>0.05$). The third value is demonstrating the joint impact of gender and yoga practices on employee productivity. The p value is .000 which is significant ($p<0.05$) representing the significant joint impact of gender and yoga practices on employee productivity.

Conclusion

In the study yoga practices (including yoga practitioner group and non-yoga practitioner group) and gender were the independent variables while the employee productivity was taken as dependent variable. The impact of yoga practices and gender was separately analyzed and then the joint impact of yoga practices and gender was analyzed among the employees of private service sector in Raipur city. The study observes that yoga practices and gender jointly have a significant impact on the employee productivity. This study reveals that alone gender or yoga practices do not influence the employee productivity.

Limitations

The study has been conducted in selected private service sectors only. The study may include public sector to compare. Furthermore, Raipur city of Chhattisgarh state was selected to conduct the study which may not truly represent the population.

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Evaluation of Multidimensional Body Image Profiles of Male and Female Indian Cricketers

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Introduction-

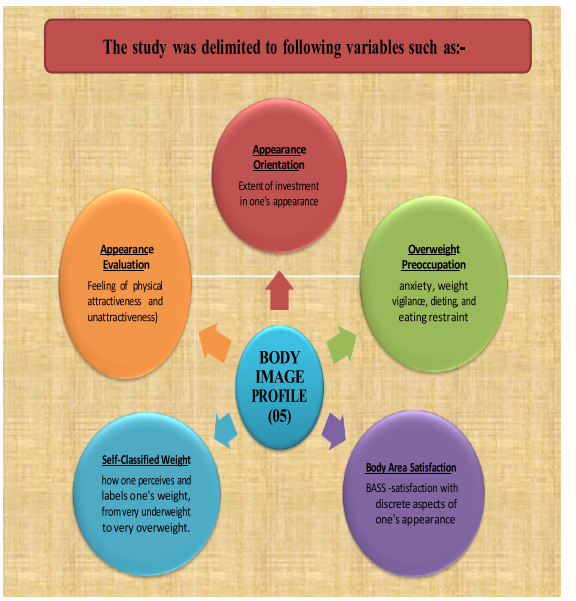
In modern glamorous sports environment the body image study has significant importance because good body image has highly value at media coverage. Recent research suggests that cricketers have two body images one in sport and one outside of sport thus; they are at risk in either or both contexts. (De Bruin et al. 2011). Cricket is the most watched sports in India. The coverage of electronic media (TV, YouTube, hot star & Facebook, Twitter) and Print media (News paper, Magazines, Posters, Archives) are highly paid to the players. It is also noted that psychomotor abilities is also significant relation with body image as both are the significant components of a glamorous sports like cricket. So present study done on "Evaluation of multidimensional body image profiles of male and female Indian cricketers".

Statement of the Problem-

"Evaluation of multidimensional body image profile of male and female Indian cricketer's.

Objectives of the Study-

- **Objective-01-** Toevaluatemultidimensional body image profiles (MBI) among University, Club & District Level male Indian cricketers.
- **Objective-02-** To evaluatemultidimensional body image profiles (MBI) among University, Club & District Level female Indian cricketers.



Hypothesis-

Hypothesis-01-It is hypothesized that there would be no significant difference in body image profiles among male cricket players at different levels .

Hypothesis-02-It is hypothesized that there would be no significant difference in body image profiles among female cricket players at different levels.

Significant of the Study –

The result of the study would diagnose body image profiles of male and female cricketer at different levels. The findings can encourage women to have a more positive body image than girls and women who do not play sports. Finding may helpful to athletes about their misconception on sport participation. Study might be helpful to male athletes for their consciousness on body appearance. The result of the study can contribute to sports literature about the woman's participation in sport.

Procedure & Methodology -

Sources of various Subject for present study				
Male-75		150 Cricketers		Female75
Name	Male	18th to 25th years	Female	Source
University level	25	18th to 25th	25	LNIPE Gwalior ,
Club level	25	18th 25th	25	Ghy. Coaching
District level	25	18th to 25th	25	Kamrup, Dist.

