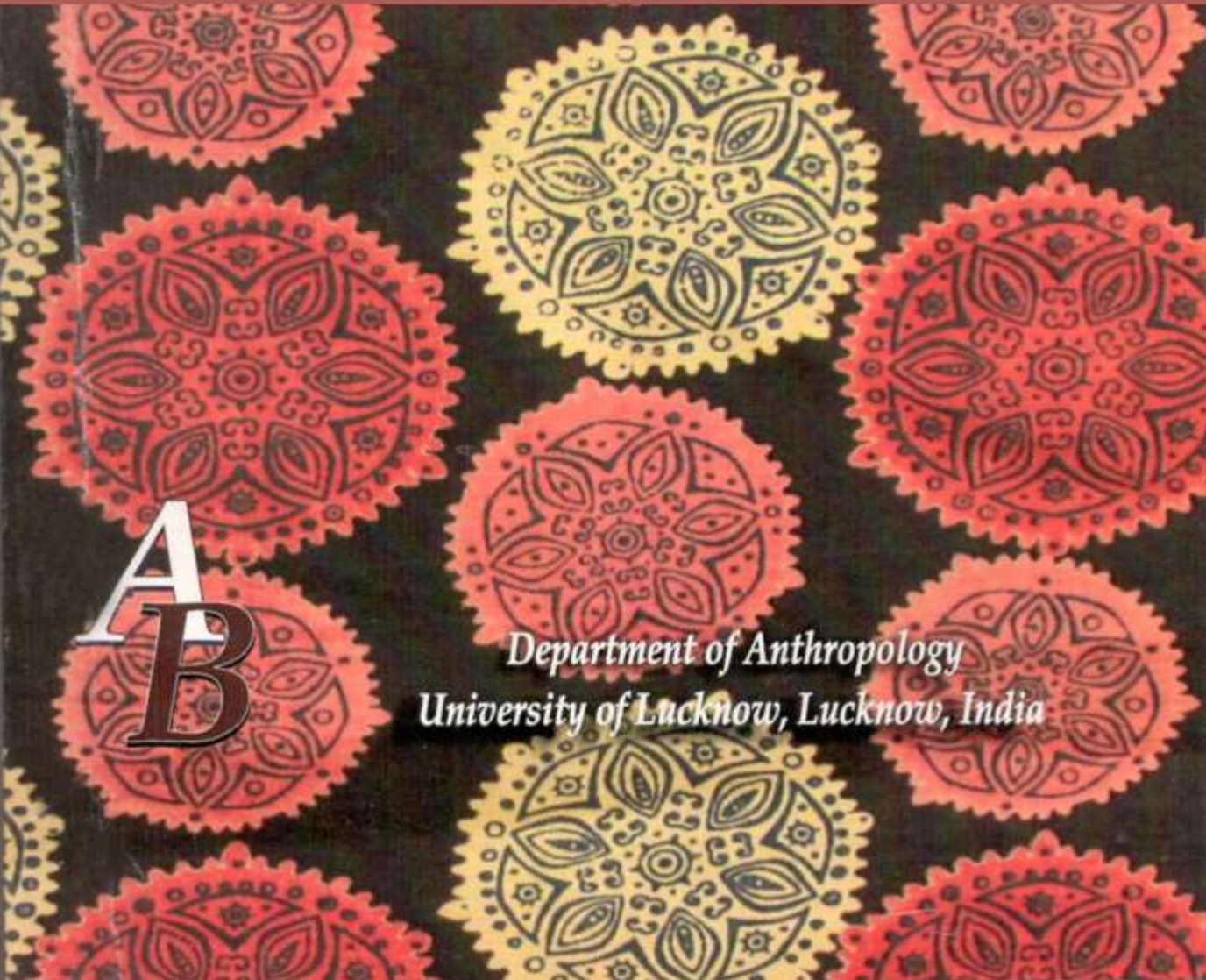


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Use of Social Media and Its Perceived Influence on the Academic Performance of University Students

Syed Mohammad Azeem*

ABSTRACT

The present study explores the use of social media and its perceived influence on the academic performance of the college and university students in the Kingdom of Saudi Arabia. A questionnaire was distributed to students across the country with the help of students' network. 362 responses were collected and analyzed. The use of social media is found significantly negatively related to academic performance. The regression analysis has also found the social media as a significant predictor of the academic performance of college and university students. No significant difference is obtained between male and female students on their perception about the use of social media and its influence on academic performance.

Keywords: Social media, academic performance, the time spent on studies, the time spent on social media.

1. Introduction

The technological advancement over the last two decades brought tremendous changes in every field of life. Enormous improvement has been taken place in the field of communication technologies as well. People are well informed about what is going on globally and keep exploring the developments taking place around the world. Growing developments and the use of internet technology made the communication faster and helping the users in many ways. Several social networking sites are being used by people around the world to interact with friends, colleagues, and families.

Rapid developments in mobile devices and user-friendly apps for various purposes have revolutionized the phenomenon of social networking. The use of social media is getting

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more popular among the students as it is providing opportunities to communicate, teach and learn through the use of inexpensive apps.

Almost all the college and university going students are having a membership to a popular social media sites i.e. Facebook, Twitter, WhatsApp etc. The advanced mobile gadgets and the speed of the internet giving an advantage to students for being connected to the world. Students have access to what they need academically or personally from the internet through sophisticated and advanced smartphones they carry. They are spending more time with the mobile set rather than interacting physically with the people around in a variety of situation they encounter every day. They are more interested to interact virtually than physically. Their friend circle has been expanded globally and engaging them more often chatting with them. This increasing use of social media and mobile have become a source of worry to many who have observed the changes in students' behavior which may cause detrimental effects on their academic learning and performance.

It has been noticed or observed that students are addicted to social media and frequently tempted to use their mobile in whatever situation they are. Using mobile phones during the lecture, labs, seminars, free time etc. The time spent on social media using smartphones varies from person to person. The more time students spend on social media the less time they left with for other required academic activities (reading books, preparing the assignment, preparing for the exams etc.). This increasing use of social media may cause poor academic performance of the students.

1.1 What is Social Media?

According to Kaplan and Haenlein (2010), social media is internet-based applications that allow the creation and exchange of content which the user-generated. Social media provides an opportunity to the users and communities to share content like video, photos, images, text, ideas, insight, humor, opinion, gossip, news on a regular basis (Drury, 2008). Social media uses mobile and web-based technologies to develop a platform which is highly interactive for the users to create, share, discuss and edit the content. The websites are not only providing information but also allowing the users to interact. The content created by the users are the source of attracting the other users to develop communities. Social media has become very popular in recent past and reduced all the barrier which were hindering people to communicate expensively. Facebook is reaching nearly 2 billion users worldwide (<https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>). On the other hand, Twitter reported nearly 330 million active users during the 3rd quarter of 2017 (<https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/>).

1.2 Academic performance

Academic performance can be defined as the level of student's learning outcome which is measured according to the evaluation process set by the institution i.e. GPA (Grade point average). A student has to maintain a certain level of GPA in order to be eligible for progressing toward the completion of the enrolled program. To keep a track on the student's academic performance an assessment process is adopted by the institution.

1.3 Social Media and Academic Performance

Since the internet and the use of social media have become a necessity of every individual, the university and college students cannot be escaped from it. In fact, the majority of the social media users are university/college students who use internet for entertainment and communicating with friends and families.

