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Editorial

In the world of globalisation, the impacts of global events can be felt by almost every country due to integrated and closed globalised economy of every developed and developing country. In recent times, 3 of the major events are anticipated to have major impact on the whole world.

Firstly, The Brexit, or britain's exit from European Union. Its direct impact will be on immigration, cheap labour in UK to and fro, the exceeding exports from Britain to European Union. India has always looked at Britain as a gateway to European market and Brexit will surely have negative short term impact on India but a great opportunity to approach new markets directly.

Secondly, the ever changing Image of India on global platform. The world is taking note of the growth story of India. And from the background , we are now at the forefront of every global policy and have become a key player from just a natural ally to the developed nations. ISRO's achievements give India that scientific edge over others. Along with 1.2 bn population and the growing economy , India are surely going to play a major role in shaping the world at macro and micro level.

Thirdly, The United States' presidential elections in November 2016. The top two candidates from the respective Democrats and Republicans are very contrasting in their style and it will surely be interesting to see how America votes. Whether they go with the tried and tested Hillary Clinton or go with the surprise unpredictable package in Donald Trump. Only time will tell, but surely this will have a major impact on middle east policy, key allies, Trade and immigration.

I feel these 3 major events in 2016 will shape the global events in the near future. We as research scholars should follow these events closely as we have the power to convert information into research and in turn creating a fresh point of view which is much needed in ever changing World.

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The Study of Velocity and Angle of take off in Standing Long Jump in Different Groups

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Abstract

The purpose of this study was survey effects changing velocity and angle of takeoff in the standing long jump. Sixty healthy student boys (twenty of each age 7,10 and 16 years old) were randomly selected from schools Rasht city .The first markers put on the centers of joint and then they performed standing long jump with full effort. Body segment and joint angles were recorded and analyzed by four M3500 cameras high speed video cameras (100 frams.s-1) and using software computer and mathematical models .Average standing long jump performance were 99.5 ± 13.1 , 138.16 ± 24.6 and 202 ± 18.4 for 7, 10 and 16 year old boys respectively. Result revealed significant different in angle and velocity of take-off between three groups ($P<0.05$). It was indicated that there were positive relationship between velocity of take-off with distance of standing long jump ($P<0.05$) also There were negative relationship between angle take-off with distance of standing long jump ($P<0.05$).It was concluded that using biomechanical factors caused improvement of standing long jump pattern and distance also with increasing age, power and probably in effect of training and experience improve biomechanical parameters of standing long jump.

Keyword: velocity and angle of takeoff, standing long jump.

Introduction

Biomechanics science has a special place in advancement of goals coaches and athletes and leads to do correct the ideals sporting skills. This knowledge not only pays to athletic skills analysis, but also, different contexts of athletic performance such as sports tools are checked. In other words, knowledge of biomechanics puts the coach in a situation that he's able to investigate and evaluate and select the most desirable technique, if an error occurred in doing skills, he can find the original source. Throwing movement of the body is a prerequisite for sports skills that analyzing them can to help the coaches in learning and motor planning of children. Throwing movement of the body according to how takeoff and landing are divided to: leaping, hopping and jumping.

Jumping is a sophisticated and advanced combination of two fundamental patterns, walking and run, although some researchers believe that even walking is also an initial attempt to jump. However, jumping is more difficult than running and walking. It needs the feedback mechanism, deep receivers and a sense of motion, muscle strength and along with, complex balance to maintain body position in space and landing is needed. A basic and simple form of jump exists from two years old, and technically, in running when the child pushes himself at least ability to jump.

At the age of four years old, different types of jump have seen in children, and the age of six, children are able to do the full jumping. Jump is done in two forms; vertical jump and standing long jump, that the standing long jump as fundamental motor skill to learn and increase performance in sports skills and which have their own specific biomechanical principles that by having attention to them, success rate is developing in sports performances of motion planning. Mostly it has been thought that the only cause of increasing the record in standing long jump is the muscular strength and physical properties. However, we can't easily disregard the utilizing a proper techniques for moving

performing mechanical laws.So perhaps we can say that a standing long jump is a function of muscular strength and various factors of biomechanical of the body.

Standing Long Jump

Hay & Broer and Zernichek believe that a standing long jump is combination of three basic steps; takeoff, flight and landing. That the takeoff is the most important steps and flying is the less significant stage, in standing long jump. There are many variables in takeoff stage such as; joint angles, angular velocity of takeoff, which can make some changes in type and shape of jump. In standing long jump with enough force to overcome the inertia and gravitational attraction can act in an angle that a favorable flights and the required distance are used. Throwing angle is determined by the force applied. If the pulling force is constant, the thrown angle of the objects determines the range and the distance. The most effective and best angle for maximum distance 45 degrees, where the start and end are at the same surface. In this case the exerted horizontal and vertical force on the object is equal. On the other hand the fluctuations of takeoff angle lead some changes in the jump distance. If the takeoff angle was too great, horizontal velocity won't produce enough. And also, if the takeoff angle was low, altitude and time effective for swinging forward wouldn't emerge, in feet and under the body for being in effective situation. And also if the angle was too low or high the required force to jump won't produce. Wilson (1945) in his study found that takeoff angle and descent angle is decreased by the age. Henry (1948) in his study observed that takeoff degree for an average is 41.3 degrees. While Zimmerman (1956) was observed the takeoff degree in 45 degrees in the good jumpers, But in Roy and his coworkers research (Roy et. Al 1971) on boys of, 7, 10, 13 and 16 years old, they found that the takeoff angle in average is between 26-29. And the degrees and the horizontal velocity by the age improved but the vertical speed almost didn't change. Philips, Clarck & Peterson (1985) in a study on 102 children in the age of (3-7) years old showed that by increasing speed, launch angle decreases. And also the flight gets more the horizontal shape. Agudo and his coworkers (et.al 1997) in their study on performance of standing long jump on 64 subjects of 19-21 years old could find out that the takeoff angle of the subject is 25-31 degrees. They also had found a relationship between the angle and speed of takeoff. Nick Linthorn (2000 - 2001) in his study on the elite jumper had earned the takeoff angle between 25-18 degrees. He also earned that, having speed is more important than the angular jump in jumping. Masaki Wakai In 2002, in a study was conducted on five male subjects found that takeoff speed decreases rapidly by increasing the takeoff angle. He also observed that the jump distance decreases by increasing the takeoff angle.

Method:

Sixty healthy student boys (twenty each of age 7, 10 and 13 old years) volunteered to take part in the study. The first anthropometric characteristics including height, weight, length, thigh, leg and arm were measured and recorded and then put markers on the joint center of ankle, knee, hip, wrist, elbow, shoulder and on head and then subjects performed three jumps with maximal effort. All jumps were recorded by three 3500 video cameras high speed videography. For analysis, the first selected best jump (the jump is that most distance) and then soft ware Decoder blaster and Xing encoder player was used to determine factors biomechanical of take off also for some factors was used of the mathematical models.

Anthropometric characteristics

age	height (cm)	weight (kg)	distance (cm)	Length of Humerus (cm)	Length of femur (cm)	Length of leg (cm)
7	± 7.6 124.6 -135.5 113	23.2 ± 4.2 18-31	99.15 ±13.1 85 -125	21.9±2.6 20-24.5	30.9±3.3 25-34	29 ±3.1 25.5-31
10	5.6 134.2± 128-149	30.8 ± 7.4 27-54	±24.6 138.16 115 -155	24.2 ± 2.4 22.5-27.5	33.4 ± 2.5 31-37	33.2 ± 4.2 31-39
16	± 7.02 169 156-185	± 12.6 57.1 43-90	202 ±18.4 175 -240	31.9 ± 3.1 28-35	41.3 ± 4.3 35-46/5	42.7± 5.1 35-47

Take off angle and speed

age	Take off angle (degree)	Take off speed (m/s)
7	47 ± 7.1 (32-60)	3.167 ± 0.22 (2.8-3.57)
10	36 ± 5.36 (30-47)	3.697 ± 0.261 (3.08 -4.1)
16	30 ± 3 (24-35)	4.77 ± 0.296 (4.39-5.32)

Analysis data

variable	Fob	P<0.05	Tukey test		
			7-10	10-16	7-16
Take off angle	48.591	*	*	*	*
Take off speed	197.3	*	*	*	*

t_{cr} = 2 , P<0.05 ، d.f = 58

Discussion and Conclusions:

The standing long jump is a form of throwing movement of the body which among of other jumps, this jump requires the greater coordination of nerve muscle. Standing long jump involves three phases; takeoff, flight and landing. The Takeoff phase of view of some researchers is an important phase in the standing long jump, and the biomechanical factors, particularly the speed and angle of the takeoff are effective in achieving distance. In this study it was shown that there is a significant relationship between takeoff angle and distance jump. And also a significant difference in takeoff angles among three age groups was observed. When the center of gravity is ahead of takeoff point, the force applied in jumping is back down and effective reaction force on the body is divided into two parts, one forward and the other is applied to the top. When the takeoff angle increases, the vertical component force is more than the horizontal component force, resulting in the high jump further up front. On the other hand by increasing takeoff angle, the most muscle forces of jumper to overcome the weight are used and the less force to accelerate the body will be used. So enough force to overcome inertia and gravity attraction towards down can be created at an angle that leads the favorable flight in the air. And also when the takeoff angle is large, horizontal velocity is reduced, thus decreasing the distance. Reviewing this research results and other findings can say that the Henry

Zimmerman's results are different from the other researcher's results and probably these differences are caused by their used method. Whereas the findings of this research by Halorson and wakai's results are showed that the takeoff angle is related to the jump distance. In this case, reducing the takeoff angle increases the distance jump. In addition, this study emphasizes on Wilson and Philip's findings that with increasing age, takeoff angle decreases. It should be noted that reducing of takeoff angle is limited and this reduction is lower at older ages. In this study it was shown that there is a significant relationship between the takeoff speed and jump distance, and also there is a significant difference was observed in takeoff speed of three age groups. Results of This research plus Roy, Philip and their coworker's findings, in relation between takeoff speed and age are in agreement. And also the takeoff speed and the jump distance, the findings of this study are in agreement with Bridget and Agudo's results. Takeoff angle and speed are two variables that in physical rules relate to each other in gestures launchers, and on the other hand Linthorn says that takeoff speed is more important than takeoff angle. Perhaps the takeoff speed depends on many factors, which one of them is a takeoff angle.

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Building a Warm-up FIFA 11+Program in Level 1 for Students in Football Major of Danang University of Physical Education and Sports in Vietnam

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Abstract

The objective of this study was to selected and applied the suitable warm up exercises program for students in football major in order to reduce injuries in training and competing**.** In this study, researchers used participants included 2 groups: 18 students in Experimental group and 18 students in Control group to voluntarily complete the warm up program within 10 weeks, 2 sessions per week with 30 minutes per session. The result of this present study was revealed 15 exercises were be selected for students in football major, including: 6 exercises for general warm up, 6 exercises for core stability, plyometrics and balance and 3 exercises for accelerating. And the discussion was after 10 experimental weeks, we can see that there have a significant difference between 2 groups. Furthermore, the results of the application of warm up program to train both groups are increased. Besides, the figures of the control group lower than the experimental group's and there was a significant difference with $t>t_{table} = 2.032$ and $p<0.05$.

Key words: ***FiFa 11+, warm up program, students in football major, injury.***

Introduction

Nowadays, according to FIFA's statistics, there are nearly 300 million football players around the world and female players makes up for 40 million; especially, 2000 of them are professional performance players (Mario & Jiri, 2015). Furthermore, in Vietnam, it is estimated that there are 780 professional players. Following the trend of football's playing in the world, injury prevention is a significant problem that every teachers, coaches and athletes concern about it because it directly affects on training results and an achievements of athletes and the expense of injury treatment all over the world is approximate 30 billion USD every year. Therefore, it is necessary to find out the good methods to reduce injuries in training as well as competing.

In 2003, FIFA and Medical Assessment and Research Centre (F-MARC) and international experts created the first program called "The 11" and this program gives the methods for preventing injury to amateur players (Torbjorn, 2010). Since 2006, it called FIFA 11+ and has been widened all over the world by FIFA and it is a completed warm up program for male and female football players at the age of 14 and over. According to Jiri Dvorak (2009), it is a perfect program to prevent injuries from 30% to 50% in training and competition. Following this important issue, this research was applied the level 1 of FIFA 11+ program to teach the students in football major of DUPES in Vietnam (Chuong & Nam, 2014). It contributes to raise the teaching quality of the DUPES as well as it could be applied to any football course throughout in Vietnam.

Objectives

Selected and applied the suitable warm up exercises program for students in football major in order to reduce injuries in training and competing.

Methodology

1. Sample size

In this study, researchers used participants included 2 groups: 18 male students in Experimental group and 18 male students in Control group to voluntarily complete the warm up program within 10 weeks during January to March 2014, 2 sessions per week with 30 minutes per session.

2. Validity of instrument

According to previous documents of Torbjorn (2010) and Astrid (2010), a researcher composed a warm up program to students in football major in DUPES. Then, send this program to 16 experts, coaches, teacher twice in one month to review the program and to evaluate exercises in this program for clarity, readability, item relevance, discrimination, and inclusiveness. Later, they also arrange the level of the exercise in the program from high to low with 75% agreement was chosen. Furthermore, to estimate the solidarity of 2 interviews, we have carried out checking Wilconxon quote. Thus, the hypothesis was set that this was a significant difference between the first and the second interview. A result of this hypothesis was presented in the Table 1 below.

Table 1. The result of Wilconxon quote between the 1st and 2nd interview

Test Statistics	The 1st interview – The 2nd interview
Z	.000a
Asymp. Sig. (2-tailed)	1.000

a. Based on negative ranks.
b. Wilcoxon Signed Ranks Test

The result supported the hypothesis as in the table 1 two mean values of two general are the same and it showed that the meaningful level of the audit between 2 interview tests is
sig = 1.00 > 0.05. Therefore, we accepted the hypothesis that there was not a significant difference between the first and the second interview**.**

3. Statistical Data Analysis

All data was analyzed with using of a computer statistical program.

Result

In this study, we selected only exercises which got at least 75% of total agreement in two interviews, so we have chosen 15 exercises in table 2 for students in football major, including: 6 exercises for general warm up, 6 exercises for core stability, plyometrics and balance and 3 exercises for accelerating. Furthermore, the appendix A also revealed the 15 pictures for each exercise of warm up program.

Table 2. A result of selecting exercise of warm up program

No	Name of Exercise in Warm up program
Part 1	**General**
1	Straight ahead
2	Hip out
3	Hip in
4	Circling partner
5	Jumping with shoulder contact
6	Quick forwards and backwards sprints

Part 2	**Core stability, plyometrics and balance.**
7	The bench
7.1	Both legs
7.2	Alternate legs
7.3	One leg lift
8	Sideway bench
8.1	Static
8.2	Dynamic
8.3	With leg lift
9	Hamstring
9.1	Level 1: Beginner
9.2	Level 2: Intermediate
9.3	Level 3: Advanced
10	Single-leg stance
10.1	Hold the ball
10.2	Throwing ball with partner
10.3	Test your partner
11	Squats
11.1	With toe raise
11.2	Walking lunges
11.3	One-leg squats
12	Jumping
12.1	Vertical jumps
12.2	Leteral jumps
12.3	Box jumps
Part 3	**Accelerating**
13	Across the pitch
14	Bounding
15	Plant and cut

Table 3. Results of Descriptive statistics of the experimental group after training session with the warm up program

TT	TEST		1st			2nd			Progressive figures		
			$\overline{X}$	δ	Cv%	$\overline{X}$	δ	Cv%	W%	t_{table} = 2.032	P
1	Back Squat 3RM (kg)		88.33	14.14	16.01	110.56	13.05	11.80	22.35	4.90	<0.05
2	Bench press 3RM (kg)		40.00	8.22	20.56	55.83	8.09	14.49	33.04	5.82	<0.05
3	Vertical jump test(cm)		48.11	5.19	10.79	56.17	5.04	8.98	15.45	4.72	<0.05
4	Horizontal jump test(cm)		234.44	8.56	3.65	251.89	8.05	3.20	7.17	6.30	<0.05
5	Sit-up 1' (times)		37.22	2.26	6.08	42.22	2.26	5.36	12.59	6.36	<0.05
6	T test (s)		11.27	0.46	4.06	10.58	0.46	4.33	6.32	4.52	<0.05
7	Cooper 12' test (m)		2548.33	101.82	4.00	2875.00	81.04	2.82	12.05	10.65	<0.05
8	Hopping 5 steps with one foot test (m)	Left	11.36	0.87	7.62	13.41	1.17	8.71	16.62	6.01	<0.05
		Right	11.72	0.83	7.05	13.68	1.24	9.07	15.40	5.57	<0.05
9	Leg extensions 3RM(kg)		170.00	18.47	10.87	181.17	12.41	6.85	6.36	4.13	<0.05
10	Leg curl 3RM (kg)		105.28	12.18	11.57	124.17	8.62	6.94	16.46	5.37	<0.05

Table 4. Results of Descriptive statistics of the control group after training session with the warm up program