Criterion Measures-

Body image profile is measured by multidimensional body self relation questionnaire (MBSRQ). (Prof. T.F.Cash USA 2000) 34-item measure that consists of 5 subscales. He is a Professor of Psychology Old Dominion University, USA Norfolk, VA 23529-0267 Office phone: (757) 683-4439 University E-mail: TCash@odu.edu Personal E-mail: TFCash@erols.com.

Administration Of Questionnaire & Collection Of Data-

The subjects were consulted personally and their sincere cooperation was solicited. Necessary instructions were given to the subjects before the administration of each test. The research scholar motivated the respondents by promising to send a separate abstract of the conclusions of his study to each of the subjects. Confidentiality of responses was guaranteed so that the subject would not hide their real feelings. No time limit for filling in the MBSRQ questionnaire was set but the subjects were made to respond as quickly as possible, once the instructions are clearly understood by them. The Body image profiles data were collected in the respective classroom and. Three separate days was used to collect all those data.

Design of the Study

In the present study simple random sampling technique was used; in which male & female athletes from three levels of crickets was compared separately,

Use of Statistical Software

IBM SPSS 20 Software: For the tabulation, calculation and treating the raw data with appropriate intended statistical treatment the twenty version of IBM SPSS software, widely used statistical software for windows operating system by social sciences faculties was used.

Statistical Procedure

The essential descriptive statistics was used. One way analysis of variance (ANOVA) was used to compare multidimensional body image profiles among cricketers. The post hoc-test (LSD) was applied in order to investigate the significant differences In all the statistical tests,

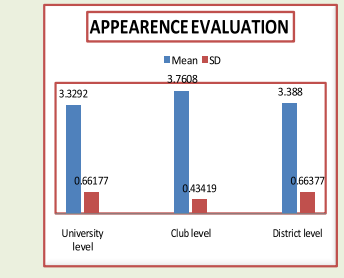
the level of significance was 0.05 and if the calculated P-value was less than 0.05, there exists statistically significant mean difference between the groups.

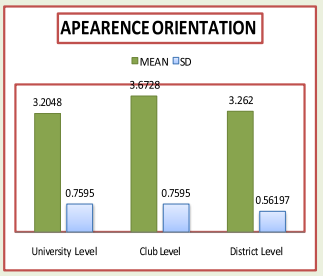
Analysis Of Data And Results Of The Study -

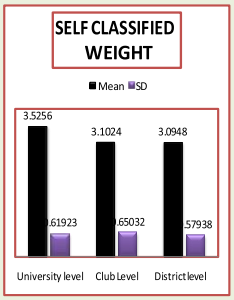
Table-01- Mean, Std. Deviation, Analysis of Variance (ANOVA) of University, Club and District Level Male Cricketers with Regard to Multidimensional body image profile

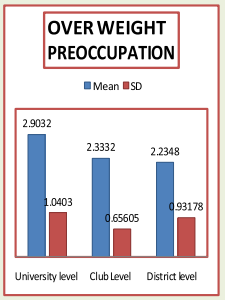
Body Image Profile (05)	University	Club	District	ANOVA F-ratio	P-value <0.05	LSD = P-value<0.05 Remarks
Appearance evaluation	ME-3.32 SD-0.66	ME-3.76 SD-0.43	ME-3.38 SD-0.66	3.85*	.026	Club level cricketer significantly higher
Appearance orientation	ME-3.20 SD-0.75	ME-3.67 SD-0.52	ME-3.21 SD0.56	4.19*	.019	Club level cricketer significantly higher
Self-Classified Weight	ME-3.52 SD-0.61	ME-3.10 SD-0.65	ME-3.09 SD-0.57	3.99*	.023	University level cricketer significantly higher
Over Weight Preoccupation	ME-2.90 SD-1.04	ME-2.33 SD-0.65	ME-2.23 SD-0.93	4.10*	.021	University level cricketer significantly higher
Body Area Satisfaction	ME-3.27 SD-.86	ME2.69 SD-.80	ME-2.85 SD-.83	3.13*	.049	University level cricketer significantly higher