2. Literature review

Numerous research studies have been carried out to investigate the effects of social media on the academic performance of the students. Madge, Meek, Wellens, and Hooley

(2009) found a negative relationship between Facebook and the academic performance of students in U.K. universities. Junco (2012) reported that the time spent on Facebook was significantly negatively related to college students' GPA. Englander, Terregrossa, and Wang (2010) reported that social media is negatively related to academic performance of students. Karpinski and Duberstein (2009) suggested that social media users devote lesser time to their studies in comparison to nonusers had lower GPAs. Moreover, social media is found to be the major distraction of current generation. Hong et al. (2012) found that the daily use of mobile phones is associated with the academic difficulties among the students. Jacobsen and Forste (2011) reported a negative relationship between mobile phone and academic achievement. Alwagait et al. (2014) reported that increased use of social networks decreases the academic performance of students. Jamal (2015) reported that the more students use social media the lower their grades will be.

Several other researchers have found no relationship between social media usage and grades (Kirschner & Karpinski, 2010; Kolek & Saunders, 2008; Pasek, More, & Hargittai, 2009). A number of researchers have found a positive relationship between the use of social media and the academic performance (Chen & Peng, 2008; Pasek et al., 2009; Bashir et al., 2008).

Excessive use of social media or internet can adversely affect physical as well as mental health of the user which may further disrupt the family life as well. The internet addiction can cause a drop in time spent on studies, a major drop in grades, low interest in extracurricular activities and lack of interest in attending classes (Akhtar, 2013). Too much use of social media has reported a negative impact on students' physical, psychological and family health. In addition to that sleep deprivation, insomnia and chronic illness have also been reported (O'Keeffe and Pearson, 2011).

In light of the literature review, it is clear that the effects of social media are not universal rather contextual. The present study is aimed to explore the opinion of students on the use of social media and its influence on their academic performance in Saudi Arabia. Saudi Arabia is one of the affluent countries where the per capita income (nominal) is & 21,100. Students studying in a government institution, receive a stipend (approximately SAR 1000) for attending the colleges and universities until they graduate. This gives them enough power to purchase sophisticated mobile gadgets and pay the internet bills. They are well connected with the family and friends through the social media apps.

3. Methodology

Sample: The data were collected from 362 college and university students. 197 male and 165 female students responded to the distributed questionnaires. Respondents were selected by adopting the convenience sampling method.

Tools: A questionnaire was developed by the researcher by including a number of questions to measure the use of social media and internet which somehow relate to students' academic experience. Items were developed after thoroughly reviewing the literature. The questionnaire was developed in English and later translated into Arabic for reducing the language barrier in order to get the valid responses from the chosen respondents. The questionnaire consists of 20 items which include the gender, age, time spent on studies, time spent on social media, reasons for using social media, the influence of social media on academic performance. The Cronbach's alpha is calculated to measure the reliability of the scale which is 0.75.

4. Results and Discussion

Table 1 indicates the mean scores of the variables used in the study. The mean scores for time spent on studies (2.67), use of social media (2.42), and influence on academic performance (2.98) are below 3 out of 4. It seems from the responses received that the

students are not heavily using social media and devoting enough time on studies too. This may be the reason for amoderate score on the influence of social media on academic performance.

Table-1: Descriptive Statistics (N=362; Male=197, Female=165)

Range	Number of Respondents	Percentage(%)
Age		
Less than 12 years	1	0.29
Between 13-16	29	8.01
Between 17-20	116	32.04
Between 21-25	168	46.40
More than 25	48	13.26
Time spent on studies		
Less than 1hour	157	43.37
Between 1-3 hours	143	39.50
Between 4-6 hours	47	12.98
More than 6 hours	15	4.15
Time Spent on Social Media		
Less than 1hour	46	12.71
Between 1-3 hours	122	33.70
Between 4-6 hours	100	27.62
More than 6 hours	94	25.97

Table-2: Descriptive Statistics (N=362; Male=197, Female=165)

	N	Minimum	Maximum	Mean	Std. Deviation
Use of social media	362	1.00	5.00	2.42	.823
Influence on academic performance	362	1.00	4.56	2.98	.699
Valid N (listwise)	362				

Table 3 shows the correlation between the variables used in the study. Age was found significantly negatively correlated ($r = -.125^{**}$) with the time spent on social media. It means as the students grow the time they used to spend on social media is reduced. There is a significant and negative relationship between the time spent on studies and use of social media ($r = -.283^{**}$). The respondents are of the opinion that the use of social media distract them from studies and eventually have less time left for studies. The time spent on studies is also reported to be negatively related to academic performance ($r = -.189^{**}$). Less time on

studies negatively influences the academic performance. The use of social media is also found significantly negatively related to academic performance ($r = 0.421^{**}$).

Table-3: Correlation

	1	2	3	4	5	6
Gender	1					
Age	.301**	1				
Time spent on social Media	.339**	-.063	1			
Time spent on studies	.058	-.125*	-.071	1		
Use of social media	-.082	.010	.024	-.283**	1	
Influence on academic performance	.021	.001	.031	-.189**	-.421**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4 shows the regression analysis. The table reveals that use of social media is the significant predictor of academic performance.

Table-4: Regression Analysis

Dependent Variable	Independent Variable	β	t	Sig.
Influence on Academic Performance	Gender	0.087	1.156	.248
	Age	0.005	0.105	.916
	Time spent on social media	-.004	-.093	.926
	Time spent on studies	-.054	-1.547	.123
	Use of social media	.342	8.039	.000

R=0.430; R²=0.185

In order to find the significant difference between the two samples (male and female), the Levene's t-test was applied (see table 5 and 6). The group statistics indicate that there is no such difference found between the male and female respondent with regard to use of social media, their perception of the influence on academic performance, and the time spent on studies.

Table-5: Group Statistics

	Gender	N	Mean	Std. Deviation
Academic Performance	Male	196	2.9646	.74954
	Female	166	2.9940	.63774
Use of social media	Male	196	2.4846	.85006
	Female	166	2.3486	.78970
Age	Male	196	3.8724	.77065
	Female	166	3.3795	.79044

Time sent on social media	Male	196	1.5204	.69768
	Female	166	2.0843	.86976
Time spent on studies	Male	196	2.6173	.99821
	Female	166	2.7349	1.01006

There is a noticeable difference with regard to the time spent on social media. Female students reported spending more time on social media than male students. The Levene's test shows that male and female student do not differ significantly on their perception about the influence of social media on academic performance. Both the samples are significantly different on age. The samples are found different on the time spent on social media by chance.

Table-6: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Academic Performance	Equal variances assumed	3.622	.058	-.398	360	.691	-.02944	.07389	-.17476	.11587
	Equal variances not assumed			-.404	359.99	.687	-.02944	.07291	-.17284	.11395
	Equal variances assumed	.809	.369	1.567	360	.118	.13604	.08680	.03467	.30674
	Equal variances not assumed			1.577	356.90	.116	.13604	.08628	.03363	.30571
Age	Equal variances assumed	5.255	.022	5.993	360	.000	.49293	.08225	.33118	.65469

Time spent on Social media	Equal variances not assumed				5.980	347.202	.000	.49293	.08243	.33082	.65505
	Equal variances assumed	.912	.340	-6.84		360	.000	-.56393	.08241	-	-
	Equal variances not assumed										
	Equal variances not assumed										
	Equal variances not assumed										
	Equal variances not assumed										
Time spent on studies	Equal variances assumed	.002	.966	-1.11		360	.267	-.11759	.10587	-	.09060
	Equal variances not assumed										
	Equal variances not assumed										
	Equal variances not assumed										

5. Conclusion

The study was intended to measure the perception of college and university students in Saudi Arabia on the social media use and their academic performance. The findings of the study showed that the respondents perceived that the use of social media negatively affects the academic performance of the students. Through the regression analysis, a conclusion can be drawn that excess use of social media is a significant predictor of the academic performance. Male and female may or may not differ in their use of social media especially the number of hours spent. The more time students spent on social media the greater the risk they have to be distracted from their studies and eventually get poor grades. This topic is being extensively explored as it is not only affecting the academic performance but other social as well as personal matters of life.