TT	TEST		1st			2nd			Progressive figures		
			$\overline{X}$	δ	Cv%	$\overline{X}$	δ	Cv%	W%	t_{table} = 2.032	P
1	Back Squat 3RM (kg)		88.06	11.26	12.79	93.06	11.26	12.10	5.52	1.332	>0.05
2	Bench press 3RM (kg)		40.83	7.91	19.36	45.83	7.91	17.25	11.54	1.897	>0.05
3	Vertical jump test(cm)		47.89	5.19	10.84	49.89	5.19	10.40	4.09	1.156	>0.05
4	Horizontal jump test(cm)		238.11	9.53	4.00	240.11	9.53	3.97	0.84	0.630	>0.05
5	Sit-up 1' (times)		36.78	2.49	6.76	38.78	2.49	6.41	5.29	2.413	<0.05
6	T test (s)		11.37	0.48	4.25	11.17	0.48	4.33	1.77	1.242	>0.05
7	Cooper 12' test (m)		2642.22	181.94	6.89	2712.22	181.94	6.71	2.61	1.154	>0.05
8	Hopping 5 steps with one foot test (m)	Left	11.67	0.85	7.22	12.73	0.85	6.65	8.18	3.542	<0.05
		Right	11.02	0.76	6.60	11.93	0.76	5.93	10.68	5.126	<0.05
9	Leg extensions 3RM(kg)		167.78	17.68	10.53	166.94	13.95	8.35	0.50	0.157	>0.05
10	Leg curl 3RM (kg)		103.06	12.96	12.58	108.06	12.96	12.00	4.74	1.157	>0.05

Table 5. Descriptive statistics and Independent t-test to compare the difference of the experimental group and the control group after training session with the warm up program

TT	TEST		Experimental group			Control group			t student	P
			$\overline{X}$	δ	Cv%	$\overline{X}$	δ	Cv%	t_{table} = 2.032	
1	Back Squat 3RM (kg)		110.56	13.05	11.80	93.06	11.26	12.10	4.31	<0.05
2	Bench press 3RM (kg)		55.83	8.09	14.49	45.83	7.91	17.25	3.75	<0.05
3	Vertical jump test(cm)		56.17	5.04	8.98	49.89	5.19	10.40	3.68	<0.05
4	Horizontal jump test(cm)		251.89	8.05	3.20	240.11	9.53	3.97	4.01	<0.05
5	Sit-up 1' (times)		42.22	2.26	5.36	38.78	2.49	6.41	4.35	<0.05
6	T test (s)		10.58	0.46	4.33	11.17	0.48	4.33	3.78	<0.05
7	Cooper 12' test (m)		2875.00	81.04	2.82	2712.22	181.94	6.71	3.47	<0.05
8	Hopping 5 steps with one foot test (m)	Left	13.41	1.17	8.71	12.73	0.85	6.65	4.90	<0.05
		Right	13.68	1.24	9.07	11.93	0.76	5.93	7.39	<0.05
9	Leg extensions 3RM(kg)		181.17	12.41	6.85	166.94	13.95	8.35	3.60	<0.05
10	Leg curl 3RM (kg)		124.17	8.62	6.94	108.06	12.96	12.00	4.39	<0.05

After 10 experimental weeks, we can see that there have a significant difference between 2 groups. The results of the application of warm up program to train both groups are increased. However, the figures of the control group lower than the experimental group's and there was a significant difference with $t>t_{table} = 2.032$ and $p<0.05$.

This results showed the effectiveness of FIFA 11+ warm up program through 10 weeks with 2 groups having the same levels and there is no significant difference between them with $t<t_{table} = 2.032$ and $p>0.05$, FIFA 11+ has effectively impacted on study objects. Hence, the record is extremely improved and there was a significant difference with $t>t_{table} = 2.032$ and $p<0.05$.

Discussion

1. The fact is that students are inquired to combine all the essential abilities in training and competing to have the best achievements. It is necessary for teachers to evaluate the improving state of each student precisely by evaluating criteria and give tests in different teaching periods. Hence, teachers can master the progress of their students and give suitable and effective curriculum.
2. The warm up of students should be based on request, goals and personal ability. The selection of exercises ensures that they could make all muscles work in order to strengthen muscles improve, agility and balance, etc. which helps prevent injuries during practicing.
3. Selecting a suitable warm up program is one of important factors deciding the success of training session as well as training circle. The selection program and finding the specialized content for each program depends on the character of each land of sport, the training target and training period.

4. The main muscle are different in various performances of each kind of sports. It depends on specialized skills. Moreover, the selection relies on the characters, goals of different training period.

The principles for selecting warm up exercises:

a. Arrange the content from easy to difficult level
b. Load of performance is gradually increased
c. Analyze the direction of performance (direction, angle, posture, etc.)
d. Determine the main muscles
e. Select the exercises revolving the main muscles (make sure that the selection bases on the similar direction and angle contraction toward each skills, especially in preventing injury). Finally, after 10 experimental weeks, the exercises positively affect on strengthening and injury preventing.

Conclusion

1. The study has established 15 warm up exercises for students in football major, including:
   - 6 exercises for general warm up;
   - 6 exercises for core stability, plyometric and balance;
   - 3 accelerating exercises.
2. The evaluating criteria of students in experimental group are better than those in control group. It means that the state of physical condition these students significantly improves and the muscles develop equally, which help prevent injuries in training and competing effectively.
3. Hence, we come to the conclusion that FIFA 11+ program is suitable and effective method for preventing injuries for students in football major at DUPES.

Recommendations for applying FIFA 11+

1. Continuing apply the practical program of FIFA 11+ to students at next courses at DUPES
2. Applying FIFA 11 + to specific objective groups in order to clarify the effects of these exercises on development of physical condition and preventing injuries.
3. Use FIFA 11+ as the background of other studies on establishing physical condition training and teaching curriculum.

Recommendations for further research

1. Study in the application of FIFA 11+ at upper levels
2. Study in the application of FIFA 11+ to other subjects such as: students in athletics, swimming, and martial art majors.

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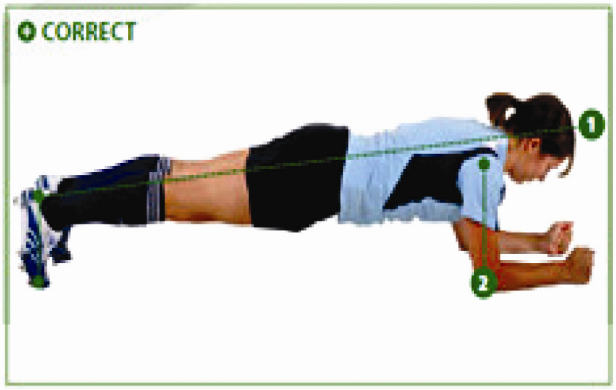
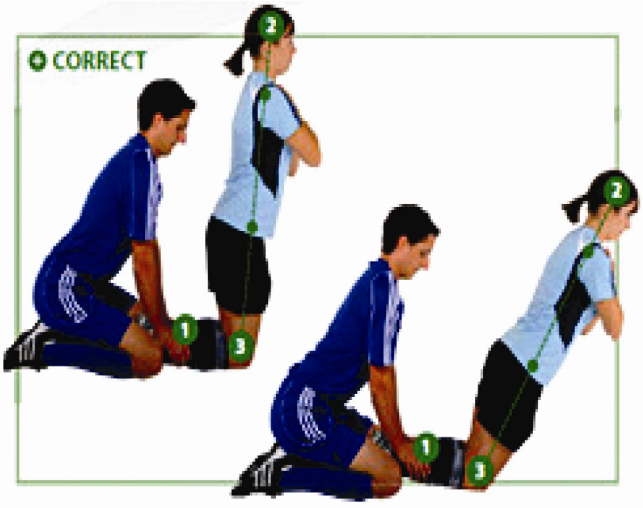
APPENDIX A
Part 1: General

APPENDIX 2
Part 2: Core stability, plyometric and balance



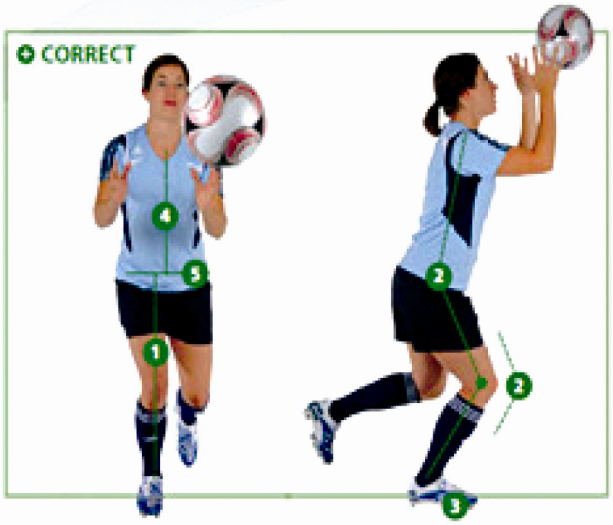
7.1 Both legs

8.1 Static



9.1 Hamstring – Beginner

PHẦN II: Sức mạnh phần trọng tâm cơ thể, ứng xuất đàn hồi và thăng bằng



10.2 Single leg stance – Throwing ball with partner

11.2 Squats – Walking lunges

12.1 Jumping – Vertical jumps

APPENDIX C

Part 3: Accelerating exercises

PHẦN III: Tăng tốc

13. Across the pitch

14. Bounding

15. Plant and cut

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Discus Familiarization for Elites – A Rational Approach

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Abstract

The familiarization exercises are important for each and every sport or an event. Because these exercises are the base for teaching a technique or skill in proper manner. These exercises must be taught first before you enter into main part. I could say that this familiarization exercises are known as specific exercises of an event or sport. We are all familiar about the general and specific exercises and but each have its own common and specific objectives. The familiarization of discus may not be applicable same for all the categories (Novice, Inter mediate and elites). Each and every category has its own limitations and delimitations. This article describes the familiarization exercises only for elites and also would pave way for the further improvement in discus throwing.

Keywords: Discus, Familiarization, Elites, Technique, Exercises.

Introduction

The discus throw is an event in track and field Athletics competition, in which an athlete throws a heavy disc called a discus in an attempt to mark a farther distance than his or her competitors. It is an ancient sport, as evidenced by the 5th century BC Myron statue, *Discobolus*. Although not part of the modern pentathlon, it was one of the events of the ancient pentathlon, which can be dated at least back to 708 BC. The discus throw is a routine part of most modern track and field meets at all levels and is a sport which is particularly iconic of the Olympic Games. The men's competition has been a part of the modern Summer Olympic Games since the first Olympiad in 1896. Images of discus throwers figured prominently in advertising for early modern Games, such as fundraising stamps for the 1896 games and the main posters for the 1920 and 1948 Summer Olympics. The women's competition was added to the Olympic program in the1928 games, although they had been competing at some national and regional levels previously. (Wikipedia.Org)

Objectives of familiarization exercises

1. Develop specific skills and specific fitness to a particular sport.
2. Develops specific speed, strength, endurance and other related motor qualities in relation to the specific event.
3. Develops Co-ordination of specific muscles and muscle groups.
4. Develop and apply knowledge about general rules, refereeing, and training.
5. Work effectively by him / her toward a specific goals.
6. Atomization of a technique through kinetic and kinesthetic aspects.
7. Not to prone injury.
8. Develop mental strength for particular event.
9. Obviously, it improves technique.
10. Athlete could fell the weight of standard implement at all the time (seasons)

Implement is a tool (light, standard and heavy)

Usually the following sequences are followed in performance sports training especially on throws. The weight age of training first given to develop the specific strength of the muscles, technical perfection and speed of the specific muscles. During the early season, the specific strength and balanced approach are used more often. As the peak season approaches, speed training is more dominant. The coach should find what method works best for each athlete and develop a program that best fits each thrower. Generally, there must be a 10% difference in performance between the standard

and light/heavy implements listed. It is not recommended going beyond or below the implement weight listed for most throwers. Suggested weights are given below to develop some important aspects of throws.

Table 1. Recommended weights for different parameters

Speed	**Specific Strength**	**Balanced**
30% of Standard Weight	20 % of Standard Weight	34 % of Standard Weight
60% of Light Weight	20% of Light Weight	33 % of Light Weight
10% of Heavy Weight	60 % of Heavy Weight	33 % of Heavy Weight

Familiarization exercises for Discus throw

Some of the specific exercises to improve various phases of the technique for Elites.

1. Grip
2. Vertical spin
3. Throws for height (with count)
4. Throws for height (without count)
5. Figure 8
6. Arm swings
7. Discus bowling
8. Gross cutting

1. Grip: The discus should be hold at the first phalanges of index and middle fingers. It should be held together. The other fingers slightly apart. Palm at the centre of the discus. Lock the discus with your forearm.

Most accomplished throwers grip the discus with all fingers rather close together- the first two fingers very close together (less than 1/8 inch apart) and the next two not spread very far, perhaps 1/4 to ½ inch. The thumb lies alongside the index finger separated by about 1 inch. (Jay Silvester, 2003)

Figure 1. Grip (Holding the discus)

2. Vertical Spin:

Objective: Purpose of this drill to have a familarise with the discus and to have a control on it.

Starting position: Have a parallel stance and hold the discus in right hand (depends)

Description: Flip the discus in clock wise direction vertically with the use of index finger just above the head. The thrower shall pitch up the discus like softball pitcher.

Make sure that discus shall rotate several times in the air and also confirm that use index finger at the time of release. Discus should move in the vertical path without wobbling in the air.

Use this for proper release of discus and the athlete must be comfort with the grip and handling the discus.

Figure 2. Vertical spin (Lateral View)

3. Throws for height (with count)
Objective: Use this drill for proper release of the discus.
Starting Position: Start the exercise by keeping left leg front for a right arm thrower; hold the discus just above the head with both hands stretched position. (**Mark Harsha**)
Description:
Count 1: From the above said position, flex both the knees simultaneously bring the discus down and bring it back.
Count 2: Stretch the entire body vertically and release the discus high when throwing arm reaches above your shoulder and maintain the position for a while after release.

Figure 3. Vertical spin (Lateral View)

4. Throws for height (without count)
Objective: Use this drill for proper release of the discus.

Starting Position: Start the exercise by keeping left leg front for a right arm thrower; hold the discus just above the head with both hands stretched position.
Description: Follow the previous instruction of Exercise 2 and perform without count.

Figure 4. Vertical spin (Lateral View)

5. Figure 8
Objective: use this drill for proper control over the discus.
Starting Position: Have a parallel stance with the discus
Description:
1. Hold the discus in throwing arm and move the discus in Figure 8 path.
2. Make sure that the discus should not fall down when perform this exercise.
3. Have a comfortable circle of figure 8 and try to make the circle as big as possible.

Note: Do this exercise just parallel to the body. At any cause, discus should not cross the plumb line if the body.

Figure 5. Figure 8

6. Arm swings
Objective: Use this drill to teach about centrifugal force
Starting position: The thrower stands with feet shoulder width apart. Place the discus into throwing hand.
Descriptive: Swing the discus level with the shoulders back and forth catching it in your left hand and the athlete should feel the discus pushing out on the hand. Insists the thrower that high range is beneficial for bio mechanical advantage.

Note: Make sure that the thrower must shift the body weight left to right and right to left. Do the swings more repetitions.

Figure 6. Arm swings

7. Discus bowling

Objective: use this drill for proper release of the discus and to control over it.

Starting position: The thrower will place the discus in his hand with proper placement

Description: The thrower will bowl the discus to his partner that is standing 15 feet away Remember to squeeze the discus out making sure the discus rolls off the index finger and does not wobble. Once the thrower becomes proficient at 15 feet move the partners farther away from each other or have the thrower bowl at a target.

Figure 7. Discus Bowling

8. Gross cutting

Purpose: Use this drill for proper release of discus and athlete will be familiar with the reverse.

Starting position: Have a parallel stance with the discus.

Description: Take a swing and bring the discus back by flexing both the knees. Release the discus perpendicular to the ground and make sure that much rotation shall takes place on the gross like cutting the gross.

Figure 8. Gross Cutting

Conclusion

Now days, the familiarization of exercises are ignored not only in discus, but also in other events too. The current trend concentrates only on the strengthening part of entire body by using free weight, with weights, multi gym and other means. Firstly, to improve the real strength of the particular (specific) muscles shall be developed by familiarization exercises and then advisable to opt other training means and methods next. One way or the other this approach would minimize the error and an injury.

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Employer Branding Strategies of Indian Companies

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Abstract

Some quote 'employer branding' to be an indispensable strategy; others term it as a mere fad.This paper gives some concept on employer branding and also to find out how Indian organizations cope up with the change to attract and retain employees The paper identifies the factors pertinent in developing the employer brand, attributes considered most important in attracting new talent to the companies, challenges in managing an employer brand, factors an employee considers important about working with his company. The dramatic changes in the workforce trends and the immense competition in the labor market have made it imperative for companies to develop strategies to differentiate themselves. The increasing focus on competitive advantage is leading many Indian firms to rethink their employer brands. A powerful employer brand has the capacity to attract and retain talent and represent quality to its customers, with the goal of gaining global recognition in a sustainable manner. The right kind of employer branding has also plenty of advantages as it provides a personality to the company and helps structure recruitment Employer branding undoubtedly is a significant precept of modern management, one that offers a fine blending of the science of marketing with the art of enlightened human relations management.

Introduction

According to Saratoga institute and US department of Labour, one fortune 500 company spends 3 billion dollars on peoples spending in all forms of pay. American Express, Cisco Systems, Amgen, Starbucks, and Intel have received recognition on The List of 100 Best Companies to work for in America are leaders in Employer Branding as well. "They all share the common trait of treating their employees better than their peers in their industries, and all invest heavily in employee training and development," states Hornung .

Companies who don't invest in developing an effective Employer Brand will, in the long run, be less financially successful than those who are. As stated by **States Woltzen**, "They will not be able to recruit or retain the high-performing employees they will need to run a successful business". Companies that are considered good employers have a strong identity and an image in the marketplace.

With the liberalization of the Indian economy in 1991 and the subsequent economic reforms, Indian companies are becoming internationally strategic to use the employer brand to attract and retain talent which leads to growth of the business. Statements like RINL(Rashtriya Ispat Nigam Limited) Personnel department gets ISO 9000 for its excellent services in Human resources, Standard charted bank employees to have5 days week, ICICI plans to recruit 30,000 employees in coming year , Accenture on course to hit 35,000 headcount in India, Infosys to open BPO unit in Mexico, Wipro's in Egypt or the UB groups acquiring Shaw Wallace indicate the power of Brand image.