*Significant at 0.05 level of significance
$F_{.05}(2, 72) = 3.13$









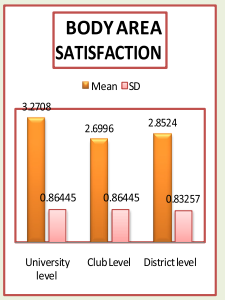
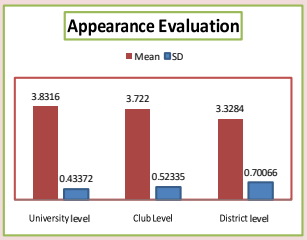
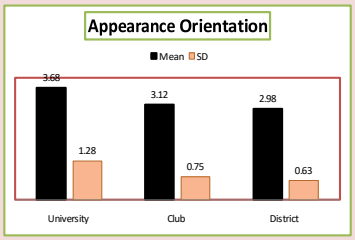


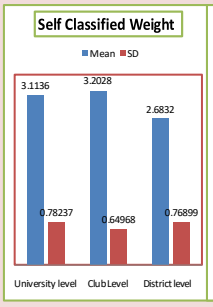
Table-02- Mean, Std. Deviation, Analysis of Variance (ANOVA) of University, Club and District Level Female Cricketers with Regard to Body image profile

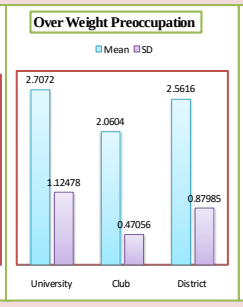
Body Image Profile (05)	University	Club	District	ANOVA F-ratio	P-value <0.05	LSD = P-value<0.05 Remarks
Appearance Evaluation	ME-3.83 SD-0.43	ME-3.72 SD-0.52	ME-3.32 SD-0.70	5.51*	.006	University level cricketer significantly higher
Appearance Orientation	ME-3.68 SD-1.28	ME-3.12 SD-0.75	ME-2.98 SD-0.63	3.92*	.024	University level cricketer significantly higher
Self-Classified Weight	ME-3.11 SD-0.78	Me-3.20 SD-0.64	Me-2.68 SD-0.78	3.56*	.033	Club level cricketer significantly higher
Over Weight Preoccupation	ME-2.70 SD-1.12	ME-2.06 SD-0.47	ME-2.56 SD-0.87	3.81*	.027	University level cricketer significantly higher
Body Area Satisfaction	ME-3.43 SD-0.99	ME-2.71 SD-0.90	ME-2.96 SD-0.91	3.73*	.029	University level cricketer significantly higher

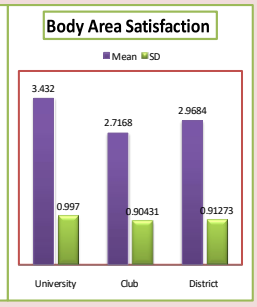
*Significant at 0.05 level of significance
$F_{.05}(2, 72) = 3.13$











Conclusion -

Conclusion-01

- There was significant difference in multidimensional body image profile of university, club and district level male cricketers.
- The University level male cricketers were found to be higher in self classified weight, over weight preoccupation and body area satisfaction.
- Club level male cricketers were found to be higher appearance evaluation and appearance orientation.

Conclusion-02

- There was significant difference in multidimensional body image profile of university, club and district level female cricketers.
- University level female cricketers were found to be higher appearance evaluation appearance orientation over weight preoccupation and body area satisfaction. Club level cricketers were found to be higher self classified weight.

Plan for Future Study-

- A study of similar type may be conducted considering large number of athletes in same/different game and sports.
- A study of similar type may be conducted considering national and international level athletes in same/different game and sports.
- A study of similar type may be conducted considering different variables of athletes in different game and sports.
- A study may be conducted on impact of media on body image particularly among children and adolescents.
- A study of similar type may be conducted on the male and female of different age group and levels.

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