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Effects of selected yogic practices on blood pressure among school boys

Durvesh Kumar*

Dr. Rajendra Singh*

ABSTRACT

The purpose of the study was to find out the effect of Yogic practices on Blood Pressures among intermediate school boys. For this purpose the 60 college students in the age group of 14- 18 years at Dharm Samaj Inter College Aligarh were selected at random as subjects and were divided into two groups namely experimental group and control group. The training programme was for a period of twelve weeks. During this period, the control groups were not given any training. The data were collected on the blood pressure variable (pre test) as well as after twelve weeks yogic training (post test). Paired sample 't' test was used to find out significant difference between the pre- and post-test means and significant difference that was exists between the yogic practice group and control group on blood pressure variables. The significance was set at 0.05 level. The result of the study shows the yogic practice has decreased the Blood Pressure significantly. It was concluded from the results of the study that yogic practice has brought positive changes in Blood pressure (Systolic and Diastolic blood Pressure) and it was due to the performance of various Asanas, Pranayama and Yoga nidra.

Keywords: Yogic Practices, Blood pressure.

Introduction

Yoga is a process of control over the mind stuff, as defined by Patanjali in his second aphorism in Patanjali Yoga sutras: 1.2 Satyanand Saraswati (2012). The word "Yoga" is derived from the Sanskrit root "Yuj" which means yoke, uniting, or connection. Muktibodhananda S. (2013), in Hath Yoga Pradipika, says, yoga is a union between the individual soul and the supernatural soul. It is a way of life, which can be practiced by any human being regardless of age gender and condition of health it is based on general physical

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mental practices, which operate all mankind alike. It is an inseparable part of the Indian life and culture. It has come down to us from ancient times with an unbroken tradition.

Yoga is an ancient system of self spiritual development which provides a holistic approach to man through its ideology and techniques. Nayak & Shankar (2004) Yoga is a science & its practice harmonizes the body and mind. Yoga is very useful for promoting total health. Yoga is alternative forms of physical activity that can help some individuals achieve the recommended level of physical activity. Yoga is increasing in popularity Chandler (2001) and Raub (2002). With a recent report suggested that 15 million Americans have practiced yoga at least once in their lifetime Saper et al (2004). It works effectively in the form of treatment in three ways - preventive, therapeutic, rehabilitation. Kreitzer (2005) Yoga therapy has proved its excellence in psychological disorders and hypertension. Hypertension represents one of the most prevalent old conditions in the Indian population. The main cause of high blood pressure is stress and tension. Yoga can be very effective in dealing with stress and blood pressure. It can fight for reasons, as well as the effects of hypertension and reducing blood pressure can stabilize blood pressure. Asanas calm their mind and make the nervous system regular and balanced, which controls the stress. The sympathetic and parasympathetic nervous system, which is involved in stress response, also gets stabilized in the practice of asanas resulting in regulation of the blood pressure. Asanas, which control blood pressure, belong to the forward bending asanas, the Supine, sitting and the inverse group. Although the forward bending is the fundamental posture prevailing by people suffering from high blood pressure, while adhomukha shavasana is the most beneficial posture for blood pressure. The horizontal position of the spine in these asanas allows the heart to slow down, because there is no tension to pump the blood against the brain's gravity. Heart rate and cardiac output slow down and blood pressure is controlled simultaneously.

Methodology

The study was formulated as a simple random group design, consisting of pre-test and post-test the subject were (n=60) randomly selected to equal group of school students age the age range from 14 to 18 years among the two groups the control group was strictly under control, without undergoing any yogic practices. The experimental group 'yogic group' had to undergo with the experimental treatments. Group A was provided asana pranayama and Yoga nidra to school boys for a period of twelve weeks and 5 days in a week from 7:30 to 8:30 o'clock A.M in the Dharm Samaj Inter College Aligarh Uttar Pradesh India. The control group was not allowed to participate in any of the training program except their daily routine works. The subjects were trend for a period of 12 week and after this period significant improvement was measured in the Blood pressure of school students. The data were analysed by applying paired sample t-test technique. The level of significance was set at 0.05.

Training Programme

Table no 1. Yogic Training Programme.

Asanas			Pranayamas	Yoga nidra
Shavasana	Garunasana	Janushirasana	Nadi-Shodhana	Yoga nidra in shavasana
Makrasana	Nokaasana	Shashankasana	Ujjayi	
Chakrasana	Padamasana	Brakshasana	Bhastrika	
Trikonasana	Bakasana	Pavanmuktasana	Shitali	
Dhanurasana	Bhujangasana	Mayoorasana	Sheetkari	
Sarvangasana	Matayasana	pashchimotanasana	Bhramari	

During the training period the yogic group underwent their respective training programme 5 days in a week for 12 weeks in addition to their regular daily routine on the training days, practices lasted in the morning from 7:30 to 8:30 A.M. The control group did not involve in any training program except their daily routine.

RESULTS

Table 2: Control Group of Systolic Blood Pressure

Groups	Mean	N	Std. Deviation	Std. Error Mean	Mean difference	t	p
Pre-test	114.93	30	11.39	2.08	.27	.119	.90
Post-test	115.20	30	7.47	1.36			

*The level of significance at 0.05 = p value .90

Interpretation: It is analyzed that the mean difference (.27) between pre and post test rating score is very low. The t-value is very low and its p-value is .119 which is lesser than our maximum acceptable level of significance (.05). It clearly shows that means of pre-test and post-test scores are statistically equal and whatever the difference they show, the difference is insignificant. The result of the Study indicates that absence of our interventions doesn't cause any significant level of change in systolic Blood Pressure among the adolescents. In other words, control subjects were unaffected in terms of systolic Blood Pressure scores.

Table 3: Experimental Group of Systolic Blood Pressure

Groups	Mean	N	Std. Deviation	Std. Error Mean	Mean difference	t	p
Pre-test	115.40	30	5.48	1.00	5.30	4.89	.00
Post-test	110.10	30	5.53	1.01			

*The level of significance at 0.05 = p value .00

Interpretation: It is analyzed that there is a positive mean difference of 5.30 from pre-test to post-test rating. It indicates that there is the decrease in systolic Blood Pressure score due to the delivery of yogic practices. The t-value is significant which specify that means of pre and post test scores were significantly decrease. It indicates that our intervention causes a significant level of decrease in systolic Blood Pressure among the adolescents.

Fig. 1: Graphical representation of Mean of Systolic Blood Pressure of both the groups.