This paper gives some concept on employer branding and also to find out how Indian organizations cope up with the change to attract and retain employees.

Employer branding

It explains an organisation's reputation as an employer. This term was first used in the early 1990s, and now it is widely adopted by the global management community. Minchington (2005) defines employer brand as "the image of your organisation as a 'great place to work'"..

Just like any other brand, an Employer Brand has value and positioning. Employer branding is critical to build an image in the minds of potential employees and market the company as a 'great place to work'. The objective of Employer Branding is quite simple. It is a strategy employed by an organisation to create an Employer Value Proposition (EVP) that conveys to desired current and prospective employees that the organisation is unique, appealing and a fantastic place to work.

An employer brand is the organisation's identity to its employees. As human resources experts Libby Sartain and Mark Schumann put it, the employer brand is what the company "promises to deliver emotionally to connect employees so that they in turn deliver what the business promises to customers." An employer brand identifies and amplifies the distinctive values, character and style that set the organisation apart from others. Employer brand is an expression of an organisation's values and culture.

Global Manpower survey findings

Manpower's 2009 Talent Shortage Survey conducted with nearly 39,000 employers in 33 countries reveals that the employers are facing a scarcity of talent in critical areas. Even though the companies reduced their hiring, they are still looking to fill important positions but they are having trouble in finding good people. With unemployment at or near record levels in many countries, positions in the skilled trades, sales, technical work and engineering remain the most difficult for employers to fill globally.

The talent shortage doesn't affect all regions equally. The problem is far more acute in Japan (55%) and Australia (49%), than it is in the U.K. (11%), France (18%) and the U.S. (19%). Vacancies in skilled trades like electricians, plumbers and carpenters, are the most difficult to fill for the second year in succession. Similarly, experienced sales representatives are still in high demand. Perhaps the most important inference to be drawn from this data in these uncertain times is that employers have to master a difficult balancing act in terms of talent management: They must contain costs for the short term without compromising their longer-term appeal to those key groups of talented workers capable of providing real competitive advantage for the future.

Employer branding strategies

The key to building the right employer brand begins with identifying the distinctive qualities of the organisation that create an emotional connection between employer and employee—the qualities that make people love working there and bring them fulfillment. While preparing the employer branding strategies the employer has to consider the following factors.

- Branding should be based on the nature of business.
- It is always recommended to check the market condition before going for any project which involves market risk.
- It's always good to define the targeted audiences.
- Budget always plays an important role in deciding the strategies.
- Long term as well as short term goals of the organization should be kept in mind.
- Organizational structure is also very vital part for deciding any strategy. Organizational structure is the strength of any organization and any event or branding can be done based on that.

External Branding

External branding refers to branding which is done by using external sources and which may require some investment in monetary or other forms.

Use of job sites – As HR the first thing which comes to the mind is recruitment, so Job sites also offer good branding opportunities through different means like Pop ups, pop ins etc.

Banners – Banners are also a good mean for branding. Banners can be of both types' means

Online Banner and Street banners. By Online banner, the organization name will be flashed on different web pages as per your choice and price.

Organizing seminar, presentation -The organization can organize talks, presentations, seminars etc. for attracting people towards your organization.

Corporate social responsibility (CSR)- Corporate social responsibility refers to corporate getting associated with society for some noble cause. The association can be in any mode either getting associated with a Charitable Trust or a NGO or some other public venture.

Public events – Public events are one of the major ways of creating a brand image. An organization can participate in any of the public event.

Newspapers- Branding can be done through newspapers as well. If you target the local public, you can go for advertisements considering the individual day circulation, target readers, rapport of newspaper, type of newspaper etc.

Email – For mail ids related to job portals, the organization can create an auto reply which can contain brief description of the key aspects of candidate's and public interest and at the same time introducing that company to the public.

Internal Branding

Internal Branding is concerned with the current and potential employees' information about the employment experience and what is expected of them**.** It is comparatively a cheaper way of branding. The following are few strategies followed by companies.

Front office –the front office play an important role because first impression is last impression. It should be kept neat and clean with a pleasant receptionist who always maintains freshness and welcomes the guests with courtesy.

Stays interview – HR department can always conduct stay interviews in which they can interact with the employee and ask them regarding their career prospects, there alignment with the company, there feedback regarding their concerned departments, etc. These feedbacks could be analyzed and therefore an internal brand image of the country can be created.

Exit interview – An exit always carries a fair chance of initiating the chain reaction among the employees. By analyzing the exiting reasons, the organization can overcome the justified ones in the future.

Employee satisfaction: A satisfied employee is a productive employee. The company must create a good and positive rapport for the company in the market outside.

Policy information: A policy should be designed in such a way that it holds good even after a long period of time. A frequent internal policy change sends a message to the outer world that the company is not consistent and reliable.

Customer orientation: Customers are always the most important factors in business activities. The workforce should always be motivated towards delivery of customers' perceived requirements

Employee participation: Always try to ensure the maximum participation from the employee side, either in terms of internal events participation or external events.

Trained employees: The organization should impart proper training of employees before they are engaged in work. The training should be in all the aspects like policies, vision, mission and activities of the organization. This will project a good picture of organization on the new employee.

India Employment survey 2006

The employment branding survey by Hewitt associates and Accor services covered 105 IT/TES organisations. This is the first time that a survey focused solely on employer branding has been conducted in the country; the survey had a healthy mix of large, small and medium organizations across the country with a majority of the companies having operations in India for

more than 3 years. Employees of over 80differnt IT/TES organisations participated in the online employer branding poll hosted on the NASSCOM website.

Main findings:

1) You need an employer brand when you already have a strong organization/customer brand. 85% of surveyed managers feel that employer branding will become more important in the future.
2) Only 38% of managers strongly agree that their organization has the right employer brand to attract the talent they need.
3) The employer brand needs to be aligned to the customer brand. 92% of managers feel that their employer brand is aligned to their organization brand.
4) They key to successful employer branding is collaboration. Although HR is primarily responsible, contribution from other departments like marketing and corporate communications is crucial for the success of employer branding work.
5) Employers feel Company's success and reputation in the market, Career progression and Compensation are the Top 3 aspects of employer branding.
6) Employees feel that Compensation, Career progression and Nature of work are the Top 3 aspects of employer branding.

Employer branding on Indian companies

According to global employer branding firm Universum's global talent attraction index "The World's Most Attractive Employers 2012", Google has retained the top position in both categories -- business and engineering -- for the fourth year in a row. "The Google fever is still hot! Students are attracted by Google's relaxed and creative work environment, international atmosphere and innovative products. Google offers great benefits and opportunities that are hard for other companies to match," Universum's CEO Petter Nylander said in a statement.

The employer–employee relationships have undergone a sea change over the past few decades in India. A successful strategy in employer branding can have a good impact in increasing the number and quality of applicants. Indian companies are also not for behind in employer branding. Companies like Infosys, TCS, Tata Steel, CEAT figuring prominently in establishing their brand as a best place for working and also attracting the best talents across the world. One can safely surmise that wooing talent is the new battle to be fought. This can happen only when there is a perception that their workplace is attractive.

Infosys

When organizations are debating on the strategic importance of their human resources, Infosys recognizes that the key role of its human assets can sustain and increase its competitiveness. To achieve this objective, Infosys has developed an innovative workforce – management strategy – the Global Talent Program. In this the companies recruits candidates from campuses outside India and develop the skills of a global workforce through training assignments in India then deploy them in their home countries. Increased profitability, reduced cost, increased market share, improved customer service, higher stock value, increased productivity and higher retention rates led to the winning the Optimas Award in the GLOBAL outlook category for 2007. In addition to this, to meet the global challenges Infosys introduced a wide variety of programs that provides the best aspects of universities but with professionalism that a workplace required. Business today and its partner Mercer Human Resource Consulting rated Infosys the Best Company to Work for In India" in 2006, based on employee satisfaction, perceptions of key stakeholders, and HR processes and policies

Tata Consultancy Services (TCS)

The work environment in TCS is built around the belief of growth beyond boundaries. Some of the critical elements that define the work culture of TCS are global exposure, cross domain experience, and work life balance. The TCS employer brand positioning communicates that TCS as an organization that offers its employees a complete Global IT Career by highlighting the three main value propositions: (a) Global exposure: This means working on world class projects on a global scale and exploring cutting edge technologies, fresh out of the world renowned research labs. (b) Freedom to work: TCS has established an environment that focuses on individual aptitude, talent, and interests. It provides the employees with opportunities to function across different industry verticals, service practices, and functional domains as well as varied technology platforms. (c) Work life balance: It has introduced many programs as per the needs and aspirations of the employees while retaining fun as a key element. The company understands the need of an increased flexibility in order to navigate the different spheres of life balance.

Tata Steel

India's oldest and most respected corporate brand 'TATA' at present stands 65th in the world brand valuation league as per Brand Finance Global 500 March 2010 report. Tata has many different markets and many different types of customers. However, customer's images of Tata brand are remarkably similar. Indian consumers see Tata brand as trustworthy, safe and reliable. The company has always developed a reputation as an exciting place to work in. The Tata Steel group believes that people are its key assets and value creation for the company depends principally on their professional and personal wellbeing. Adhering to the adage "successful individuals create a successful team", for these initiatives, Asia's Best Employer Brand Awards 2010 conferred the title 'CEO with HR Orientation' on HM Nerurkar, managing director, Tata Steel. Additionally, the 'HR Leadership Award' was also conferred on Radhakrishnan Nair, chief human resource office (CHRO).

CEAT Tyres

CEAT Tyres, the flagship company of RPG Enterprises, was established in 1958. Today, CEAT is one of India's leading tyre manufacturers and has a strong presence in both domestic & international markets. The company emerges as one of the best employer brand amongst the Indian tyre companies. Employer Branding Institute Australia awarded the company seven awards. CEAT, the only tyre company from the western region received awards in 2009 in the following seven categories: Best HR strategy in line with business , (ii) Talent management (iii) Innovative retention strategy, (iv) Continuous of HR Strategy at work, (v) Innovation in career development , (vi) Excellence in training, (vii) Excellence in HR through technology.

Indian CSR Initiatives and Brand Recognition

Traditionally, companies in India have had philanthropic and community programs. As Indian organizations move into the international marketplace, it is imperative to integrate CSR into the company business goals. Author Sanjay Agarwal points out in his book that, "As Indian companies grow global […] coupled with socioeconomic and regulatory pressures […] there is a shift from corporate philanthropy to corporate social investment (CSI)" (CSI is the Indian term to describe an organization's investment in a range of community activities). The trend for Indian businesses to focus on CSR initiatives—both to build the brand and to stand out among other organizations—has increased in the past five to six years. The growing awareness of CSR as a socially responsible business practice can be observed in some multinational corporations operating in India. In the Indian context, CSR has been found to increase the ability to attract and retain employees.

Conclusion

In the recent years, the world has witnessed the dramatic entrance and success of Indian corporations in the global marketplace. The opportunities for India to contribute to the world economy have significantly increased, with the likelihood of favorable outcomes for "Brand India" in the domestic and international markets. An effective employer brand is essential for gaining competitive advantage. The increasing focus on competitive advantage is leading many Indian firms to rethink their employer brands. A powerful employer brand has the capacity to attract and retain talent and represent quality to its customers, with the goal of gaining global recognition in a sustainable manner. The right kind of employer branding has also plenty of advantages as it provides a personality to the company and helps structure recruitment. It pulls in the right kind of candidates and spells out the company's expectations from them right at the beginning. Most importantly, it ensures that the best employees stay on longer, thus allowing the company to carry on its operations smoothly.

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Ananthropological Study on Nutritional Profile of Dalit Women in Puducherry

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Abstract

The aim of present investigation was to examine the health and nutritional status, dietary intake patterns among 115 rural Dalit women of age group 21-50 above years in the village Kalittheerthalkuppam, at Mannadipet around Puducherry. A cross-sectional study was conducted using both qualitative and quantitative data-collection methods. The data was collected using a standard questionnaire, containing information on socio-economic status food/nutrient intake, observations and assessment of their general knowledge and awareness about health, nutrition and taken some anthropometric measurement. The mean BMI of 43.47% Dalit women was found to be <18.5 (chronic energy deficiency) i.e. underweight. The overall quality of food and nutrient intake was poor as the intake of all the food groups was found to be much lower than their RDAs. The mean energy and protein intake was found to be consuming much below the RDAs. Similarly, the intake of nutrients was also found to be inadequate particularly of vegetables and pulses which met only 97.39% and 80% of the RDAs, respectively. Dietary deficiencies were also reflected in their physiological processes like menstrual problems and pregnancy complications, before menopause etc. Efforts are needed to improve education and diet quality of Dalit women so that they may improve their health and nutritional profile reflected their condition.

Key words: Nutritional status, Rural women, Dalit women, Dietary pattern, Anthropometry

Introduction

Nutrition plays a major role in an individual's overall health. Psychological and physical health status is often dramatically impacted by the presence of malnutrition. Good nutrition is a basic component of health. It is of prime importance in the attainment of normal growth and development and in the maintenance of health throughout life. Nutrition is a determinant of health. A well balanced diet increases the body's resistance to infection, thus warding off a host of infections as well as helping the body fight existing infection. Depending on the nutrient in question, nutritional efficiency can manifest in an array of its orders like protein energy malnutrition, night blindness, and iodine deficiency disorders, anemia, and stunting, low body mass Index and low birth weight. Improper nutritional intake is also responsible for diseases like coronary heart disease, hypertension, non-insulin dependent diabetes mellitus and cancer, among others. (Kamalapur.M & Reddy.S. 2013) Even though, there are many studies related to nutritional condition of different population of India but as far as studies pertaining to Dalit is concerned there are a very limited studies and especially for Dalit women there are hardly any anthropological research is available which explain the health and nutritional feature in a holistic approach. So, the present study attempts to investigate the nutritional status of the Dalit women living in rural area of Puducherry.

Material and Method

The present study was cross-sectional and was conducted among 115 Dalit women living in the rural area of Puducherry. Their age group ranges from 21-50 above years. The Dalit women samples were randomly selected interviewed and measured using a standard questionnaire. Data on several anthropological aspects were collected like demography; health and nutritional status. Data was collected using both qualitative and quantitative data collection methods. Basic anthropometric

measurements such as like height, weight, mid upper arm circumferences were taken as per the guidelines suggested by Weiner and Lowrie (1981). Dietary data were collected using 24 hours recall method and nutritional status was assessed by Body Mass Index BMI & MUAC.

Results and Discussion

An anthropometric and nutritional analysis of the Dalit women was highlighted in this section of the paper. The data thus collected shows age group wise distribution of anthropometric measurements based on percentage, mean, standard deviation and also prevalence of CED based on BMI & MUAC.

Table. 1 Distribution of subject according to age group of the Dalit women in Puducherry

Age group	**No**	**%**
21-30	26	22.60
31-40	33	28.70
41-50	24	20.87
51-above	32	27.83
Total	115	100.00

Table 1 above shows that the maximum percentage of (28.70%) Dalit women were belonged to 31-40 years age group, followed by 51 above years (27.83%) and(20.87%). Minimum percentage of Dalit women belonged to 41-50 years age groups.

Table. 2. Distribution of subject according to Socio-economic profile of the Dalit women

s.no	**socio-economic variables**	**No. of respondent (%)**	
1.	**Type of house**		
	Thatched	51	44. 33
	Tiled	21	18.26
	RCC*	43	37.39
2.	**Type of family**		
	Nuclear family	103	89.56
	Joint family	2	1.73
	Broken family	10	8.69
3.	**Educational status**		
	Illiterate	30	26.08
	Up to secondary	59	51.30
	Up to higher secondary	20	17.39
	Postgraduate	6	5.21
4.	**Working status**		
	Working	60	52.17
	Non working	55	47.82

5.	**Monthly income(Rs)** 1000 – 1999 2000 – 2999 3000 – 3999 4000 – 4999 5000 – above	 08 05 14 18 15	 6.95 4.34 12.17 15.65 13.04
6.	**Food habits** Non-vegetarian vegetarian	 112 3	 98.00 2.00

***RCC –Reinforced Concrete Cement**

General information of the subjects shows that, out of 115 subjects selected in the age group of 21-50 above years of Dalit women of Puducherry , majority of Dalit women are living in the thatched houses (44.33%) followed by RCC house (37.39%), the maximum percent (89.56%) of Dalit women were belonged to nuclear family, and only (1.73%) of Dalit women were belonged to joint family. As per the educational status concern, maximum percentage (51.30%) of Dalit women were educated up to secondary level, nearly 26% of the Dalit women were illiterate. In the case of working status nearly 52.17% of the Dalit women were having as an agriculture work, private company job and few person were worked in private school teacher. Nearly 47.82 % of the Dalit women were not working, which means they are housewife. In case of monthly income, maximum (15.65%) earned Rs. 4000-4999 per month and minimum (4.34%) earned Rs.2000-2999 per month. And their food habit were mostly non-vegetarian

Table.3. Distribution of Dalit women according to illness suffered from disease

Illness suffered from disease	**No**	**%**
Fever	77	66.95
Cough	85	73.91
Dysentery	34	29.56
Dental carries	68	59.13
Stomach ache	84	73.04
Skin disease	44	38.26
Jaundice	10	18.26
Asthma	21	8.69
Ortho problem	44	38.26
Cardiac disease	36	31.30
Diabetic	34	29.56
Visual problem	13	11.30
Hearing problem	12	10.43

The maximum (73.91%) of Dalit women suffered from illness like cough, stomach ache (73.04%), fever (66.95%), dental carries (59.13) and minimum (8.69%) jaundice. However, (18.26%) of the Dalit women were suffering from asthma, Ortho problem (38.26%), cardiac disease (31.30%), diabetic (29.56%) visual problem (11.30%) and hearing problem (10.43%) . The main reasons behind

such a poor health condition have been analyzed to be the cause of poor nutrition, unhygienic living conditions, poor environment surrounding and awareness of disease.