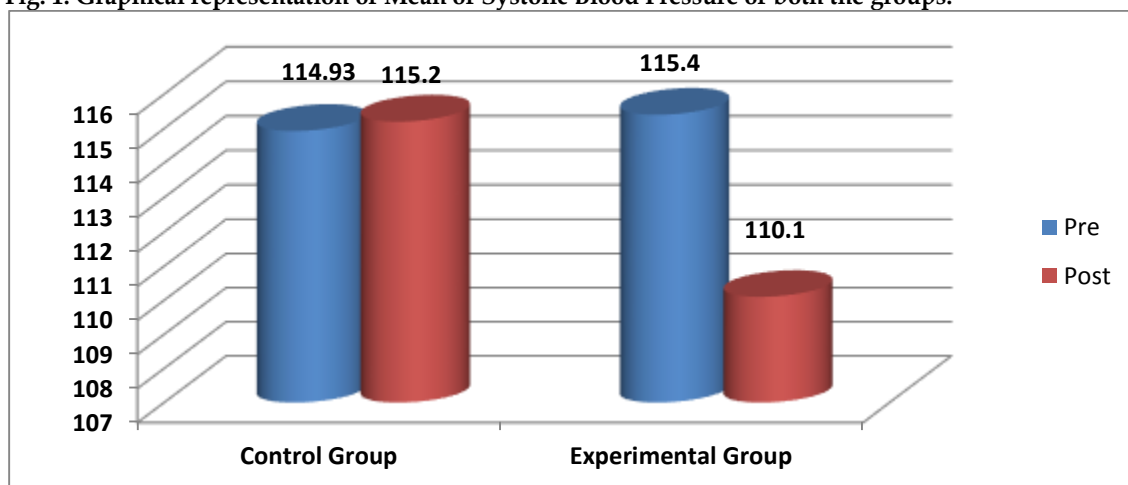


Table 4: Control Group of Diastolic Blood Pressure

Groups	Mean	N	Std. Deviation	Std. Error Mean	Mean difference	t	p
Pre-test	81.17	30	8.26	1.51	.40	.243	.81
Post-test	80.77	30	8.68	1.59			

*The level of significance at 0.05 = p value .81

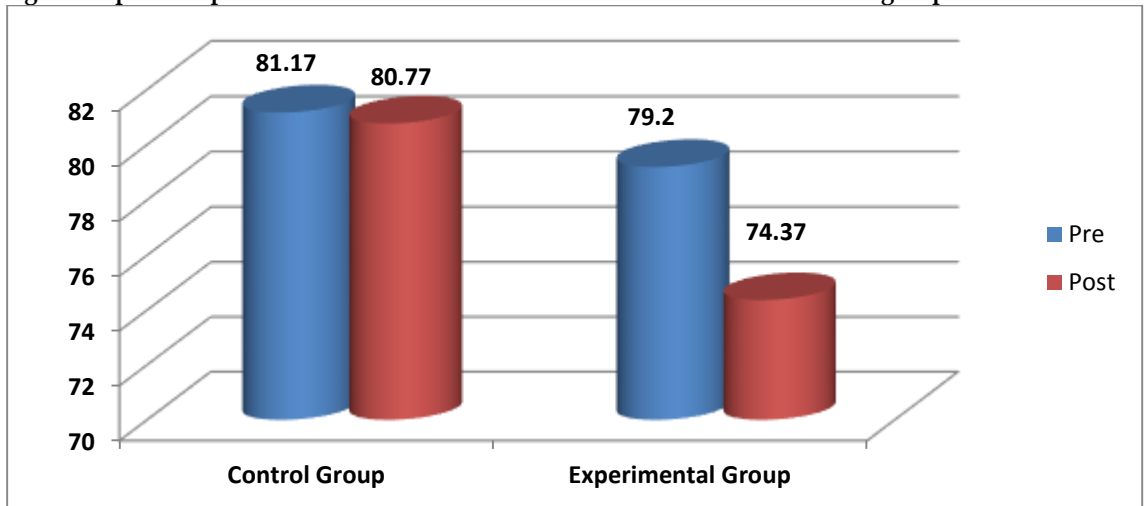
Interpretation: It is analyzed that the mean difference (.40) between pre and post test rating scales is very low. The t-value is very low and its p-value is .817 which is lesser than our maximum acceptable level of significance (.05). It clearly shows that means of pre-test and post-test scores are statistically equal and whatever the difference they show, the difference is not significant. The result of the Study indicates that absence of our interventions doesn't cause any significant level of change in diastolic blood pressure among the adolescents. In other words, control subjects were unaffected in terms of diastolic blood pressure scores.

Table 5: Experimental Group of Diastolic Blood Pressure

Groups	Mean	N	Std. Deviation	Std. Error Mean	Mean difference	t	p
Pre-test	79.20	30	4.77	.872	4.83	4.29	.00
Post-test	74.37	30	5.69	1.04			

*The level of significance at 0.05 = p value .00

Interpretation: It is analyzed that there is a positive mean difference of 4.83 from pre and post test rating. This indicates that there is the decrease in diastolic blood pressure score due to the delivery of yogic practices. The t-value is significant which indicates that means of pre-test and post-test scores are significantly decrease. It indicates that our intervention causes a significant level of decrease in diastolic blood pressure among the adolescents.

Fig. 2: Graphical representation of Mean of Diastolic Blood Pressure of both the groups.

Discussion

Wolff et al (2013) reported that a small yogic program for the patient to practice at home seems to have an antihypertensive effect, as well as a positive effect on self-evaluating quality of life compared to controls. This means that simple yogic practices may be useful as a supplementary blood pressure therapy in addition to medical treatment when prescribed

by first aid physicians. According to Sonwane & Mishra (2016) Yoga is a helpful intervention in hypertensive subjects. Yoga and pranayama are more beneficial to hypertensive subjects than normal individuals. Vungarala and Satyanand (2016) add that Yoga is a balance between mind, body, and soul and also it improves the energy levels of the body. Yogic practices include (asana, Pranayama, meditation etc.) also play an important role in reducing blood pressure by effective and non-invasive way. In accordance to our findings, studies done by Sundar et al, 1984; Murugesan et al, 2000; Dickinson et al, 2008; Schmidt et al, 1997; Joseph et al, 2005; Alexander et al, 1996; Steptoe, 1977; Patel & Marmot, 1988; showed significant improvement in Systolic, and diastolic Blood Pressure. Innes et al. (2012) suggest that yogic practices may offer a safe and sound body, beneficial for reducing sleep and mood disturbance, perceived stress, anxiety, and blood pressure in older women. Shantakumari (2012) reported that yogic intervention for 3 months showed a significant decrease in Systolic, and diastolic Blood Pressure from 141.71 ± 9.79 to 132.23 ± 7.89 mm Hg, DBP from 90.57 ± 4.07 to 85.49 ± 5.03 mm Hg and FBS from 155.86 ± 60.53 to 126.63 ± 40.59 mg%. Yoshihara (2011) indicated that the mental state can influence the hypothalamic-pituitary-adrenal axis and alter the cortisol levels. Cortisol, discharged from the adrenal cortex, is a biochemical index of HPA axis activation and is a significant marker associated with psychological stress.

Conclusion

12 weeks of yogic practices program for school boys to practice at school seems to have a positive effect on systolic blood pressure and diastolic blood pressure. This implies that yogic practices may be useful as an additional blood pressure therapy in addition to medical treatment when prescribed by primary care physicians. In this study we may concluded that Yogic practices can be advocated to improve the blood pressure among school boys and hence to prevent heart disease diseases in future. And it will definitely help to geriatric and medical patient.

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Urbanization and Marginalization: An Ethnographic Study of Assamese Waste-Pickers

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ABSTRACT

Urbanization is a sheer reality in the era of information technology and ultra modern world. The urban areas are accumulating almost all sorts of easiness of life. The growing dependability upon the machinery and manual work sought on the foundations of capital accumulation in urban areas stems another feature of city culture, that is, marginalization. Hence, the cities in India and the developing world are witnessing the features of a city as well as a village within the city. The urban areas, thus, record both the features in it. Luxurious life for rich and survival for poor has become a grave reality in urban areas. Efforts and struggles for survival bear the multiple pains not only for a generation but the generations to come. Humans in the trap of the phenomenon try to contain their personalities reluctantly to start a fresh in cities for the survival and sustenance of their generation. The article presents a narrative account of migrants' lives as waste-pickers. The methods used are mainly case studies supplemented by group discussion in Chandan, one of the areas of Lucknow where Assamese waste-pickers live and earn their livelihood with a constant fear of eviction.