Anthropometrical Measurements

Table . 4. Distribution of Dalit women according to weight (kg), height and mid arm circumference (cm)

Measurements	Age group(yrs)				
	21-30	31-40	41-50	51-above	Average
	Mean ±SD	Mean± SD	Mean± SD	Mean± SD	
Weight (kg)	58.2±7.3	59.2 ±7.7	62.1 ±8.8	61.5 ± 9.5	60.5€8.2
Height (cm)	156.9 ±4.4	153.8±3.5	156.0±4.5	155.5± 5.6	155.5€4.5
Mid upper arm circumference (cm)	27.1±2.3	28.7±2.7	29.0± 2.7	28.0± 3.2	28.2€2.7

Table 4. presents the mean & SD of body weight, height, and mid arm circumference among various categories of the Dalit women, Out of the 115 Dalit women were the maximum mean value & SD of body weight (62.1 kg±8.8) in case of Dalit women was found in age group 41-50 years and the minimum mean value & SD of body weight (58.2kg±7.3) was found in age group 21-30 years. However, Dalit women were found the maximum mean value & SD of height (156.9cm±4.4) in age group 21-30 years and Dalit women were found the minimum mean value & SD of height (153.8cm±3.5) in age group 31-40 years. Whereas, Dalit women were found maximum mean value & SD of mid upper arm circumference (29.0cm±2.7) in age group 41-50 years. Minimum mean value & SD of (27.1 cm) in case of Dalit women were found in age group 21-30 years.

The BMI was calculated following standard formula (kg/m2). Nutritional status (NS) was evaluated using both BMI and MUAC. The following cuts-off points were used to identify CED according to internationally accepted BMI guidelines. (WHO, 1995)

- CED: BMI <18.5
- Non-CED: BMI≥18.5

BMI	Class
<18.5	Chronic Energy Deficiency
18.5-25	Normal
25-30	Grade-I Obesity
>30	Grade-II Obesity

***Source: W.H.O. 2004**

Table . 5. Distribution of Dalit women according to Body Mass Index (BMI) categories

BMI	No. of Women	%
<18.5 (chronic energy deficiency)	50	43.47
18.5 -25 (Normal)	45	39.13
25-30 (Grade- I & II obesity)	20	17.38
Total	115	100.00

***BMI Source: W.H.O. 2004**

Nutritional status of Dalit women was assessed using Body Mass Index (BMI) Table. 4 shows the distribution of Dalit women in different BMI categories. It is based on Body Mass Index (BMI) classification of W.H.O.2004, maximum 50(43.47 %) of Dalit women had Chronic Energy Deficiency (CED) condition and 45(39.13%) of Dalit women had found normal condition of BMI. Minimum 20(17.38%) of dalit women had found Obesity (Grade I&II) condition of BMI. Body Mass index was used to assess the nutritional status of Dalit women as it is most commonly used index of obesity or overweight, underweight and normal weight.

Table. 6. Distribution of Dalit women according to estimating BMI category from mid upper arm circumference (MUAC)

	BMI<20kg/m2	**BMI>30kg/m2**
MUAC <23.5cm	65(56.52)	70(60.86)
MUAC>32.0 cm	50(43.47)	45(39.13)

Table. 6 show reveled that distribution of Dalit women according to estimating BMI category from mid upper arm circumference (MUAC) among the various categories of the Dalit women under study, BMI and MUAC are comparable in that they only identify people who are underweight or 'thin'. If the maximum value of BMI is less than <20 and MUAC value is less than<23.5cm (56.52%) had found as 'thin' among the Dalit women, minimum value of BMI is less than <20 and MUAC is more than >32.0 (43.47%) had found as 'not thin'. However, maximum value of MUAC is less than <23.5 and BMI value is more than >30 (60.86%) had found as 'thin', if minimum value of BMI is more than >30 and MUAC value is more than >32.0 (39.13%) had found 'not thin' categories among Dalit women.

Table .7 Nutritional status of Dalit women based on BMI and mid-upper arm circumference

Nutritional status	**Value**	**Percentage**
Chronic energy deficiency	BMI<18.5 kg/m2	43.47
Undernourished	MUAC<23.0cm	56.52
	MUAC >32.0 cm	43.47

Table. 7 above the prevalence of nutritional status of Dalit women based on BMI and mid-upper arm circumference, chronic energy deficiency (BMI<18.5) was found 43.47% and undernourished (MUAC<23.0 cm) was found 56.52% of Dalit women.

Food intake

Table. 8. Distribution of Dalit women according to Food Intake

Food(g)	**Less than RDA**		**RDA***	
	No	**%**	**Female**	**Male**
Cereals & Millets	85	73.91	360	480
Pulses	92	80.86	75	90
Milk & milk products (ml)	91	79.13	300	300
Vegetables	112	97.39	300	400

Fruits	85	77.71	100	100
Sugar & Jaggery	110	95,65	40	40
Fats & oils	30	26.08	35	35
Meat, Fish & Egg	20	17.39	30	30

***RDA source: ICMR (1998)**

The food frequency data of subjects computed as intake per day by number of respondent is summarized in Table.8.above indicate the food intake of Dalit women were comparison to Recommended Dietary Allowances (RDA). Higher percentage of dalit women (97.39%) were consumed inadequate amount of vegetables by RDA standards, similar observation was made for sugar & jaggery consumption also.

Similarly, higher percentage of Dalit women (80.86%) were consumed inadequate amount of pulses by RDA standards, similar observation was made for milk &milk product consumption also. Higher percentage of Dalit women (77.71%) were consumed inadequate amount of cereals & millets by RDA standards, similar observation was made for fruits consumption also. As a whole it has been found that Dalit women were consuming most of the important nutritive substances much below the average Recommended Dietary Allowances (RDA).

Discussion

Women are generally vulnerable to under nutrition especially during pregnancy and lactation where the food and nutrient requirement are more during this period. The demographic consequences of the lower status in women has formed expression in various form such as female infanticide, higher death rate for women compared to, lower sex ratio, lower literacy rate in female lower level of employment of women in the non-agricultural sector as compared to men ect., (Srivasan and Tara 1989). Health is a universally cherished goal. Health cannot be forced upon the people. It is a positive attribute of life and the organization of health services to all people is considered to be the key step towards development. (Srinivasan 1987).

Bisht et.al (2013) reported that out of 65 women Energy Deficiency (CDE) were found in 20.6% to be underweight 46% of women were normal, 12.7% women were at risk of overweight and 3.2% were Obesity. Joseph. et.al (2008) in a study found that the urban women from Tamil Nadu , who were normal 26.9%, overweight 34.8% and obesity 41.86% respectively. In other study find out in five tribal groups of women were 59.38% are under weight, 37.50 % are normal weight 2.44 % over weight and only 0.68 % was seen in obese. (Naidu, 2002) Body Mass index was used to assess the nutritional status of Dalit women as it is most commonly used index of obesity or overweight, underweight and normal weight. The waist-hip ratio differentiates the distribution of fat on the lower body and upper body. Similarly, the present study found out it is based on Body Mass Index (BMI) classification of W.H.O. 2000, 39.13% of Dalit women had normal BMI. Chronic Energy Deficiency (CED) was seen in 43.47% of Dalit women. Obesity (Grade I&II) was seen in 12.17 % and 5.21% of Dalit women.

The findings reveal that the Dalit women of rural village Kalitheerthalkuppam at Mannadipet commune in Puducherry district were highly undernourished as nearly 43.47% of the Dalit women. The present study reported 28.69% Dalit women as having height <153 cm and 22.60% having weight <58 kg. If <45 kg is taken as cutoff or weight than 22.0% of these women can be termed as low weight. This is quite high when compared to studies reported from other parts of India. In their study in rural Tamil Nadu, Samuel and Rao (1992) had found 14.1% as having height <145 cm and 37.3% as having weight <40 kg. Similarly Anderson (1989) reported 56.0% of women in Gujarat and 63.05 of women in Maharashtra as having weight <40 kg. In another study from Uttar Pradesh 54.6% mothers were found to have weight <40 kg and 31.3% mothers were found to have height <145cm

(Tripathi et al., 1987).

A study conducted by Verma *et al.* (2003) on 320 female subjects representing rural population of selected areas of district Shimla of Himachal Pradesh found that wheat and maize were the main cereals consumed by the respondents. Among pulses, black gram dal was most commonly consumed. Desi ghee was consumed in good amounts with almost every food preparation. Singh (2006) in his study conducted in Haryana revealed that milk intake was so poor that only 18 per cent reported taking milk daily, once in a week(43%) and majority had never taken during the lactation.

Rao and Balakrishna (2010) study found that food and nutrient intake of cereals and millets was 402 g and 365 g respectively in tribal and rural women. Except for other vegetables and roots and tubers, the intake of all the other foods was lower than the suggested level in both the area. The intake of income elastic foods such as milk, oils and fats was higher in rural than in tribal women, however the intake of cereals and millets was higher among tribal women. Dhobhal et.al. (2003) also reported the average intake of energy was lower than RDA among women of Uttarkashi. In similar case of present study found that higher percentage of Dalit women (80.86) are consumed inadequate amount of pulses by RDA standards, similar observation was made for milk and milk product consumption also. Similarly, maximum of Dalit women (77.71%) are consumed inadequate amount of cereals & millets by RDA standards; however vegetables and fruits consumption was lowest. As a whole it has been found that Dalit women were consuming most of the important nutritive substances much below the average of Recommended Dietary Allowances (RDA).

Nutritional status of the subject was revealed that majority of the Dalit women followed the regular pattern of three time meals a day where some the Dalit women were missed regular pattern of three meals of day. Most of subjects were non-vegetarian with few exceptions (3%) but the consumption of once or twice a week. Their staple food was rice and ragi. Consumption of vegetable and fruits were low which could be due to their poor socio-economic status

Conclusion

The result of the present study reveals the inadequate dietary intake, that instigate of poor economic conditions they control their food items from their available income. Still now, the dalit women's nutritional status is not an exceptional one. It has been observed that poor nutritional status is one of the most serious health problems, especially hidden during pregnancy and lactation period among Dalit women. Dalit women were particularly vulnerable to under nutrition compared to other women. The problem of poor nutritional status is cruelly influenced by poverty, illiteracy and unawareness concerning basic nutrients. To eradicate the problem of poor nutritional status, source of income generation should be improved, educational standard must be uplifted along with awareness regarding nutrients, daily allowances of low budget and local resources based balanced diet.

Hence there is a need to provide special attention to this group in improving their nutritional status by intervening appropriate health and nutrition programmes like nutrition education, iron supplementation and deforming both during adolescence and during adulthood.

Acknowledgement

It's our pleasure and responsibility to thank the Kalitheerthalkuppam Dalit women and their families for having been fully supportive to us in the process of data collection. With a very grateful heart, I thank my beloved husband Mr.E.Selvam and my families for their kind cooperation. I express my sincere gratitude to the staff members of Physical Anthropology Lab and faculty members of Anthropology Department, Pondicherry University, for their necessary assistance and valuable suggestions during this research. I thank UGC for awarding me RGNF fellowship during the course of my research work.

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Security Issues in Cloud Services

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Abstract:

Cloud Computing is a flexible, cost-effective, and proven delivery platform for providing business or consumer IT services over the Internet. However, cloud Computing presents an added level of risk because essential services are often outsourced to a third party, which makes it harder to maintain data security and privacy, support data and service availability, and demonstrate compliance. Cloud Computing leverages many technologies (SOA, virtualization, Web 2.0); it also inherits their security issues. The most important threats found in the literature related to Cloud Computing and its environment as well as to identify and relate vulnerabilities and threats with possible solutions.

Keywords:

Cloud computing Security, API model, Vulnerabilities Threats Counter measures

Introduction:

Enterprises are no longer sitting on their hands, wondering if they should risk migrating applications and data to the cloud. They're doing it - but security remains a serious concern. The first step in minimizing risk in the cloud is to identify the top security threats.

The shared, on-demand nature of cloud computing introduces the possibility of new security breaches that can erase any gains made by the switch to cloud technology. As noted in a CSA (Cloud Security Alliance) reports, cloud services by nature enable users to bypass organization-wide security policies and set up their own accounts in the service of shadow IT projects. New controls must be put in place.

"The 2016 Top Threats release mirrors the shifting ramification of poor cloud computing decisions up through the managerial ranks," said J.R. Santos, executive vice president of research for the CSA.

Following are important security thread

Data breaches

Cloud environments face many of the same threats as traditional corporate networks, but due to the vast amount of data stored on cloud servers, providers become an attractive target. The severity of potential damage tends to depend on the sensitivity of the data exposed. Exposed personal financial information tends to get the headlines, but breaches involving health information, trade secrets, and intellectual property can be more devastating.

When a data breach occurs, companies may incur fines, or they may face lawsuits or criminal charges. Breach investigations and customer notifications can rack up significant costs. Indirect effects, such as brand damage and loss of business, can impact organizations for years.

Compromised credentials and broken authentication

Data breaches and other attacks frequently result from lax authentication, weak passwords, and poor key or certificate management. Organizations often struggle with identity management as they try to allocate permissions appropriate to the user's job role. More important, they sometimes forget to remove user access when a job function changes or a user leaves the organization.

Multifactor authentication systems such as one-time passwords, phone-based authentication, and smartcards protect cloud services because they make it harder for attackers to log in with stolen

passwords. The Anthem breach, which exposed more than 80 million customer records, was the result of stolen user credentials.

Many developers make the mistake of embedding credentials and cryptographic keys in source code and leaving them in public-facing repositories such as GitHub. Keys need to be appropriately protected, and a well-secured public key infrastructure is necessary. They also need to be rotated periodically to make it harder for attackers to use keys they've obtained without authorization. Organizations planning to federate identity with a cloud provider need to understand the security measures the provider uses to protect the identity platform. Centralizing identity into a single repository has its risks. Organizations need to weigh the trade-off of the convenience of centralizing identity against the risk of having that repository become an extremely high-value target for attackers.

Hacked interfaces and APIs

Practically every cloud service and application now offers APIs. IT teams use interfaces and APIs to manage and interact with cloud services, including those that offer cloud provisioning, management, orchestration, and monitoring.

The security and availability of cloud services - from authentication and access control to encryption and activity monitoring - depend on the security of the API. Risk increases with third parties that rely on APIs and build on these interfaces, as organizations may need to expose more services and credentials. Weak interfaces and APIs expose organizations to security issues related to confidentiality, integrity, availability, and accountability.

APIs and interfaces tend to be the most exposed part of a system because they're usually accessible from the open Internet. It is recommends adequate controls as the "first line of defense and detection." Threat modeling applications and systems, including data flows and architecture/design, become important parts of the development lifecycle. It is also recommends security-focused code reviews and rigorous penetration testing.

Exploited system vulnerabilities

System vulnerabilities, or exploitable bugs in programs, are not new, but they've become a bigger problem with the advent of multi-tenancy in cloud computing. Organizations share memory, databases, and other resources in close proximity to one another, creating new attack surfaces.

Fortunately, attacks on system vulnerabilities can be mitigated with "basic IT processes". Best practices include regular vulnerability scanning, prompt patch management, and quick follow-up on reported system threats.

The costs of mitigating system vulnerabilities "are relatively small compared to other IT expenditures." The expense of putting IT processes in place to discover and repair vulnerabilities is small compared to the potential damage. Regulated industries need to patch as quickly as possible, preferably as part of an automated and recurring process. Change control processes that address emergency patching ensure that remediation activities are properly documented and reviewed by technical teams.

Account hijacking

Phishing, fraud, and software exploits are still successful, and cloud services add a new dimension to the threat because attackers can eavesdrop on activities, manipulate transactions, and modify data. Attackers may also be able to use the cloud application to launch other attacks.

Common defense-in-depth protection strategies can contain the damage incurred by a breach. Organizations should prohibit the sharing of account credentials between users and services, as well as enable multifactor authentication schemes where available. Accounts, even service accounts, should be monitored so that every transaction can be traced to a human owner. The key is to protect account credentials from being stolen.

Malicious insiders

The insider threat has many faces: a current or former employee, a system administrator, a contractor, or a business partner. The malicious agenda ranges from data theft to revenge. In a cloud scenario, a hell bent insider can destroy whole infrastructures or manipulate data. Systems that depend solely on the cloud service provider for security, such as encryption, are at greatest risk.

It is recommends that organizations control the encryption process and keys, segregating duties and minimizing access given to users. Effective logging, monitoring, and auditing administrator activities are also critical.

It's easy to misconstrue a bungling attempt to perform a routine job as "malicious" insider activity. An example would be an administrator who accidentally copies a sensitive customer database to a publicly accessible server. Proper training and management to prevent such mistakes becomes more critical in the cloud, due to greater potential exposure.

The APT parasite

It is advanced persistent threats (APTs) “parasitical” forms of attack. APTs infiltrate systems to establish a foothold, then stealthily exfiltrate data and intellectual property over an extended period of time.

APTs typically move laterally through the network and blend in with normal traffic, so they're difficult to detect. The major cloud providers apply advanced techniques to prevent APTs from infiltrating their infrastructure, but customers need to be as diligent in detecting APT compromises in cloud accounts as they would in on-premises systems.

Common points of entry include spear phishing; direct attacks, USB drives preloaded with malware, and compromised third-party networks. In particular, recommends training users to recognize phishing techniques.

Regularly reinforced awareness programs keep users alert and less likely to be tricked into letting an APT into the network -- and IT departments need to stay informed of the latest advanced attacks. Advanced security controls, process management, incident response plans, and IT staff training all lead to increased security budgets. Organizations should weigh these costs against the potential economic damage inflicted by successful APT attacks.