Key Words: Marginalization, Culture, Organized Structure, Waste-Picking, Contractor

Introduction:

The survival does not involve only earning and filling their bellies rather it contains the proportions of minor wishes of clothing and eating rich food items, i.e., vegetables beyond potato, flesh beyond minor fishes, beverages beyond cutting-tea, travelling beyond general compartments, and many more. The lives of complexities, struggle on daily basis throughout lives, crushing of desires, keeping themselves disciplined and following the monotonous route of work and family lives made the distress people quite, calm and highly patient in their approaches towards group life and culture of their own. Assamese are migrated groups of such sorts who are concentrating to re-build their life and future generations. People are always the sufferers in one way or the other. The reasons of migration are many. The border area between two districts of states or countries always suffers in magnitude. The suffering may be concerning with infrastructure development, water and land agreement between nations.

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India and Bhutan have an agreement of sharing information of release of water from its dams, thus, waters flows down to Assam. In 2004 an artificial lake on the upstream of Kurichu dam, which is located north of the international border shared by Assam, burst resulting into sudden flooding of Barpeta and Nalbari districts of the state. Authorities of the two districts, Barpeta and Baksa said that there was no prior warning by Bhutan before releasing water. As a result, water flooded Manas and Beki rivers, the two principle tributaries of Brahmaputra River in lower Assam. The release of water by Bhutan was unannounced and together with the incessant rains affected more than 24,000 populations. (<https://timesofindia.indiatimes.com/city/guwahati>).

As a result, the poor conditions of people get multiplied in such accidental ignorance. The fact is well known, that the incidence of poverty is higher in rural areas of almost all developing countries. However, in aggregate most of the people still live in rural areas. Thus, urban areas account for less than half about 30% on average of the poor. The population of developing world is urbanizing quite rapidly. According to United Nations, in 1995, 38% of people lived in urban areas, and this is projected to rise to 52% by 2020 (**Ravallion, 2001, p. 435**). The continuous plight of poor people led them migrate to urban areas. The same happens with unskilled, uneducated and burdensome rural people of Assam. The migration of Assamese attracted the attention of scholar to study migrant population living in cities like Lucknow.

The fact remains that the study of cities is in many ways a study of human development. The very term 'civilization' is linked etymologically to the word 'city', while 'urbane' is still a synonym for sophistication. The city is thus a concrete expression of accomplishment, a magnet to which migrants are still attracted from rural areas, places where they can search for work and find better medical care and higher education. It has become a cliché to point out that, for the first time, our global population is now more urban than rural. While this is correct, it also hides enormous variations from nation to nation, some of which are still predominantly countries of small towns and rural production, while others are almost entirely urbanized. For many critics of urbanization, it is this development that has shaped our planet in negative ways, destroying natural habitats and species in the process. Yet this overlooks the reality that cities are efficient places in which to live and to work, and in which to obtain goods and services. These are the places where things happen—economies, government and human societies evolve for the most part in urban places and it is there that innovation occurs, remedies are tried and tested, and people interact with those that are like them and those who come from half a world away (**Kirby, 2012, p. S3**).

Achieving the United Nation's Millennium Development Goals (MDGs), the international community's unprecedented agreement on targets towards the eradication of extreme poverty and hunger, will depend to a large extent on how well developing country governments manage their cities. Cities are currently home to nearly half of the world's population and over the next 30 years most of the two-billion-plus person increase in global population is expected to occur in urban areas in developing world. At the beginning of the twentieth century, just 16 cities in the world—the vast majority in advanced industrial countries-contained a million people or more whereas today, almost 400 cities contain a million people or more, and about seventy percent of them are found in developing world (**Cohen, 2006, p.64**).

For many observers, however, the greatest concern is surely the massive increase in the numbers of the urban poor. Available data suggest that in a large number of the world's poorest countries, the proportion of urban poor is increasing faster than the overall rate of urban population growth. Yet each year cities attract new migrants who, together with the increasing native population, expand the number of squatter settlements and shanty towns,

exacerbating the problems of urban congestion and sprawl and hampering local authorities' attempts to improve basic infrastructure and deliver essential services (Cohen, 2006, p.64).

Thus, in this context, the current paper strives to ethnographically present a picture of Assamese migrants and a portion of their life as migrants in the growing capital city like Lucknow. The study population is mostly migrated from Barpeta district of Assam and settled down temporarily in different pockets of the capital city of Uttar Pradesh.

Theoretical Perspective

Manuel Castells captures diversity and global reach under the label 'the Fourth World'. He observed that 'a new world; the Fourth World has emerged, made up of the multiple black holes of social exclusion throughout the planet. The Fourth World comprises large areas of the globe mainly impoverished rural areas of Latin America and Asia and Saharan Africa. But it is also present literally in every country, and every city, in this new geography of social exclusion. They are the majority in some areas, the minority in others, and a tiny minority in a few privileged contexts. Everywhere, they are growing in number, and increasing in visibility. The selective triage of informational capitalism and the political breakdown of welfare state, intensify social exclusion.

Objective of Study

The objective was to peep in to the lives of Assamese in Lucknow through scientific approach. The migrated group of people from faraway places of Assam finds their shelter in varied pockets of Lucknow city. One of the features of Assamese is the migration with family. The women and children, thus, migrated to the city with a particular objective of earning with husband. The city provides opportunity for women, children to equally participate in the system of earning through waste-picking. The group of people keeps earning as the only objective of their migration. Hence, it is pertinent to find out features of their life and livelihood before and after migration.

Methodology

The technique adopted in the process of data collection was primary qualitative method. The data collected and presented in current paper is through direct observation and case studies. As a result, the research paper is prepared by taking into consideration a detailed case study and it's analysis to present lives of Assamese migrants in growing urbanized capital city of Uttar Pradesh.

Review of Literature

Review of literature enables the researcher to update his knowledge and understanding of research topic. Literature review indeed is a logical presentation of earlier researches and work. This workout aims at examining the theories, various interpretations, and explanations produced by earlier thinkers and researchers in significant discipline. A scientific piece of research is supposed to attempt to fill identified gaps by new interpretation and fresh empirical evidence. The present researcher, in view of the guiding principles, has tried to go through possible and available work and literature on the research topic.

Rowena Robinson in her paper, "*Religion, Socio-Economic Backwardness & Discrimination: The Case of Indian Muslims*" says that the paper is based on data about Indian Muslims collated from the Rajender Sachar Committee Report (SCR) as well as from the 2001 Census and other recent materials. It was done to relate the themes of marginality, human security and discrimination on the basis of religion. The fact remains that the literacy and educational status of Muslims is particularly low. The literacy rate among them is far below the national average and this gap is greater in urban areas and for women. She also argues that the Mean years of Schooling (MYS) and attendance levels of Muslims are low in absolute numbers as well as in comparison with other socio-religious groups.

Steven Wilkinson in his article *"A Comment on the Analysis in Sachar Report"*, analyses that the Sachar Committee was asked to do two things. It was charged with collecting systematic information on Muslims' socio-economic status. The other responsibilities were public and private sector opportunities for Muslims in comparison to other communities. The Committee was asked to consolidate, collate and analyse available information/literature to identify areas of intervention. The intervention was basically by the government to address relevant issues relating to social, economic and educational status of Muslim community. The author appreciates that the Sachar Committee deserves much praise for sparking much wider public debate on the causes of Muslims' relatively poor socio-economic status and the steps needed to improve things. Wilkinson explores the methods used in the report but critically assesses that the report tell us far less than we might wish.

Rowena Robinson in the article *"Indian Muslims: The Varied Dimensions of Marginality"*, examines the social, political and economic profile of Indian Muslims emerging from the SCR. This article also attempts to relate the SCR data and other documents to the human security and development concerns of Indian Muslim communities. Within this framework, questions of affirmative action are also raised. Muslims are clearly on the margins of the structures of economic, social and political relevance in India.