Permanent data loss

As the cloud has matured, reports of permanent data loss due to provider error have become extremely rare. But malicious hackers have been known to permanently delete cloud data to harm businesses, and cloud data centers are as vulnerable to natural disasters as any facility.

Cloud providers recommend distributing data and applications across multiple zones for added protection. Adequate data backup measures are essential, as well as adhering to best practices in business continuity and disaster recovery. Daily data backup and off-site storage remain important with cloud environments.

The burden of preventing data loss is not all on the cloud service provider. If a customer encrypts data before uploading it to the cloud, then that customer must be careful to protect the encryption key. Once the key is lost, so is the data.

Compliance policies often stipulate how long organizations must retain audit records and other documents. Losing such data may have serious regulatory consequences. The new EU data protection rules also treat data destruction and corruption of personal data as data breaches requiring appropriate notification. Know the rules to avoid getting in trouble.

Inadequate diligence

Organizations that embrace the cloud without fully understanding the environment and its associated risks may encounter a “myriad of commercial, financial, technical, legal, and compliance risks”. Due diligence applies whether the organization is trying to migrate to the cloud or merging (or

working) with another company in the cloud. For example, organizations that fail to scrutinize a contract may not be aware of the provider's liability in case of data loss or breach.

Operational and architectural issues arise if a company's development team lacks familiarity with cloud technologies as apps are deployed to a particular cloud. Organizations they must perform extensive due diligence to understand the risks they assume when they subscribe to each cloud service.

Cloud service abuses

Cloud services can be commandeered to support nefarious activities, such as using cloud computing resources to break an encryption key in order to launch an attack. Other examples including launching DDoS attacks, sending spam and phishing emails, and hosting malicious content.

Providers need to recognize types of abuse - such as scrutinizing traffic to recognize DDoS attacks - and offer tools for customers to monitor the health of their cloud environments. Customers should make sure providers offer a mechanism for reporting abuse. Although customers may not be direct prey for malicious actions, cloud service abuse can still result in service availability issues and data loss.

DoS attacks

DoS attacks have been around for years, but they have gained prominence again thanks to cloud computing because they often affect availability. Systems may slow to a crawl or simply time out. "Experiencing a denial-of-service attack is like being caught in rush-hour traffic gridlock; there is one way to get to your destination and there is nothing you can do about it except sit and wait," the report said.

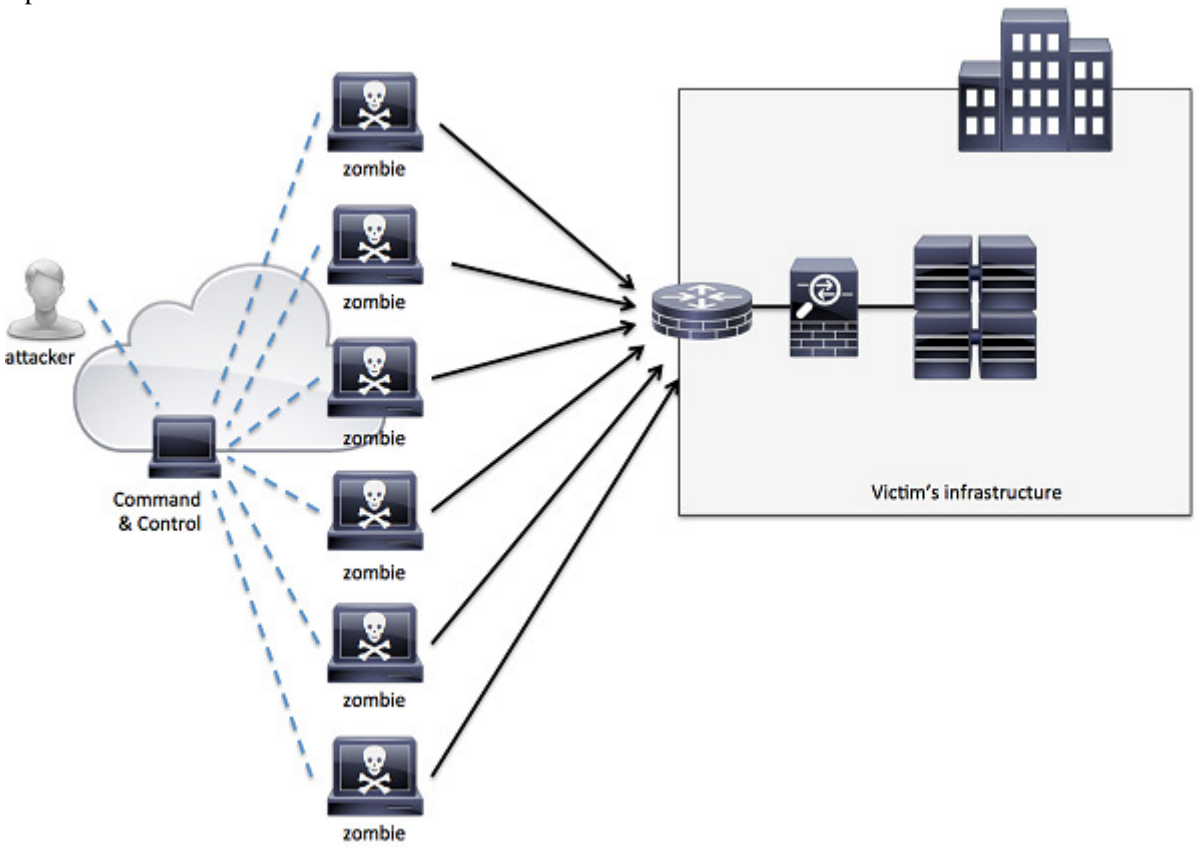

Figure I DoS attack

DoS attacks consume large amounts of processing power, a bill the customer may ultimately have to pay. While high-volume DDoS attacks are very common, organizations should be aware of asymmetric, application-level DoS attacks, which target Web server and database vulnerabilities. Cloud providers tend to be better poised to handle DoS attacks than their customers. The key is to have a plan to mitigate the attack before it occurs, so administrators have access to those resources when they need them.

Shared technology, shared dangers

Vulnerabilities in shared technology pose a significant threat to cloud computing. Cloud service providers share infrastructure, platforms, and applications, and if a vulnerability arises in any of these layers, it affects everyone. "A single vulnerability or mis-configuration can lead to a compromise across an entire provider's cloud".

If an integral component gets compromised - say, a hypervisor, a shared platform component, or an application - it exposes the entire environment to potential compromise and breach. It is recommended a defense-in-depth strategy, including multifactor authentication on all hosts, host-based and network-based intrusion detection systems, applying the concept of least privilege, network segmentation, and patching shared resources.

Conclusion:

Cloud providers typically deploy security controls to protect their environments, but ultimately, organizations are responsible for protecting their own data in the cloud. It is recommended organizations use multifactor authentication and encryption to protect against data breaches.

Security services can be used in an enterprise-virtualized environment to establish protected zones in an otherwise open environment. This means that the virtual security gateway is used in an enterprise virtual datacenter in order to establish security zones for different areas of the virtual network, which contains information of different security classifications.

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Academic Stress of Medical Students: A Comparative Study between Thai and Indian Students

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Abstract

The present study deals with the comparison of Academic stress of Indian and Thai medical students by using Gadzella's Life Stress Inventory (B. M. Gadzella, 1991). Five categories of academic stressors namely frustrations, conflicts, pressures, changes, and self-imposed and four categories describing reactions to these stressors like physiological, emotional, behavioral, and cognitive were comprised. The sample consisted of 250 Indian medical students and 250 Thai medical students were selected for the study. The result reveals that significant difference of Academic stress was found between Indian and Thai medical students (t=<.05). In order to find out the differences of five categories of academic stressors between Indian and Thai medical students separately; significant differences were found in academic stress with respect to Frustration (t=<.05), conflict (t=<.05) and Changes (t= <.05.) between Indian and Thai medical students. However, insignificant differences were found in Pressure (t=1.89.) and Self imposed (t=1.78.) between Indian and Thai medical students. While comparing reaction to stressors, the result reveals that insignificant difference of Reactions to stressors was found between Indian and Thai medical students (t=.009). In order to find out the differences of four categories of Reactions to stressors between Indian and Thai medical students; only significant differences was found in of Physiological Reactions to stressors (t=P<.05,), However No significant differences were found in emotional Reactions to stressors Behavioral Reactions to stressors, and cognitive Reactions to stressors between Indian and Thai medical students. The Indian medical students were more suffered from the academic stress.

Introduction

A place in medical college or university in several countries is very highly stressful. Academic stress among and mental health on medical students has been a topic of interest for many years .Academic stress is mental and emotional pressure, tension, or stress that occurs due to the demands of college life (DeDeyn,2008). Medical students are exposed to diverse varieties of stress. Currently there are lots of discussions regarding stress of medical students because mental health ensures total health (WHO, 2003). A number of studies emphasis on the quality of life of medical students which will ensure quality of medical education and henceforth better prescriber on basis of rational use of medicine for this earth (Vitaliano et al., 1984; Guthrie et al., 1995; Firth, 1986). High levels of stress may have a negative effect on mastery of the academic curriculum. Stress, health and emotional problems increase during the period of undergraduate medical education. This can lead to mental distress and has a negative impact on cognitive functioning and learning (Dahlin, Joneborg & Runeson 2005).Medical students are predominantly suffers from stress during their study period as because of academic pressure, classicist criteria and tough nature of medical practice which requires involvement with human suffering, death, sexuality and fear (Shah and Trivedi, 2009; Abdulghani et al., 2011; Rosal et al., 1997; Stewart et al., 1999; Wilkinsos et al., 2006). Stress also lead to poor physical health, mental distress, reduce students' self-esteem and have a negative effect on cognitive functioning and learning of students in the medical school (Dyrbye et al., 2006; Velayudhan et al., 2010; Fish and Nies 1996; Chew-Graham et al., 2003; Saipanish, 2003). Multiple researches reported that stress damages mental health. Therefore causes anxiety and depression in medical students not only in advance countries (Rosal et al., 1997; Vitaliano et al., 1984; Vitaliano et al., 1989; Murphy et al., 1984; Bramness et al., 1991; Firth-Cozens et al., 1989; Peterlini et al., 2002) but also developing countries (Stewart et al., 1995; Stewart et al., 1997).Medical students are exposed to diverse varieties of stress. It

is reported during medical education. Sometime stress arises from compulsion to succeed and also in difficulties of integrating education system (Singh et al., 2010; Inam et al., 2003). Stress of medical students is mainly due to curricular overload but not due to personal difficulties (Kaufman et al., 1998). It is because of demanding, intense environment of medical education has created excessive pressure on medical students (Yusoff, 2013). There are number of reports available indicates that medical school's environment is not congenial and friendly to enhance psychological and physical health of students (Guthrie et al., 1998; Given et al., 2002). There is a scarcity of research reports on academic stress and of medical students and require a very extensive effort. The effort made by the investigator, can prove very useful for reduce academic stress and improve mental health.

Limitations

Results of this study are limited by a relatively small preliminary survey of self-reported academic stress rather than a study of actual behavior, which would be very difficult to achieve. As such, participants may have answered questions in a socially desirable manner to avoid the stigma associated with admitting personal inadequacies. A limitation of this study is that it reflects the findings of some medical college; the data was collected in selected medical colleges from both countries hence, the results may not be generalized to other institutions in the both countries. Perceived stress was self-reported by medical students of both Nations and that may have resulted in some reporting bias. To keep the student data-collection time within reasonable limits, information on Academic stress self-reported and no special psychometric instruments were used to measure it. Future research is warranted on estimating the level of stress by psychometric instruments and the compare between stress Study also compared the whole data not a fragment i.e. year wise medical students. Future studies should be proactive in maintaining a balance of participants on the basis of year wise medical students.

Methods

This study is part of Bilateral Cultural Exchange Programme of Indian Council of Social Science Research and National Research Council of Thailand. The data was collected during the visit of Thailand of the investigator from 5-21 fub-2012 with the help of National Research Council of Thailand and Indian study center from five medical colleges of Thailand. The data was collected from 318 medical students but after screening 280 medical students selected for data analysis. In India, data was collected individually through questionnaires from the 300 hundred medical students from the student of MGM Medical College Aurangabad, Medical College Latur , Shankarao Chavan Medical College Nanded, Government Medical college Akola and Punjab Rao Deshmukh Medical college Amravati after screening 280 medical students selected for the study. The data was checked for accuracy and completeness and was coded and put-up into the SPSS. Descriptive statistics for all studied variables, percentage mean, standard deviation and t-ratio was considered statistically technique throughout the study and the level of significant was set-up at 0.05 level. For measure the academic stress, Gadzella's (1991) Students-life Stress Inventory was used. It was compose of 51 items to be divided into two major sections: types of stressors and reactions to stressors. The type of stressors section was including both personal and academic stressors and is divided into the following five categories: frustrations, conflicts, pressures, changes, and self-imposed. The reactions to stressors section was comprise of the following four categories: physiological, emotional, behavioral, and cognitive. Participants respond to a five-point scale using 1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time. The demographic information about Gender, age, daily smoking, drug use, etc. was obtained before seeking responses.

Analysis and Interpretation

The results and discussion have been presented in concise and comprehensive manner that is easy to comprehend starting with selected physical parameter.

As the primary aim of the study was to compare the academic stress of medical students with the help of t-ratio

The results concerning this are presented in the form of tables. For the sake of convenience and methodical presentation of the results, following order has been adopted.

Table – 1

Personal Characteristics of medical students between Indian and Thai students

Sr. No.	Personal characteristics	Medical Students	
		Indian	Thai
1)	Daily Physical Exercise	51.78 %	72.50%
2)	Use of Internet	100.00%	100%
3)	Daily smoking	20.71%	15.35%

Table-1 indicates the percentage of personal characteristics of Indian and Thai medical students. The result revealed that,51.78% Indian medical students engaged in daily physical exercise/sporting activity, whereas 72.50% Thai medical students engaged in daily physical exercise. 100.00% Indian and Thai medical students used internet. 20.71% Indian medical students reported that they have smoked, while 15.35% Thai medical students reported that they have smoked.

Table-2

Mean Scores, Standard Deviation and t-ratio of the academic stressors between Indian and Thai Medical students.

Dimension	Medical Students	Number	Mean	S.Ds.	t-ratio
Frustration	Indian students	280	15.44	4.24	7.06*
	Thai students	280	13.11	3.45	
Conflicts	Indian students	280	11.87	2.11	10.94*
	Thai students	280	10.01	2.07	
Pressure	Indian students	280	10.17	2.33	
	Thai students	280	09.67	1.97	1.89NS
Changes	Indian students	280	09.23	1.99	
	Thai students	280	9.65	1.81	2.63*
Self imposed	Indian students	280	15.09	3.40	1.78NS
	Thai students	280	14.61	3.22	
Academic Stressors	Indian students	280	61.72	14.60	8.68*
	Thai students	280	56.72	12.60	

Table 2 depicted Mean Scores, Standard Deviation and t-ratio of the academic stressors along with its five categories between Indian and Thai Medical students. The result given in Table 2 reveals that significant difference of Academic stress was found between Indian and Thai medical students (t=8.68,<.05). In order to find out the differences of five categories of academic stressors between Indian and Thai medical students; t-ratio was computed for each category separately. The result reveals that significant differences were found in academic stress with respect to Frustration (t=7.06,<.05) , conflict (t=10.94,<.05) and Changes (t=2.63 ,<.05.) between Indian and Thai medical students. However, insignificant differences were found in Pressure (t=1.89.) and Self imposed (t=1.78.) between Indian and Thai medical students.

Table-3

Mean Scores, Standard Deviation and t-ratio of Reactions to Stressors of Indian and Thai medical students.

Dimension	Medical students	Number	Mean	S.Ds.	t-ratio
Physiological,	Indian students	280	32.42	5.92	2.33*
	Thai students	280	31.23	6.33	
Emotional,	Indian students	280	12.45	2.84	0.44NS
	Thai students	280	12.34	3.55	
Behavioral,	Indian students	280	12.99	2.99	1.75NS
	Thai students	280	12.50	3.68	
Cognitive	Indian students	280	4.51	0.98	0.93NS
	Thai students	280	4.59	1.12	
Reaction to stressor	Indian students	280	63.50	12.79	0.009
	Thai students	280	60.74	14.69	

* Significant at .05 level.

Table 3 depicted Mean Scores, Standard Deviation and t-ratio of the Reactions to stressors along with its four categories between Indian and Thai Medical students. The result given in Table 3 reveals that insignificant difference of Reactions to stressors was found between Indian and Thai medical students (t=.009). In order to find out the differences of four categories of Reactions to stressors between Indian and Thai medical students; t-ratio was computed for each category separately. The result reveals that only significant differences was found in of Physiological Reactions to stressors (t=2.33,), However No significant differences were found in emotional Reactions to stressors (t=0.44) Behavioral Reactions to stressors (t=1.75) , and cognitive Reactions to stressors (t=0.93) between Indian and Thai medical students.