Zoya Hasan in her article entitled *"Reservation for Muslims"* argues that the affirmative actions are taken to address the socially, disadvantaged and discriminated group of society. This will encourage the disadvantaged sections of society to enjoy equal opportunity for participation in governmental institutions. The government and courts have rejected the use of religion as a criterion for selecting minority groups as backward for the purpose of special safeguards for the disadvantaged. It was done on the basis of reasons that it was incompatible with secularism, it would undermine national unity and it is believed that Muslim community in the absence of caste system within the community it is not entitled for special measures.

Manish, K. Jha and Pushpendra Kumar in the article entitled as *"Homeless Migrants in Mumbai"* find that labour migration from rural to urban areas is a persistent feature of developing countries like India. Mumbai, like many big and thriving cities, has been attracting a large number of migrants from all over the country. A substantial chunk of the migrants, belonging to poor working classes, are unable to rent or own a home in the city. They are forced to live either in public space such as pavement by the roadside, or at workplaces, or in slums or shelters of various kinds which do not qualify to be called homes. The migrants are predominantly from rural areas across the country, constituting two-thirds to three-fourths of all migrants. Work/employment and business were cited as the main reasons for migration in the 2001 Census.

Mitra, Iman Kumar in his article entitled *"Recycling the Urban, Migration Settlement and the Question of Labour in Contemporary Kolkata"* seeks to bring together two aspects of life, livelihood, and habitation practices in the city-the phenomenon of urbanization and that of rural-to-urban migration. Hence, the chief purpose of this exercise of writing an article is to investigate the location of the category of "migrant worker" in the broader and adjacent discourses of urbanization, to propose a scheme of research which would explore the politics of defining and stabilising this location, and find out its implications for social justice for the urban poor. The particular area of justice pertains both to the incidence of violence against the so-called "outsiders" perpetrated by the self-proclaimed "sons of the soil" and the vulnerability of the workers coming to the city in search of a better life and better employment opportunities in the face of these incidents.

Bagchi, Debarati in the article entitled *"Street Dwelling and City Space: Women Waste Pickers in Kolkata"*, this article locates the migrant women waste pickers among the

pavement dwellers and homeless people residing in a particular area of Kolkata. The article seeks to understand the processes and structure of migration, occupation, life and labour conditions, and vulnerabilities of this group and whether they have access to infrastructure and resources. The author by the study seek to understand the territory, family structures, and the pattern of shifts in occupation taking place in and around a particular dwelling area.

Culture and Change: A Life at Lucknow

The researcher visited the area for the purpose of data collection. The researcher accompanied with Mr. Jamaluddin, 48 years, wearing *Kurta*-apron (*Lungi*), Islamic skull cap, small beard on the face and a muffler wrapped from head to face suggested to visit the market in the village, "*Gaon*". They call their ghetto as "*Gaon*". The researcher with him began moving on mud road full of scraps, mud clad innumerable number of scattered polythene, pieces of clothes in dirt, land somewhere wet and rest is uneven.

The scene seems to be just opposite to the look in modern scenario, where almost all people wish to have on-road house, shops, offices so on and so forth facing the front of the road. But the Assamese do it just opposite. The front is used as the back of the house. The researcher observed and found only shops, which opened its front on roadside. On both side of the road, back portion of huts (*jhuggies*) was on front and the entrance was from inside. The rented land is uneven and concrete construction is not feasible, the habitants, thus, utilise land as a plain paper sheet and free to form settlements as per their convenience. Everything i.e., huts, shops, market, source of water supply, open sky hearth (*chulha*), partitioned rooms, open-sky toilet, so on and so forth are temporary in nature.

Hence, Assamese do not try to invest much on concrete settlement. In fact, they are not entitled for that. The land is on rent; the nature of employment is filthy and is being performed out of compulsion. As a result, they construct bamboo walls covered by worn out *Sarees* and other materials. This is done to secure privacy and space to collect, categorise, segregate, count, pack and transport waste (*maal*) through the public carrier frequently visiting the "*Gaon*".

It was the place where we get stopped and sat down inside the bamboo-clad-shop. The shop was facilitated with wooden benches and tables. On the front a dish television was there to entertain, educate through news to customers. Two women were engaged in crushing rice through the help of an indigenous, traditional method of crushing rice. The wooden instrument is called as "*Dhekchi*". "*Dhekchi*", in this traditional instrument a heavy log supported by two medium size logs was pushed through the help of leg. A woman was pushing it while another levelling uncrushed rice to get properly crushed and converted into powder. The rice powder was at the same time being separated through strainer for final use of cooking. The crushed rice is used to prepare rice eatables called as "*Peetha*". The eatables like *Peetha* and tea are common and cheap items of refreshment affordable by small children as well. All ages of people enjoy the eatables at tea-shop. In order to understand the condition and faces of poverty the author presents a case study and its analysis to find out the past and present compulsions which forced them to join hands in waste-picking merely by migrating from rural to urban milieu just for survival.

Case Study 1:

The researcher took an interview of an Assamese and presented in the form of case study and analyses the collected data.

Landlessness

Noor Mohammad, age 52, inhabitant of a village in district *Barpeta*. He is of rural origin. The condition of his family was very poor in his native district. He is suffering from

hearing problem. Noor Mohammad does not possess any yard (*Bigha*) of land even he is not having his house. He was in a very poor condition and lived in a makeshift house in his village. The sources of earning were very less. He had to work for whole day to receive a kilogram of rice and a few coins. For earning he used to go to several miles on foot.

Flood and Dead Body

At the time of flood in 2004 his area was dip in water up to 3-4 feet. In the same year his father died and they had to go for 4-5 miles away to bury his body at a raised land where water did not reach. The responsibility of household along with his siblings was on the shoulders of two brothers including him as well.

Employment at Native Place

Noor Mohammad had started another work of caretaker at the house of one master Sajid-ul and received Rs. 100/- per day. He worked over for many years and had taken a lot of efforts and pain to let study his younger brother. He got employment (*Chakri*) and separated himself from others after completing his graduation and left them at their own fate. Thus, he decided to come to Lucknow on the pursuance of his elder brother and reaches Lucknow with his wife and small children.

Employment at Lucknow

He says that it was the time when he was not having even such amount of money to purchase salt for the family. In that situation neither money nor hut was there to live and eat. Out of compulsion they started working as waste-pickers which do not require investment. Now their life has changed and they do have their own rented hut, shop, daughter get married, and still earning to eat three times full of belly. They are of the opinion that they are happy and lives better than the life of his younger brother at Assam.

Photo 1: Dumping ground at Chandan: The Assamese female waste-pickers



(Source: Field data, Feb. 2018)

Analysis of the observational account of Assamese Migrants'

The observational account of Assamese in Chandan ghetto, tells a story of distress migration. The distress is of multiple-faces. The legacy of their being people with stigma, negligence by state, status of poor origin, non-represented in assemblies and Parliament, association with a particular community and stigmatised as responsible for partition of land, and moral-religious degradation, lack of leadership among them and loss of hope of receiving international help and support keep them mum and compelled to think about survival not the mean work and dignity. The migrants are mostly uneducated; engulfed with issues at family, community and country level.

Assamese in rural areas observed to be without land resource and even without shelter. In such a juncture, migration to other city is not a challenging task. The hope, however, is always a motivating factor behind moving to city with human resource of the family. The waste-picking offers work without any condition. A person need not to be skilled, educated, civilized, rather only in grave need of its sustainability. The picking of waste does not require investment rather it pays back handsomely. The hard-worker, disciplined, and target-oriented people have a good weight in the field of waste-picking. The migrants from Assam easily convince them to engage in the work, out of sheer need of earning and living a life with full belly. They console them to remain in work with a hope of saving money, eating food items, wearing cloths, and have a shelter. The waste-picking provides opportunity not to a particular kind of migrant but all physically fit Assamese migrants. They earn multiple of currency notes here on daily basis in comparison to earning at their native place. Thus, the life at ghetto in city in monetary sense is better than the life in rural area.