Discussion

The aim of the study was to determine the academic stress of Thai and Indian Medical students. The study found that Smoking was much more common in the Indian medical students as compared than their counterparts. Thai medical students more time spent in exercise and physical activities. Although Indian and Thai medical students may encounter common stressors in college, perceptions of what are considered as academic stressors may differ The research findings showed that there was significant difference of academic stressors was found between Indian and Thai students. Indian Medical students was found to have got more suffer from academic stressors as compared than Thai medical students . Academic stressors include the student's perception of the extensive knowledge base required and the perception of inadequate time to develop it (Carveth, Geese, & Moss, 1996). Students report experiencing academic stress predictably, with the greatest sources of academic stress being found in taking and studying for exams and with respect to grade competition and the large amount of content to master in a small amount of time (Abouserie, 1994; Kohn & Frazer, 1986). The more academic stressors of Indian medical students this may be due to the Medical students in India have a more insecure position after graduation, where residency positions are gained in competition, and students may take unpaid auscultation positions at hospitals or wards to gain credits, personal factors such as staying away from family, adjustment to unfavorable hostel conditions, parental expectations, etc (.Nandi et.al. 2012, Balakrishnan 2004),. In addition, there is a situation of unemployment among physicians in India. In Thailand, by contrast, there is a shortage of physicians; all medical students of Thailand can feel confident that they will be employed and the education is well regulated, as are salaries. The high level of academic stressors of Indian medical students may be also due to the Indian medical students share common academic stressors such as family-related pressures, scholarship requirements, financial burdens, competition in class, and course-related stress increased load towards exam, vast syllabus, not getting expected marks, less time for repeated learning

and procrastination (Solanke et.al. 2012, Shah and Trivedi, 2009). In fact, perceptions of academic stress and coping strategies might differ across cultures. Hence, Indian and Thai medical students may differ in their perceptions to academic stressors. While comparing the differences of five categories of academic stressors between Indian and Thai medical students significant differences were found in academic stress with respect to Frustration (t= <.05) , conflict (t= <.05) and Changes (t= <.05.) between Indian and Thai medical students. Indian medical students more frustrated and conflicted then Thai medical students this may be due to the daily hassles to reach goals, lack of resources available (e.g., money for books, automobile), failures to accomplish goals, feelings of being a social outcast, dating problems, and denied opportunities in spite of one's qualifications, diverse cultural, social, religious, and political backgrounds (Solanke et.al. 2012, Shah and Trivedi, 2009; Singh et al., 2004, Singh 2010) . However, Indian students incur significantly less changes .Changes subscale assesses academic stress that is due to life changes and includes changes that are disruptive to the respondent's life. This study also supported that Shah and Trivedi, 2009; Singh et al., 2004 found that `Medical students in India are predominantly suffers from stress during their course as because of more academic pressure, classicist criteria and tough nature of medical practice which requires involvement with human suffering, death, sexuality and fear. Singh (2010) reported that medical education stress is related to academic, financial and social factors. Sometime stress arises from compulsion to succeed and also in difficulties of integrating education system in India. The findings of the research also conformity with Dalal and Bala (2013) also found stress is common in medical schools of India . The overall prevalence of stress was high (23.7%) among students. In another study conducted in Manipal by Abraham et al, prevalence of stress was 37.3%.. This research also agreed with Jain and Bansal (2012) investigated High levels of stress and burnouts have been documented among medical students in India (Patiala). The result reveals that insignificant difference of reaction to stressors was found between Indian and Thai students. only significant differences was found in of Physiological Reactions to stressors Reactions to stressors refer to the state of physical or psychological arousal that usually results from the perception of stress (Thoits, 1995). Students experience physical and physiological reactions to stressors when they perceive excessive or negative stress. Excessive stress induces physical impairments, and it is not uncommon to find students afflicted with persistent lack of energy, loss of appetite, headaches, or gastrointestinal problems (Winkelman, 1994).

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Smart Cities : Challenges to Urban Governance in India

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Abstract

Urbanization is most predominant and contemporary process prevalent throughout the globe especially in developing countries like India. India is urbanising at an unprecedented rate, so much that estimates suggest that 600 millions of Indians will be living in cities by 2030. To sustain the brisk growth rate of economy and to tackle the problems arising due to the growth, an integrated approach and sustainable strategy is required. Government need smart planning to meet the growing challenges of urbanisation. The announcement of 100 smart cities falls in line with the new vision.

This paper attempts to analyze the government's proposal for development of the 100 smart cities throughout the country. The analysis indicates that the cities are expanding and new cities are being formed mainly by transformation. But these cities lack basic infrastructural services due to various reasons ranging from lack in service delivery mechanism to lack of investment, and to some extent changing lifestyle, etc. In the urbanising world, the increasing power of the businesses owning to huge economic profits has brought them to the centre stage of socio-political domains, along with their enjoying a powerful economic status.

Thus the paper will focus on the role and challenges before the urban governance in developing smart cities and how these challenges will be met through collaborations, partnerships and citizen's participation.

Keywords: Urbanization, smart cities, basic services, collaborations.

Introduction:

Urban India has seen many changes in the last few decades. Change are noted even in the working and focus of national, state and local governments. There is a gradual withdrawal of active state government involvement in urban politics and development.. The liberalization of the economy has also opened up avenues of interaction and participation that were earlier inaccessible. Private sector participation has increased significantly in areas that were formerly under the purview of governmental agencies including infrastructure, water, and sanitation.

India is urbanizing at an unprecedented rate, so much that estimates suggest nearly 600 million of Indians will be living in cities by 2030, up from 290 million as reported in the 2001 census. Today's city face significant challenges – increasing populations, environmental and regulatory requirements, declining tax bases and budgets and increased costs. Moreover, the cost of Information and Communication Technologies has plunged making it economical for the government to implement them. Across the world and in India as well, the idea begins with using digital technology to make a city more efficient and to improve wellbeing Citizens are increasingly getting instant, anywhere, anytime, personalized access to information and services via mobile devices and computers. And they increasingly expect that same kind of access to basic services. This has led resilience to development of Smart cities to cope up the growing demands. The desire to achieve 'Smart city' status is also evident in emerging urban policy; prompting them to collaborate with business community.

Objectives of the study:

In this background the objectives in this paper is primarily to examine prospects of Smart Cities in India and the challenges of Urban Governance.

1. To examine the growing challenges of urbanization in cities.
2. To analyze the government's proposal for development of the 100 smart cities throughout the country and challenges thereof.

3. To emphasis on the Collaborative Governance in development of smart cities.

Hypotheses of the study:

It is hypothesed that Urbanization leads to growth of slum population, degradation in health, quality of life and inequitable distribution of basic amenities .The expectations of people for basic services are rising and the State has failed to meet the expectations of the people. Now with the help of business groups, States are venturing into Smart cities. However there are various challenges ahead in the development of Smart Cities.

Methodology:

The research paper is based on data collected from secondary sources which include Books, journals, articles, various publications by government agencies as well as non-governmental organizations / bodies.

Operational Definitions:

Wikipedia defines Smart Cities as "an emerging conceptual view of a city that promotes the use of Information and Communication Technologies (ICTs) to engage with citizens to develop social capital and intellectual capital, to make better use of hard infrastructure (physical capital), reduce usage of environmental capital and support smart growth (sustainable economic development).''

Smart city means the smart development, use and maintenance of resources in a sustainable manner without posing a threat to the environment and using advanced technology. It encompasses a vision of an urban space that is ecologically friendly, technologically integrated and meticulously planned, with a particular reliance on the use of IT to improve efficiency.

In ideal terms, a working definition may be that a 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability. It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents. There are many technological platforms involved, including but not limited to automated sensor networks and data centres'. Though this may sound futuristic, it is now likely to become a reality as the 'smart cities' movement progresses in India. In a smart city, economic development and activity is sustainable and rationally incremental by virtue of being based on success-oriented market drivers such as supply and demand. However, there is no strict definition of a 'smart city'.

Government Initiative:

There are many complexity created to urban government with decentralisation and increased financial constraint. This has resulted into development of privatised services utilising both for-profit and non-profit organisations. The concern for 'governance' emerges in a range of policy areas: economic development, better civic facilities, human capital and training programmes, environmental protection, etc.

Lack of political will and administrative leadership and a growing gap in urban service provision have created a political vacuum in Indian cities. The liberalization of the economy has also opened up avenues of interaction and participation that were earlier inaccessible. This has led to urban stakeholders such as business leaders, landowners etc from 'corporate' and 'local' economies (Benjamin, 2000) to create 'participatory spaces' (Sridharan, 2008: 293) in which to act. Taking advantage of this political vacuum, urban stakeholders use their social and political networks to form coalitions that are often temporary, short-term in nature, with a particular goal in mind. Rapid growth in the Indian urban population has been accompanied by demands for improved infrastructure, better governance and a growing need for better services like water, sanitation etc. As a result, the Indian government has begun to encourage large-scale involvement of the private sector, domestic and international, in various aspects of urban development. Private sector participation has increased significantly in areas that were formerly

under the purview of governmental agencies including infrastructure, water, and sanitation particularly since 2005. . Now with the help of business groups, States are venturing into new projects like developing Smart Cities. Corporate Social Responsibility has brought the business class ahead voluntarily into social concerns. However there are various challenges ahead.

India plans 100 new smart cities and will develop modern satellite towns around exiting cities under the smart city program. Government of India has allocated app. Rs. 70 billion for Smart Cities in budget 2014-15. In Maharashtra, the state government is also planning in the same line. The Fadnavis government had asked Cidco, the creator of Navi Mumbai, to put up a Smart City that could serve as a model for the other states. This resulted into creation of Cidco Navi Mumbai South, a brown field project encompassing 7 existing nodes. It is viewed that nearly 20 lakhs residents of the smart city could take up the 8.4 lakh jobs that will be created thanks to the mega infrastructure projects and enjoy a better quality of life, thanks to the smart planning for the city. All the projects are expected to be completed over the next 7 years.

A similar project of Smart city is planned in Kalyan- Dombivli city. Hon'ble Chief Minister Devendra Fadnavis has announced his government's decision that Kalyan-Dombivli would be developed into a smart and safe city. The city of Kalyan-Dombivli is an important township. It is fast emerging industrial belt in Mumbai. Kalyan-Dombivli forms a part of the Mumbai Metropolitan Region (MMR) .The economic activities have contributed largely to the growth of Kalyan-Dombivli. Kalyan-Dombivli is one of the important agglomerations in the state of Maharashtra. It is considered as the faster growing and developing area of Mumbai. The primary agency for urban governance in Kalyan-Dombivli is the Kalyan-Dombivli Municipal Corporation (KDMC). It is responsible for the civic infrastructure and administration of the city of Kalyan-Dombivli. KDMC is tackling civic issues and providing service delivery.

Further, the Kalyan- Dombivli Municipal Corporation (KDMC) polls for 122 seats will determine the political might of the BJP which was voted to power in Maharashtra in October, 2014. At present, the KDMC is controlled by the Shiv Sena-BJP alliance. The Centre's funds for developing smart cities would be used to build state-of-the-art infrastructure complete with facilities resolving the problems of drinking water and other basic amenities in 27 villages in the periphery.

The paper will highlight the challenges of Urban Governance in implementations of Smart city Project in India in general and KDMC in particular..Local government is trying to replace the current top-down approach by a process that is interactive and a dynamic process that is built on partnership and collaboration between the public and private institutions in the society. As a corollary and collateral to these changes, especially at the local level, what is evolving is a new kind of 'network' or 'partnership' governance, what has been termed 'collaborative governance' approach or 'public- private partnership' approach. The urban governance need to collaborate with business groups to bring into reality the concept of Smart cities.

Challenges ahead:

The concept of smart cities has its challenges, especially in India, which are as follows.

Funds:

Growing competition between cities for investment and the role of business interests in local decision making have increasingly shaped the urban terrain. Decentralisation and shifting responsibilities within the state, increased financial constraint, and the development of privatised services utilising both for-profit and non-profit organisations have also created additional complexities for local governments. Although the amount deployed by the Government is by no means a small amount, but the funding requirement for the smart cities is expected to be pretty huge, requiring not just Central and State Government and local body funding, but a big role to play by the private sector as well, through public private partnership projects. For instance, the success of such a city depends on residents, entrepreneurs and visitors becoming actively involved in energy saving and implementation

of new technologies .The urban Governments are increasingly working through and alongside other interests.

Selfish motives of Business class

With the growing popularity of Smart Cities, last few years have seen the empowerment of several actors and the emergence of others who were almost entirely absent earlier .There were several beneficial political alliances in past in Indian cities, but now coalition powers have emerged who have tremendous influence over urban development and policy issues which they didn't have prior to economic liberalization and announcement of Smart cities

These urban coalitions are becoming more effective at achieving their goals than several governments initiated and executed urban development and governance efforts. However, this increase in efficiency is often accompanied by a trade-off inequity. Since these coalitions tend to have a narrow focus, aiming only to successfully achieve their goals, they do not address the needs of a broader urban population in the same way a government would. In order to understand contemporary urban development in India, it is necessary to understand how these urban coalitions emerge, endure, and often, succeed.

Equitable services

Governments at the local levels can enhance the development outcomes. In an increasingly urbanized world, it will be crucial to ensure that public services in urban areas deliver for poor people as well as different communities, and it is now well known that governance factors are important in constraining or enabling effective service delivery. There are common assertions that services are likely to be better provided in selected pockets of urban areas because citizens may be more affluent and influential and may feel more able to demand better services: accountability relationships with politicians and service providers are 'closer', for instance, so will be stronger, and there may be perceptions of higher 'political rewards' in delivering services to urban populations that may be more likely to vote. However, in such cases, the people belonging to some communities within these growing cities and towns do not always benefit from these dynamics.

The issues relating equity and social justice is directly related to service delivery at the level of urban living, namely local. Equity outcomes thus have two main dimensions, firstly access to services across different groups of the population and secondly interregional equity in terms of disparities within urban local governance jurisdiction. The questions is whether service delivery impartial, universal and inclusive or does it caters to different communities differently? The experience of communities differs according to the municipal area they occupy and the kind, scale and nature of civic services available to them. Although various services will be provided by urban government and especially KDMC, in upcoming smart city, the real question which the research will raise is whether these services will accessible ,available and affordable to the people.

Suggestions

New methods of inclusion should be developed and disseminated among Smart cities. Cities all over the world need inclusive pro-poor strategies and guidelines enabling innovative local solutions. If the city is good for its weakest citizen – a child, an aged person, a new immigrant, a handicapped person, it is going to be good for everyone else, too. Integration and inclusion have to be on top of the Smart Cities agenda. Sustainable development has to be democratized at the local level in every country. The profile of a city cannot be upheld with individual projects any more but every decision should be weighed on the scale of sustainability. Cities should be patient in developing a culture of sustainability and transformation, which is based on a continuous analysis of their localities.

Conclusion

Economic development has led to spatial expansion in India. This has further given rise to the problem of quality to life and right to the city. Governance through right strategy and effective policies and programme can increase corporate initiative in public sphere towards promoting objectives of socialism, democracy and welfare state. Local Governance and Corporate Social Responsibility together can help in sustainable development. The smart city concept is one such upcoming concept which seems to be the solution for the present day problems as well as the sustainable future. But in the absence of any definite guidelines and no solutions to the challenges posed in developing the smart cities in India, there is need for further research to work out the parameters, and solutions to challenges of Smart Cities.

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Variation of the Electrical and Optical Properties of Quantum dots due to Organic Medium

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Abstract:

We haveinvestigated the effect of organic medium on the electrical and optical properties of Quantum Dots. We have used organic mediumas room temperature nematicliquid crystals (NLCs).The optical properties of Quantum Dotshave been altered in presence of NLCs. The effective electrical and optical properties like: Ultra Violet (UV) absorbance spectrum,optical band gap and refractive indexhave been calculated for pure as well as in presence of NLCs. Due to dielectric divergence between QDs and surrounding medium, the absorption spectrum of QDs shows Red Shift. From an application point of view, this phenomenon might be utilized to develop Liquid Crystal Filters (LCFs).These properties of the composites make them suitable to designnew devices based on QDs-LCs.

Literature Review

Inorganic metal and semiconductor nano particles (NPs) are zero-dimensional nanomaterials called quantum dots (QDs). Since their discovery by Alexei Ekimov in 1980s, QDs created a new field of research due to their modified semiconducting nature and fluorescent properties determined by their size [1-2]. Their physical dimensions are smaller than the exciton Bohr radius usually less than 10 nm. QDs semiconductors in the range of 2 to 10 nm in diameter are made of hundreds to thousands of atoms of group II and VI elements (e.g., CdSe, CdTe, and ZnO), group III and V elements (e.g., InP and InAs), and group IV–VI elements (e.g., PbS). Their unique size and shape-dependent optical and electronic properties differing from the bulk and from the atomic/molecular level are attributed to the 3-dimensional quantum confinement effect, i.e. the strong confinement of electrons and holes in the case where the radius of a particle is below the exciton Bohr radius of the material [3-4].Energy band gap in QDs is inversely proportional to the size of QDs. As the dimension decreases, the band gap energy increases. In other words, the smallest QD will emit light with the shortest wavelength (highest energy) as governed by the band gap. Due to their size dependent properties, QDs have also found application in various fields including high density data storage, chemical sensing, optics, telecommunications, computing and more extensively in biomedicine [5].

Introduction

Among the various kinds of semiconductor nanoparticles, CdSe-QDs nanoparticles are most widely studied as their emissions can be easily tuned to cover from red to blue with decreasing nanoparticle size. Assembling of QDs into nanoscale configurations over macroscopic dimensions is an important goal to realize their potential applications. It should be noted that the use of QDs in optoelectronics requires their incorporation into a matrix. In principle, anisotropic properties of NLCs can facilitate assembly of QDs in nearly one-dimensional chain-like structures along the nematic director and these assemblies of QDs can be controlled by external electric fields. On the other hand unique optical and electronic properties of QDs might be useful to enhance electro-optical properties of LCs. In the present article, we are reporting modifying the electrical and optical properties of the CdSe-QDs with the help of a room temperature nematic liquid crystal. We have observed the tuning of the U-V absorbance spectrum, effective refractive index and optical band gaps of the CdSe-QDs due to presence of NLCs medium.

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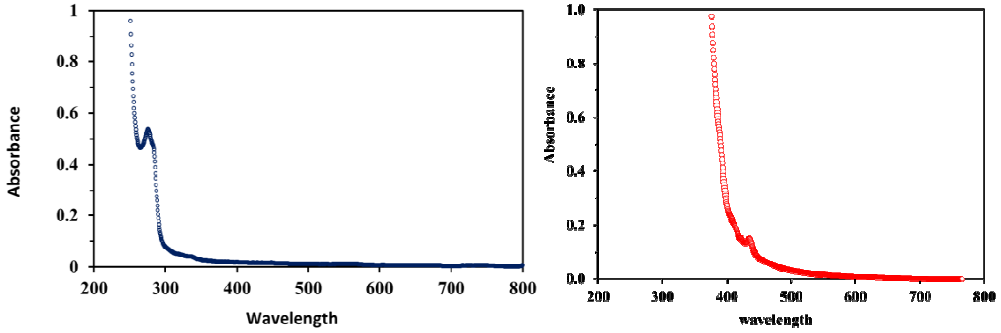
Experimental Techniques

The NLCs-QDs composites are prepared by adding a weight percentage of QDs in the liquid crystalline material. NLCs and QDs have been dissolved in chloroform ($CHCl_3$) and nano-composites are ultrasonicated in isotropic phase to obtain uniform dispersion. Slow evaporation of the solvent ($CHCl_3$), resulted in the formation of desired dispersion. Generally when a sample is analyzed, it is measured as a solution. Accordingly, the type and the concentration of the solvent must be adequate. A solvent that dissolves the sample well and that is free from mutual action, has small absorbance in measurement wavelength range has small volatility is desired. A cell with a lid is necessary for volatile solvent. As a solvent, water is excellent for measuring absorbance in visible/ultraviolet range, as it has no absorbance itself. On the other hand, many of the normally used organic solvents are transparent to the human eye, so it can be mistakenly believed that absorbance does not exist in ultra-violet range either. In the present study sample were dissolved in CHCl3 and also used as a reference in a standard quartz cells with 10 mm path length. The samples were separately placed in the spectrometer, with another quartz cell as reference for absorption measurements.

Results:

The sizes of QDs have beencalculatedfromrecorded UV absorption spectra. In Fig. 1, an absorption peak has been observed at 290 nm.The sizes of QDs have been found to be ~ 5 nm. Optical absorption spectra of QDs dispersed inNLCsis given in Fig.2.Absorption spectra of composites show the redshift due to dielectric divergence between QDs and surrounding host LCs medium.

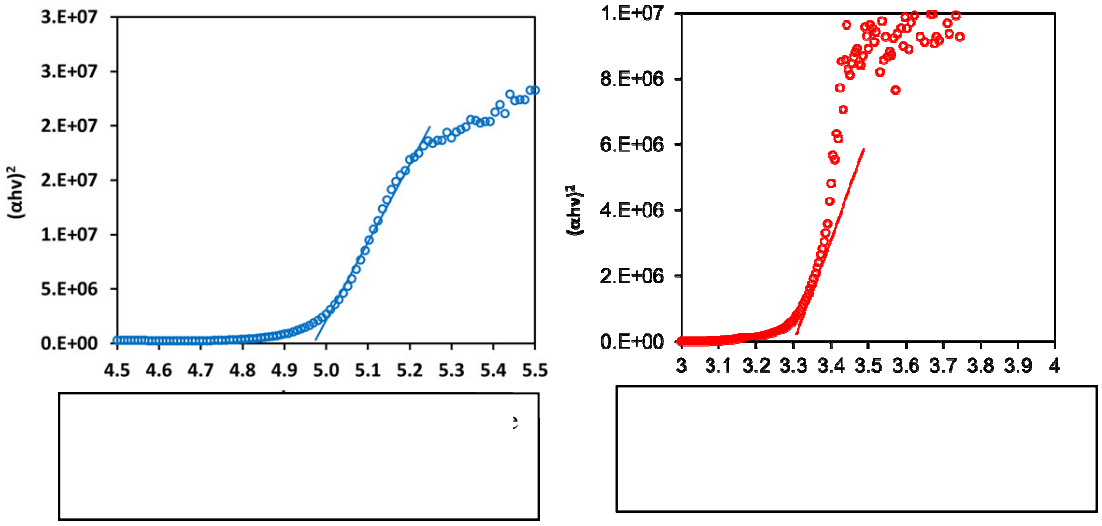


To determine the energy band gap of QDs and NLCs-QDs materials that only requires the measurement of the absorbance spectrum and without the need of additional information. The band gap energy can be determined using the Tauc relation [6-7]. It is convenient way of studying the optical absorption spectrum of a material. According to the Tauc relation, the absorption coefficient for material is given by

$$\alpha h\nu=[A(h\nu-Eg)]^n \qquad (1)$$

where$h\nu$ is incident photon energy, α is the absorption coefficient, ($\alpha= (2.303\times A)/d$, where d and A are the thickness of the cell and absorbance respectively) and Eg is the band gap corresponding to the particular transition in the material. Exponent n is an index which assumes the values 1/2, 2, 3/2 and 3 corresponding to the direct allowed, indirect allowed, forbidden direct and forbidden indirect transitions, respectively depending on the nature of the electronic transition responsible for the absorptions [6]. Eg were then calculated from the Tauc plots by fitting a line through the linear portion of the band edge region [8]. Here the best fitting is characterized by the value of chi-square (χ^2) and correlation coefficient (R^2). For best fitted curve the value of χ^2 should tend to 0 and the value of R^2

should tend to 1. By the process of fitting the best fit values of various parameters of Equations (1) are obtained [9]. The Tauc plot is plotted with hν along the X-axis and $(\alpha h\nu)^2$ along the Y-axis. The Tauc plot of a sample defines the optical band gap as represented in Figure 3 and 4 for pure QDs and NLCs-QDs. The value of optical band gap and refractive index for pure QDs and NLCs-QDs samples are listed in table 1. From table 1 it is clear that the electrical and optical properties of QDs have been modified in presence of NLCs. The effective refractive index of the QDs has been increased from 2.00 to 2.29 due to presence of NLCs molecules [10]. The change in optical band gap of the QDs dispersed in NLCs causes the increment of refractive index of the QDs. The optical band gap of the QDs has been shifted from 5.00eV to 3.32eV due to presence of NLCs.



Conclusions:

We have demonstrated theimmense effects of QDs dispersion on electrical and optical and properties of the QDs and NLCs-QDs. The composites are shown to enhance electrical and optical properties.Due to dielectric deviationbetween QDs and Organic medium, the absorption spectrum of QDs shows Red Shift for studied composite systems.These properties of the composites make them suitable to designnew devices based on QDs-LCs.From an application point of view, this phenomenon might be utilized to develop Liquid Crystal Filters (LCFs).

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Academic Stress between Male and Female Undergraduate Collegiate Students

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Abstract

Background of the problem:

High levels of Academic stress may have a negative effect on academic achievements and decline the health. Stress related problems increase during the period of college life of the students.

Objectives

The present study deals with the difference of Academic stress between Male and female undergraduate collegiate students

Methods

The sample consisted of 75 male students and 75 female students were selected for the study. The academic stress was assessed by using Gadzella's Life Stress Inventory (B. M. Gadzella, 1991). Five subscales of academic stressors including frustrations, conflicts, pressures, changes, and self-imposed and four subscales describing reactions to stressors including physiological, emotional, Behavioral, and cognitive were comprised.

Results

Result reveals that significant difference of academic stressor was found between Male and female collegiate students (t= p<.05). In order to find out the differences of five subscales of academic stressors between Male and female collegiate students; t-ratio was computed for each category separately. The result reveals that significant differences were found in Frustration (t=p<.05), conflict and (t=p<.05) Pressure academic stressors whereas no significant difference were found in Changes an Self-imposed academic stressors between male and female students. In addition, significant difference of reaction to stressors was found between Male and female collegiate students. In order to find out the differences of four subscales of Reactions to stressors between Male and female students; t-ratio was computed for each category separately. The result reveals that only significant difference was found in Physiological Reactions to stressors (t=p<.05), and cognitive (t=p<.05), however Insignificant differences were found in emotional and Behavioral Reactions to stressors between Male and female students.

Conclusion

The female students were more suffered from the academic stressors as compared to male collegiate students

Introduction

Academic stress is one of the serious Psychological problems that negative impact of student's life, its effects could be reflected in student social, academically, and well-being Sinku (2015). Linn and Zeppa (1984) found that stress can lead to Academic decline, poor relationships with peers and family members and overall dissatisfaction with life. Academic Stress was found to be a part of students' life and could give impact on how students cope with the demands of Academic life. Students are predominantly suffers from stress during their study period as because of academic pressure, classicist criteria and tough nature. Stress also lead to poor physical health, mental distress, reduce students' self-esteem and have a negative effect on cognitive functioning and learning of students (Dyrbye et al., 2006; Velayudhan et al., 2010). Academic stress is mental and emotional

pressure, tension, or stress that occurs due to the demands of college life (DeDeyn,2008). There is a no evidence of research reports on academic stress on medical students. The effort made by the investigator, can prove very useful for reduce academic stress and improve mental health to female students.

Methods

The data was collected individually through questionnaires from the 75 male and 75 female undergraduate collegiate students studying in third year of arts discipline from the Affiliated colleges of Dr. Babasaheb Ambedkar Marathwada University during the academic year 2015-16 The data was checked for accuracy and completeness and was coded and put up into the SPSS Descriptive statistics for all studied variables, mean, standard deviation and t-ratio was considered statistically technique throughout the study and the level of significant was set-up at 0.05 level.For measure the academic stress of collegiate students Gadzella's (1991) Students-life Stress Inventory was used. It was compose of 51 items to be divided into two major sections: types of stressors and reactions to stressors. The type of stressors section was including both personal and academic stressors and is divided into the following five subscales: frustrations, conflicts, pressures, changes, and self-imposed. The reactions to stressors section was comprise of the following four subscales: physiological, emotional, behavioral, and cognitive. Participants respond to a five-point scale using 1 = never, 2 = seldom, 3 = occasionally, 4 = often, and 5 = most of the time.

Results and discussion

The results concerning this are presented in the form of tables. For the sake of convenience and methodical presentation of the results, following order has been adopted

Table-1

RATE OF OVERALL LEVEL OF STRESS OF MALE AND FEMALE

Sr. No.	Overall level of stress	Students	
		Male (375)	Female (347)
1.	Mild	49.33% (191)	46.66 % (176)
2.	Moderate	44.44% (137)	37.33% (119)
3.	Severe	13.33% (60)	16.00% (52)

Table 2.1 shows the rate of overall level of stress between male and female students.

Table-2

ACADEMIC STRESSORS AND ITS FIVE SUBSCALES OF MALE AND FEMALE COLLEGIATE STUDENTS

Dimension	Students	Number	Mean	S.Ds.	t-ratio
Frustration	Male students	75	16.12	2.23	*
	Female students	75	18.67	2.67	
Conflicts	Male students	75	11.11	1.67	*
	Female students	75	13.67	1.69	
Pressure	Male students	75	13.45	1.87	
	Female students	75	12.08	2.14	*
Changes	Male students	75	10.72	1.04	
	Female students	75	10.89	1.09	NS
Self imposed	Male students	75	16.78	2.25	NS
	Female students	75	16.56	2.13	
Academic Stressors	Male students	75	68.12	8.12	*
	Female Students	75	71.98	10.89	

* Significant at .05 level.

Table- 2 shows the academic stressors and its five subscales between male and female students. The findings of the study indicates that significant difference of academic stressor was found between male and female collegiate students (t= p<.05). In order to find out the differences of five subscales of academic stressors between male and female students; t-ratio was computed for each category separately. The result reveals that significant differences were found in Frustration (t=,p<.05) ,conflict (t=,p<.05) and Pressure academic stressors (t=,p<.05.) However, insignificant difference were found in Changes and Self-imposed academic stressors between male and female students.

Table-3
Reactions to stressors and its four subscale of Male and female students

Dimension	Students	Number	Mean	S.Ds.	t-ratio
Physiological,	Male students	75	32.89	4.56	
	Female students	75	30.89	4.10	*
Emotional,	Male students	75	11.90	2.80	NS
	Female students	75	11.78	2.74	
Behavioral,	Male students	75	12.97	3.31	NS
	Female students	75	13.12	3.40	
Cognitive	Male students	75	4.16	1.40	*
	Female students	75	5.34	1.79	
Reaction to stressor	Male students	75	61.67	8.56	NS
	Female students	75	61.13	8.18	

* Significant at .05 level.
NS=Not Significant.

Table-3 depicted the differences of Reactions to stressors and its four subscales between Male and female students. The result given in Table- reveals that insignificant difference of Reactions to stressors was found between Male and female collegiate students. In order to find out the differences of four subscales of Reactions to stressors between Male and female students; t-ratio was computed for each category separately. The result reveals that significant difference was found in Physiological and cognitive reaction to stressors (t=p<.05) between male and female students. However, insignificant differences were found in emotional and Behavioral Reactions to stressors between male and female students.

Discussion

The result reveals that 49.33% male students reported mild stress, 44.44% male students reported moderate stress and 13.33 % male students reported severe level stress. Whereas 46.66% female students reported mild stress, 37.33% female medical students reported moderate stress and 16.00% female medical students reported severe level of stress. Although male and female collegiate students may encounter common stressors in college, perceptions of what are considered as academic stressors may differ. The research finding indicates that there was significant difference of academic stressors was found between male and female students. Female students were found to have got more suffered from academic stressors rather than male students. Academic stressors include the student's perception of the extensive knowledge base required and the perception of inadequate time to develop it (Carveth, Geese, & Moss, 1996, Sinku 2016). The high level of academic stressors of female medical students may be due to the female students share common academic stressors such as family-related pressures, more traditional and insecure position after graduation, and personal factors. While comparing differences of five subscales of academic stressors between male and female collegiate students separately, significant differences were found in Frustration conflict and Pressure academic stressors. female medical students more frustrated , male students this may be due to the daily hassles

to reach goals, lack of resources available failures to accomplish goals, feelings of being a social outcast, dating problems, and denied opportunities in spite of one's qualifications, social, religious, and political backgrounds (Solanke et.al. 2012, Shah and Trivedi, 2009; Singh et al., 2004, Singh 2010,Sinku and Bachewar 2014,) While comparing reaction to stressors, the result reveals that insignificant difference of reaction to stressors was found between male and female students . In order to find out the differences of four subscales of Reactions to stressors between male and female students. The result reveals that significant difference was found in Physiological Cognitive Reactions to stressors between male and female students. Male students were found to have got more physiological reaction to stressors than their counterparts. Whereas male students incur significantly less cognitive ration to stressors

Limitations

Results of this study are limited by a relatively small preliminary survey of self-reported academic stress rather than a study of actual behavior, which would be very difficult to achieve. To keep the student data-collection time within reasonable limits, information on Academic stress self-reported and no special psychometric instruments were used to measure it. Future research is warranted on estimating the level of stress by psychometric instruments.

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Travel and Tourism Industry in India: Challenges, Opportunities and Road Ahead

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Abstract:

The world is changing. Previously insignificant and disregarded markets are booming, replacing former superpowers now tired and worn out. The balance of power has shifted. And perhaps nowhere is this as apparent as in India. Tourism in and from India is not only at an all-timehigh but is growing faster than in any other region. This research paper talks about the growing significance of travel and tourism sector in India. It also highlights the Incredible India Campaign which was launched in 2002 by the Ministry of Tourism.

Tourism today is the most vibrant tertiary activity and a multi-billion industry in India. Traditionally known largely for its historical and cultural dimensions, tourism today is highlighted for its immense business opportunities. However, there are certain challenges faced by this industry. This paper also highlights various challenges faced by this industry and also the future potentials of Travel and tourism in India. Tourism has vast potential for generating employment and earing large sums of foreign exchange.This sector has emerged as one of the key drivers of growth in India.

Introduction

Tourism today is the most vibrant tertiary activity and a multi-billion industry in India. Traditionally known largely for its historical and cultural dimensions, tourism today is highlighted for its immense business opportunities.Tourism is not an activity for pastime and entertainment but is an enriching and energizing activity. Tourism is the right vehicle for a developing country like India which is on the path of modern economic growth through structural transformation of the economy. The value-added effect of tourism is increasing.

Home to almost half of the globe's population, the potential of Indian as a tourist feeder market is beyond comparison. Tourism in and from India is not only at an alltime high but is growing faster than in any other region. As the region builds up more economic muscles and its people become more affluent, Indian tourism is set to dwarf all other markets including today's giants Germany and the US.

India can always boast of its rich cultural heritage. Travel and Tourism in India is an integral part of Indian tradition and culture. In ancient times, travel was primarily for pilgrimage –as the holy places dotting the country attracted people from different parts of the world. Since times immemorial, the rulers in different parts of India built luxurious palaces, enchanting gardens, marvelous temples, grand forts, tombs, memorials. These bear testimony to the exquisite inheritance of this land, are examples of unparalled craftsmanship of the people of the bygone ages. The beauty of India's cultures heritage and the richness of nature's endowments make India tourist paradise.

Commencing with a slow growth at the start of the millennium, the Indian tourism industry has performed quite well in the last couple of years. The Indian tourism industry has outperformed the global tourism industry in terms of growth in the volume of international tourists as well as in terms of revenue. The World Travel and Tourism Council (WTTC) have named India along with China as one of the fastest growing tourism industries for the next 10 to 15 years.

Objective of the Study

The main objectives of this study are:

To understand the significance of Travel and Tourism Industry in India.

To analyze the need for challenges faced by Travel & Tourism Industry in India.

To evaluate various opportunities and future prospects of Travel & Tourism Industry in India.

Research Methodology of the Study

The research paper is based on secondary data collected from articles in newspapers, books, journals, reports, articles published in various magazines, internet etc.