The fine part of their migrant life is the resemblance of Assamese village flavour within the city. They may have not to compromise much about their culture of food and clothing, and community feeling. They do not feel much burdensome in the presence of Assamese quacks, Assamese *jadi-buti* for treatment of disease, eatables, marriage ceremonies within the Assamese migrants, availability of female Assamese cloths, betel-nuts from Assam, availability of fish-rice, and bamboo-clad all housing and storage structure. Hence, slowly and gradually they assimilate in city culture, Hindi language speaking and above all growth of their children and saving by waste-picking hides all short comings of filthy work. They say that any work is not small, small is our thinking.

Conclusion

The era of agriculture economy of many countries of developed and developing world has witnessed a paradigm shift and rush to industrial economy. The shift normally brings motivation, pursuance for change in attitude, thinking, vision and adaptability for new arrivals. There are people or groups of people who are quick in reception of new additions in either agriculture economy or industrial economy or in use of information technology. Hence, people, place state and nation experiences such practices. Some receives updated knowledge with open heart, mind and rest pointed out doubts and question upon its utility. The differentiation starts from here and a gap could be seen in varied spheres of life. The differentiation might be of money, power and survival. This gave birth to marginalisation and compulsion for acceptance of anything just for survival. Thus, the fourth world came in existence in almost all over the world. The living conditions compelled the poor and marginalised not to have a concrete and settled means of livelihood as well as many more threats in life on routine basis.

The migrants stay is temporary in essence; the citizenship right is at stake, surety of livelihood is uncertain. More spatially concentrated and visible forms of urban poverty are likely to generate new pressures on governments to respond and in ways that may or may not be coincident with good policies for overall poverty reduction (Ravallion, p. 436). This

happened with migrant Assamese. If well managed, cities offer important opportunities for economic and social development. Cities have always been focal points for economic growth, innovation, and employment. Indeed, many cities grew historically out of some natural advantage in transport or raw material supply. Cities, particularly capital cities, are where the vast majority of modern productive activities are concentrated in the developing world and where the vast majority of paid employment opportunities are located (Cohen, 2006, p.64). Thus, Assamese found it safe to migrate with family members to the city like Lucknow to work which does not require education, money for initiating work, concrete houses to live so on and so forth. However, a minimal number of migrants are able to think upon education of their children and coming out of the work in which they are engage. The first and foremost objective of migrants especially distress migrants is to think for survival and not education, religion, or nation.

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History of Opioid Addiction and Steps Taken for De-addiction

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ABSTRACT

Opioids are one of the world's oldest known drugs. The medical, recreational, and religious use of the opium poppy is going on since centuries. In the 19th century morphine was isolated and marketed. Synthetic opioids were invented in the 20th century.

Non-clinical use of opioid was criminalized in the United States by Harrison Narcotics Tax Act of 1914, and by other regulations and ruling worldwide. Since then, nearly all non-clinical use of opioids has been barred from approval of nearly every social institution. However, in United Kingdom the 1926 report of the Departmental Committee on Morphine and Heroin Addiction under the Chairmanship of the President of the Royal College of Physicians reestablished medical control and introduced the "British system" of control, which lasted till the 1960s. In the U.S. the Controlled Substances Act of 1970 markedly relaxed the harshness of the Harrison Act.

Before the 20th century, institutional approval was mostly higher, including in Europe and America. In some cultures, opioid approval was significantly higher than approval of alcohol. This lead to large scale problem of opioid addiction. Subsequently various treatment options for opioid withdrawal and opioid addiction have been introduced.

Key words: Morphine addiction, Opioid withdrawal, History of Opioid abuse, Drug dependence.

For thousands of years, humans have used drugs of one sort or another. The use and misuse of narcotics had been known since 4000 B.C., however, it was in the 19th century A.D. that active substances of poppy, a well-known narcotic, were extracted. Then followed a time when some of these newly discovered compounds like, morphine, laudanum, cocaine were totally unregulated and freely prescribed by the physicians for a large variety of ailments. They were available in patent medicines and sold by travelling tinkers, in medical stores, or they arrived through the mail. During the American Civil War opium dens flourished¹, there was free distribution of morphine, and wounded veterans returned home with their kits of morphine and hypodermic needles.

As long as 3400 B.C., the poppy plant was grown in the lower Mesopotamia region. The most ancient testimony related to the opium poppy till date was carved in cuneiform

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script on a small white clay tablet during the end of the third millennium BC. This tablet was found in 1954 at the time of excavations at Nippur, and is presently placed at the University of Pennsylvania, Museum of Archaeology and Anthropology. It was deciphered by Samuel Noah Kramer and Martin Leve. It is thought to be the most ancient pharmacopoeia in existence². The Sumerians named it as *Hul Gil* or the 'joy plant.' The Sumerians passed the knowledge of poppy cultivation to the Assyrians, the Babylonians, and later on to the Egyptians³.

By 1300 B.C. the Egyptians were farming *Opium thebaicum*, named after their capital city of Thebes. From Thebes, the Egyptians traded opium in all over the Middle East and into the Europe. The effects of opium were considered to be magical or mystical throughout this period. As mentioned by a Roman writer, Prosper Alpinus, Egyptians used to prepare and drank opium in the form of 'Cretic Wine', which they flavoured by adding pepper and other aromatics. Interpretations of certain sections of the Old Testament suggest that Opium was known to the ancient Hebrews. Their word *merosh*, meant to the juice of the Poppy and the word *rosh*, is believed to refer to the head of the Poppy⁴.

Papyrus Ebers, which happens to be the earliest record in medicine dated about 1550 BC, also mentions opium in its record. This document was found with a mummy in a tomb near Luxor, a town on the east banks of the river Nile. It describes a mixture of opium and another material, which was found effective in quietening crying children⁴.

The Greek physician, Hippocrates, some eight hundred years later, dismissed the notion that opium was "magical." Instead, he found out that it is effective as a painkiller and a styptic (a drug used to stop bleeding.)

Around 330 B.C. Alexander the Great carried opium to the people of Persia and India, where the poppies later came to be grown in vast quantities. By 400 A.D., *opium thebaicum* was introduced to China by Arab traders.

Homer (The Greek poet, ninth century BC) mentions opium in his epics Iliad and Odyssey. In his time, the use of a peculiar drug, Nepenthes, also known as the 'drug of forgetfulness' was fairly common in Greece. Opium was a major constituent of Nepenthes. Likewise, when Telemachus, one of the Trojan War heroes visited Menelaus in Sparta, he was extremely nervous about the fate of his father, Odysseus. At this time, wife of Menelaus, Helen, gave Nepenthes to him so that he could not remember his worries^{4, 5}.

Asia minor or modern-day Turkey is possibly the original home of opium poppy. It was from here that opium spread to other places. Hebrews called it ophion and Arabs, af-yunboth. The Chinese o-fuyung was in turn derived from the Arabic word⁴.

The Greek physician, Hippocrates (460-377 BC), known as the 'father of medicine' was possibly aware with poppy juice and referred to it as substance called mecon with both antipurgative and narcotic action. However, Greek botanist, Theophrastus (327-287 BC), applied term meconium, which is the first authentic reference to the juice of the poppy⁴.

Galen was the leading practitioner of medicine in Roman Empire from about 169 - 192 AD. It was Galen who so devotedly acclaimed the qualities of opium that its popularity grew to new heights by the end of the second century. Roman emperor, Severus released opium for common use following which the drug was even distributed by roman shopkeepers and quack.