Incredible India and Indian Tourism Industry

Before 2002, the Indian government regularly formulated policies and prepared pamphlets and brochures for the promotion of tourism, however, it did not support tourism in a concerted fashion. However, in 2002, the tourism ministry made a conscious effort to bring in more professionalism in its attempts to promote tourism. It formulated an integrated communication strategy with the aim of promoting India as a destination of choice for the travelers.

The Ministry of Tourism launched a campaign to promote Incredible India as a tourist destination in 2002.[3] The phrase "Incredible India" was adopted as a slogan by the ministry. The primary objective of this branding exercise was to create a distinctive identity for the country. The campaign projected India as an attractive tourist destination by showcasing different aspects of Indian culture and history like yoga, spirituality, etc. The campaign was conducted globally and received appreciation from tourism industry observers and travellers alike. The campaign successfully established India as a high-end tourist destination, generating a 16% increase in tourist traffic in the first year.

Today tourism is the largest service industry in India, with a contribution of 6.23% to the national GDP and providing 8.78% of the total employment. India witnesses more than 5 million annual foreign tourist arrivals and 562 million domestic tourism visits. The tourism industry in India generated about US$100 billion in 2008 and that is expected to increase to US$275.5 billion by 2018 at a 9.4% annual growth rate. The Ministry of Tourism is the nodal agency for the development and promotion of tourism in India and maintains the "Incredible India" campaign.

Challenges Faced by Travel & Tourism Industry

The growth of modern, organized tourism however was slow. It was only after the 80's that tourism as an industry picked up speed. Today tourism is the largest service industry in India. However, there are certain challenges faced by this industry, some of them are mentioned below:

Infrastructure such as ports of entry to modes of transport to urban infrastructure such as access roads, electricity, water supply, sewerage and telecommunication are needs for the Travel and Tourism industry. To harness India's tourism potential, several efforts are being taken for opening new destinations and exploring niche segments. However, infrastructure facilities such as air, rail, road connectivity, and hospitality services at these destinations and the connecting cities are inadequate. This remains a major hurdle for development of tourism

Amenities need to be improved at various tourist locations. These include basic amenities such as drinking water, well maintained and clean waiting rooms and toilets, first aid and wayside amenities (to meet the requirement of the tourists travelling to tourist destinations) such as lounge, cafeteria, and parking facilities, among others. India scores poorly in terms of availability of these infrastructure facilities. Inadequate infrastructure facilities affect inbound tourism and also could lead to an increase in the outflow of domestic tourists from India to other competitive neighboring countries. Hence, for the industry to register healthy growth, issues concerning all the related sectors need to be addressed.

Unavailability of skilled manpower is a major challenge faced by the travel and tourism industry, one of the largest employment generators in the country. To sustain growth in the travel and tourism industry, trained manpower/ workforce is required at every level — managerial, supervisory, skilled or semi-skilled. Challenges faced at each level are different. At mid and senior management levels, the industry faces talent crunch and at the front-line staff level, although human resources are adequate, a boom in other service industries such as banking, retail, airline and BPO have resulted in shortage of manpower at this level for the travel and tourism industry. Thus, we have a demand-supply mismatch with respect to manpower in the travel & tourism and hospitality sector in India. A study

conducted by Ministry of Tourism suggests that existing supply of human resources do not cater to even 40% of the demand. Thus, the industry has no alternative but to fill the void with untrained resources. Such a high proportion of untrained manpower would adversely affect quality of services offered to the tourists.

A tourist interacts with tour operators, hotel staff, and with persons from different backgrounds, occupations and experience. Such people include staff at bus/railway station, immigration staff at airports, taxi/coach operators, ticketing/ travel agencies, small hotels, dhabas/roadside eateries, staff at heritage sites, and tour guides, among others. The degree of service offered by these various stakeholders has a significant impact on determining the tourist's overall experience of India as a tourist destination. The government has taken initiatives to promote responsible tourism by sensitizing key stakeholders of the tourism industry through training and orientation. One such major initiative is the "Atithi Devo Bhava" campaign. More such efforts are required to improve the degree of service across various operators.

India is High taxed industry in case of Travel and tourism in, which makes India expensive as a tourist destination. This is affecting the growth of the industry in India and India is losing out to other low-cost destinations. Inbound tourism is the one most affected. Various taxes are levied across the entire industry right from tour operators, transporters, airline industry to hotels and these include service tax, luxury tax, tax on transportation, tax on aviation turbine fuel (airline industry), and various taxes on transportation. In addition, these tax rates tend to vary across different states in the country.

Security has been a major problem as well for growth of tourism for a number of years. Terrorist attacks or political unrest in different parts of the country have adversely affected sentiments of foreign tourists. Terror attacks at Mumbai in November 2008 dealt a strong blow to tourism in the country. The terror attacks raised concerns of safety. In addition, insurgency in different parts of the country also mars India's image as a safe destination. Following the terror attacks in Mumbai, security at tourist spots, airports and hotels has been beefed up to regain confidence of tourists. However, the government needs to take a proactive approach in addressing these issues and in averting the potential impact on the industry. Unless the visitor's security becomes a primary focus of concern, many tourism and travel destinations may face great economic losses in the future.

Visa procedures are seen as a hindrance for inbound international tourists,. A number of countries competing with India for tourists provide visa on arrival. India should provide visa on arrival for more countries or for certain categories of tourists for a specific duration. A number of projects in the tourism infrastructure segment and in the hotels industry are delayed due to non-attainment of licenses and approvals on time.There is a greater need for speedier clearances and approvals for all projects related to the industry.

Opportunities for Travel and Tourism Industry in India

India's size and massive natural, geographic, cultural and artistic diversity offers enormous opportunities for the travel and tourism industry. The promotion and aggressive marketing measures undertaken by the government is expected to aid influx of tourists. The industry would also benefit from introduction of new forms of tourism and development of niche segments.

Medical tourism in India has gained considerable popularity in recent years. India has a major cost advantage in this field compared with other countries. In addition to cost advantages, Indian healthcare industry offers state-of-the art equipment, technological advancement, qualified and experienced medical personnel and a blend of modern and traditional medicines. Thus, medical tourism has immense potential in India.

Opportunities also exist in ecotourism, adventure tourism, and cruise tourism. Eco-tourism is increasing in popularity, evident in the development of eco-friendly hotels and tour packages. With increasing environment awareness and consciousness among tourists and given efforts undertaken by the government and private players, the ecotourism segment is expected to record handsome growth in the coming years.

India holds immense potential in adventure and cruise tourism. India's greatest adventure tourism assets are Himalayas and its mighty rivers. The peak period for adventure tourism is the "lean period" of cultural tourism. Development of adventure tourism can make India a round-the-year tourist destination. The cruise industry is one of the most promising industries in India. However, strong efforts need to be made to develop this industry. Other forms of tourism such as agri tourism, pilgrimage tourism, heritage tourism, and MICE tourism also hold enormous potential.

Future Potentials and Road Ahead

Among top 10 sectors in India, tourism and hospitality sector attracts highest foreign direct investment (FDI). In the period April 2000 – August 2014, this sector attracted around US$ 7,441 million of FDI, according to the Department of Industrial Policy and Promotio (DIPP). A high and positive growth of 12.5 per cent was registered in foreign tourist visits (FTVs) to north-eastern states of India during 2012 from 2011, which further rose by more than 100 per cent to register a growth of 27.9 per cent during 2013 from 2012. Among these north- eastern states, Manipur recorded the highest FTVs followed by Arunachal Pradesh and then Tripura. FTAs in India witnessed a growth of 12.9 per cent in the period July 2013 – July 2014, according to data received from Ministry of Tourism, Government of India. The FTAs during the period January–July 2014 stood at 4.11 million as compared to 3.87 million during the corresponding period of 2013, registering a growth of 4.4 per cent. USA contributed the highest number to foreign arrivals in India followed by Bangladesh and the UK. Foreign exchange earnings (FEE) during January–July 2014 stood at US$ 11.055 billion as compared to US$ 10.85 billion during the same period last year. FEE during July, 2014 stood at US$ 1.68 billion compared to US$ 1.41 billion in July, 2013. Expected share of tourists by expenditure - Domestic travelers are expected to contribute around 84.7 per cent to total tourism revenues by 2024.

According to the latest tourism satellite accounting (TSA) research released by the WTTC and its oxford Economics.

1. The demand for travel and Tourism in India is expected to grow by 8.2 & between 2011 to 2019 and will place India's as the third position in the world.
2. India's travel and tourism sector is expected to be the second largest employer in the world, employing 40,037,000 by 2019.
3. Capital investment in India's travel and tourism sector is expected to grow at 8.8% between 2010 and 2019
4. The report forecast India to get capital investment worth US$94.5billion in the travel and tourism in 2019.

India fares much better as a business destination due to its economic growth. It still remains a highly price-competitive destination. The recent changes in its visa regime with the introduction of visa on arrival can lead to a great boost in the international arrivals. This sector has emerged as one of the key drivers of growth in India. According to the World Travel and Tourism Council (WTTC), Indian tourism will be one of the most rapidly growing industries in the next few years. India is projected to become the fifth fastest growing business travel destination from2010 – 2019with an estimated real growth rate of 7.6%.

Conclusion

Thus, the tourism sector is expected to perform well in future and the industry offers an interesting investment opportunity for long-term investors. Realising the potential in India, international and domestic hotel chains were rushing to cash in on it. Medical tourism was poised for rapid development in the future and India is busy developing first-class facilities to attract this multi-billion dollar niche market.

Indian Tourism has vast potential for generating employment and earning large sums of foreign exchange besides giving a fillip the country's overall economic and social development. This sector has emerged as one of the key drivers of growth in India. Much has been achieved by way of

increasing our seat capacity, increasing trains and railway connectivity to important tourist of accommodation by adding heritage hotels to the hotel industry and encouraging paying guest accommodation much more remains to be done. Since tourism is a multi-dimension activity and basically a service industry. It would be necessary that all wings of the central and state governments' private sector and voluntary organizations become active partners in the endeavor to attain sustainable growth in tourism if India is to become a world player in the tourist industry.

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Socio-Economics Status of Volleyball and Basketball Player

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Abstract

The aim of the study was to find out the Socio-economic difference of Inter-Collegiate Volleyball and Basketball players. For this present study, 100 Volleyball and 100 Basketball players were randomly selected as a subject for the present study. The socio-economic status scale by Kapoor and Kocher (1994) was used to comprised the socioeconomic status of volleyball and Basketball players, t-ratios has been used to compare the socio-economic status difference between volleyball and Basketball players who were Krida Mahotshva 2015 in Swami Ramanad Teerth Marathwada University Nanded.Socio-economic status difference were found between volleyball and Basketball players (t = P<.01), where Basketball players having got socio-economic status.While analysis the difference of high SES of Volleyball and Basketball players, significantly high SES differences were found (t=P<.01), where the Volleyball players was found to have less score on high SES. Whereas, middle SES was concerned, significant Middle SES difference were found (t=P<.01), where Basketball players have high score on middle SES. Whereas significantly low SES differences was found to the volleyball and Basketball players (t=P<.01), where Volleyball players have high score on low SES.

Introduction

The game of volleyball and Basketball are typical major games and played throughout the country. The game of Volleyball and Basketball differ with each other in their skills, techniques and strategies. It has been recognized that socio-economic factors play a vital role in an individual's performance in sports. The Socio-economic status make-up of an individual plays an important role in their achievements in every field of life. Considerable researches have been conducted on the socio-economic status of sports persons; team sport versus individual sport, Men players versus Women players. But very few research studies are available in published from a socio-economic status of games like volleyball and Basketball players. There are many psychological factors like socio-economic status attitudes, motives, spectators, self-concept, motivation, adjustment etc., which influence the participation and performance of sportsmen in games and sports. The socio-economic status of the group and the status of an individual in his group influence competitive and co-operative behavior for different reasons and the different factors than those motivating people in the middle and upper economic group influencing the well-being of the players. Therefore, the present study "Comparison of Socio-economic status of inter collegiate Volleyball and Basketball players" for investigation.

Methods

Sample size:

Total 100 Volleyball and 100 Basketball players who were participating in Krida Mahotshva 2015 in Swami Ramanad Teerth Marathwada University Nanded were randomly selected as a subjects for the present study.

Tools of the Study

Socio-economic status scale by Kapoor and Kocher (1984), were distributed to Volleyball and Basketball players, before filling the SES scale instruction were given by the investigator to the players.The scale seek information about respondents Volleyball and Basketball players. The subjects were requested to give exact information about their families and the confidentiality was assured.There are different possible answer to each of the question which suited them most and tick

mark (√) against it. However, in case of question 10 they were to put a cross or tick mark for each of the items present in their house.

Statistical Analysis

The Statistical Package for the Social Sciences (SPSS; version 18.0) was used for the data analysis. Independent t tests were used to assess overall differences between Kho-Kho and Kabaddi players. The level of significant set up at 0.5 level of confidence.

Results and Discussion

The present section is dedicated to the presentation of results along with the discussion of present study. The results and discussion have been presented in concise and comprehensive manner that is easy to comprehend starting with selected physical parameter.

TABLE 1 SHOWS THE CRITERION MEASURE OF VARIABLES OF VOLLEYBALL AND BASKETBALL PLAYERS

Morphological Characteristics of volleyball and basketball players					
S.No.	**Parameters**	**Volleyball Players**		**Basketball Players**	
1	Age	21.09	4.13	21.89	4.51
2	Height	173.65	8.90	172.98	8.67
3	Weight	68.41	6.56	67.76	6.34

Table 1 illustrates the age, height and weight of volleyball and basketball players . the mean age of these volleyball Players were 21.09 $\pm$ 4.13, height were 173.65 $\pm$ 8.90 cm. the weight were 68.41 $\pm$ 6.56Kg and mean age basketball Players were 21.89 $\pm$ 4.51, height were 172.98 $\pm$ 4.51 cm. the weight were 67.76$\pm$ 6.34 Kg.

TABLE-II
MEAN SCORE, STANDARD DEVIATION AND T-RATIO OF SOCIO-ECONOMIC STATUS OF VOLLEYBALL AND BASKETBALL PLAYERS

Parameters	**Players**	**Number**	**Mean Score**	**Standard Deviation**	**t-ratio**
SES	Volleyball	100	10.89	1.45	
	Basketball	100	12.56	1.57	P<.01

* Significant at .01 level.

With regards to Socio-economic status of volleyball and Basketball players obtained the mean values of 10.89 and 12.56 respectively, which ae given in Table-I. The obtained t = 3.23 significant at .01. This means that the significant differences were found out between volleyball and Basketball players. It revealed that volleyball and Basketball players had differ in socio-economic status in favors of Basketball players. The basketball players was found to have got more socio-economic status as compare than volleyball layers. This may be due to the Basketball is more popular game in urban area than volleyball players it is well recognized that urban area people more socio-economic as compare than rural area people.

TABLE-III
MEAN SCORES, STANDARD DEVIATION AND T-RATIO OF HIGH SOCIO-ECONOMIC STATUS OF VOLLEYBALL AND BASKETBALL PLAYERS

Parameters	Players	Number	Mean Score	Standard Deviation	t-ratio
High SES	Volleyball	100	10.45	1.49	
	Basketball	100	13.44	2.06	P<.01

* Significant at .01 level.

The findings at Table-III reveals that there is significant difference were found between high socio-economic status of volleyball and Basketball players (t=, P<.01), the volleyball players having less high socio-economic status as compared to Basketball players. The volleyball mostly popular in rural and sub urban area and rural area people low socioeconomic status . These difference is probably due to volleyball is less costly game as compared to Basketball.

TABLE-IV
MEAN SCORE, STANDARD DEVIATION AND T-RATIO OF MIDDLE SOCIO-ECONOMIC STATUS OF VOLLEYBALL AND BASKETBALL PLAYERS

Parameters	Players	Number	Mean Score	Standard Deviation	t-ratio
Middle SES	Volleyball	100	9.05	1.67	
	Basketball	100	11.67	1.97	P<.01

* Significant at .01 level.

Table-IV Clearly indicates that the significant difference were found out in middle socio-economic status of volleyball and Basketball players (t= P<.01), the Basketball players having more middle socio-economic status as compared to volleyball players. This may be due to Basketball players highly belong to middle class family and Volleyball plays at rural area.

TABLE-V
MEAN SCORE, STANDARD DEVIATION AND T-RATIO OF LOW SOCIO-ECONOMIC STATUS OF VOLLEYBALL AND BASKETBALL PLAYERS.

Parameters	Players	Number	Mean Score	Standard Deviation	t-ratio
Low SES	Volleyball	100	12.01	3.22	
	Basketball	100	10.30	2.43	6.56 *

* Significant at .01 level.

The findings of the Table-V Clearly indicates that the significant difference were found out in low socio-economic status volleyball and Basketball players (t= P<.01), the volleyball players having more low socio-economic status as compared to Basketball players. This may be due to volleyball players generally belongs to low socio-economic class family.

Conclusion

Finally the following conclusions were drawn in the present study :

1) There was significant difference in Socio-economic status found between Volleyball and Basketball players. The Basketball players have got more socio-economic status than Volleyball players.
2) There was significant difference in high Socio-economic status found between Volleyball and Basketball players. Basketball players having more high socio-economic status than Volleyball players.
3) There was significant difference in middle socio-economic status found between Volleyball and Basketball players. Basketball players having more middle socio-economic status than Volleyball players.
4) There was significant difference in Low Socio-economic status of Basketball and Volleyball players. Volleyball players having more Low Socio-economic status as compared to Basketball players.

Finally, Despite the limitation of this study, the results provide a useful insight into the Socio-economic Status of Volleyball and Basketball players, this results also provides a useful insight into comprised the Socio-economic status of the players of two or more games. The experience of the investigator during the period of this study as well as the findings of this study may serve as a guide line for the research worker in the field of physical education and sports.

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