Approximately 220-264 A.D., the noted Chinese surgeon Hua To used opium preparations and *Cannabis indica* for the patients to swallow before undergoing major surgeries⁶.

Arab physicians used opium extensively, the most eminent of whom was IbnSina (980-1037 AD). IbnSina recommended opium especially for diarrhoea and eye problems⁷ and it is said that he himself succumbed to an overdose of the drug⁸. Opium was introduced to the East by Arab traders around 980-1037 AD. Alcohol prohibition by the Holy Quran made Muslims very vulnerable to the use of opium. The mughal emperors, Babur, Humayun and Akbar, were habitual opium-eaters^{4,7}.

In the ninth century, the Arab traders brought opium to China and other parts of the eastern world. In his description of the Malabar Coast, Barbosa quoted opium as an Indian product on his travels to India in 1511. In 1546, the French naturalist, Belon, travelled through Asia and Egypt and found Turks to be the greatest addicts of opium who used to prepare and purchase it with their last penny.

Doctors sang its praises during the early days as an effective medicine while literatures cited it, as a 'thought-provoker'. Along with its very strong suppressive action on pain, it suppresses cough and causes constipation, thus it was found very useful in cough and diarrhoea. 'Laudanum' (from the Latin word Laudare, meaning 'to praise') which is a solution of opium became one of the most commonly used drug in the seventeenth century for treating dysentery. Laudanum was nothing but a solution of opium in alcohol known as 'tincture of opium' (10 percent Opium or 1 g of morphine to 100 cc of alcohol). The British physician, Thomas Sydenham (1624 - 1689) known as 'the English Hippocrates', flavoured the tincture with saffron, cinnamon and clover. An official stamp of approval by encouraging its use in dysentery and other such conditions was also put by Sydenham. The famous 'Dover's powder' was developed by Dr. Thomas Dover (1660-1742) which contains 10% of opium. Dover's powder became a popular remedy for alleviation of pain and cough. Paracelsus (1493-1541) Swiss physician, mentioned opium as the 'stone of immortality'. Three centuries later Oliver Wendell Holmes (1809-1894) the famous US writer and physician, also admired its uses. The famous Anglo-Canadian physician, Sir William Osier (1849-1919), referred Opium as 'God's own medicine' ⁴.

Alkaloids of Opium

One fourth of the weight of raw opium comprises of about twenty five different alkaloids. Morphine is the major alkaloid and constitutes about 10 to 20 per cent of raw opium. In 1805 a German pharmacologist Friedrich Wilhelm Adam Sertürner (1783-1841) isolated morphine from raw opium.

Morphine dissolves readily in boiling water, about one part dissolving in 500 parts of boiling water; however it is very sparingly soluble in cold water. Because of this property, these days morphine is extracted by placing raw opium in boiling water and removing the undissolved opium gum and then processing the solution to obtain morphine. It is officially prepared in about 3" x 4" x 1" size blocks, measuring about 300 to 350 gms and often marked with the trade marks '999' or 'AAA'. Approximately 10 kg of raw opium is required to extract 1 kg of morphine. As the poppy capsule ripens the morphine percentage in it quite paradoxically starts decreasing. Only traces of morphine can be found in ripe and dry poppy capsules (about 0.1 per cent) ⁴.

The French chemist, Pierre Jean Robiquet (1780-1840), in 1817, isolated noscapine and he also isolated alkaloid codeine in 1832 from opium. French chemist, Pierre Joseph Pelletier (1788-1842), isolated thebaine from opium in 1835. George Merck (1815-1888), is a German chemist, who isolated papaverine from raw Opium in 1848. Heroin, which is a diacetyl-morphine, was prepared by Heinrich Dreser in the year 1898⁴.

Drug dependence

The Tenth Revision of the International Classification of Diseases and Health Problems (ICD-10) defines the dependence syndrome as being a cluster of physiological, behavioural, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value⁹. Dependence on drugs comprises of three distinct and independent features: tolerance, physical dependence, and drug-seeking behaviour resulting in compulsive abuse or psychic craving as pointed out by Goldstein and colleagues¹⁰. Also, these features are noticed in different intensity and degrees with different drug dependence. In some cases of drug dependence, only one or two of these components are present. "An example of tolerance and physical dependence without compulsive abuse is provided by the morphine congener and antagonist nalorphine"¹⁰.

Psychic dependence

Psychological or psychic dependence refers to the experience of impaired control over drinking or drug use (WHO, 2014)¹¹. Psychic dependence is characterized by compulsive drug-seeking behaviour in which the individual consumes the drug repetitively for personal satisfaction, even after its known risks to health¹². Tolerance may or may not be present and if present its usually either of pharmacokinetic type or tachyphylaxis but rarely pharmacodynamic. Withdrawal effects are less frequent and mild in psychic dependence which can be tolerated as these are never life threatening¹³.

Physical dependence

Physiological or physical dependence is characterized by intense craving for the drug, tolerance (mainly pharmacodynamic) is invariably present and withdrawal effects are severe. In biologically-oriented discussion, dependence is often used to refer only to physical dependence¹¹. Physical dependence is present when withdrawal of the drug produces symptoms and signs that are frequently the opposite of those sought by the user. It has been postulated that the body adjusts to a new level of homeostasis during the period of drug use and reacts in an opposite manner when this newly set equilibrium is disturbed. Physical dependence is almost always preceded by psychic dependence but does not inevitably lead to it¹².

Drug Tolerance

Tolerance is defined as a decrease in pharmacologic response following repeated or prolonged drug administration. Tolerance signifies a decreased response to the effects of the drug, necessitating ever-larger doses to achieve the same effect. Physical dependence and tolerance are closely associated. There are two main classifications of tolerance: innate or acquired. Innate tolerance is due to pharmacogenetic makeup of individual which predisposes to drug sensitivity or insensitivity. Innate tolerance, in most situations is exhibited upon administration of the initial dose. However, acquired tolerance is a manifestation of repeated exposure to the drug. It can be subdivided into three basic types based on the prevailing mechanism: pharmacokinetic, pharmacodynamic, or learned. Pharmacokinetic tolerance occurs when drug disposition or metabolism is altered as a function of time, often a consequence of the drug being an inducer or inhibitor of a specific metabolic enzyme or transporter system, resulting in a time-dependent decrease in presentation of the active moiety to the receptor bio phase. Reduction of intrinsic response of the receptor system over time occurs in case of pharmacodynamic tolerance¹⁴. The drug's pharmacodynamic action is mitigated largely due to the compensatory responses. Behaviour tolerance, which is an ability to compensate for the drug's effects, can be another possible mechanism of tolerance. Behavioural tolerance is said to occur when a person learns to function in spite of repeated exposure to a drug. For example, chronic alcohol abusers may not show an outward appearance of motor impairment as a consequence of intoxication because of awareness of their impairment and learned motor function adaptations.

Conditioned tolerance is based on Pavlovian principles in which situational or circumstantial cues are associated with drug administration. Removal of these environmental cues will result in an enhancement in pharmacologic effect. Functional tolerance, which is thought to be the most common type, is due to compensatory changes in receptors, effector enzymes, or membrane actions of the drug¹².

Acute tolerance is predominantly mediated by pharmacodynamic mechanisms, presents as a decreased sensitivity after a single administration of the agent or during repeat-dosing but develops in a short time frame. This phenomenon is exemplified by nasally-administered cocaine. In contrast to acute tolerance, chronic tolerance can be mediated through either pharmacokinetic or pharmacodynamic mechanisms, with an end result of a long-term decrease in drug response in the face of constant systemic exposure. In cases in which chronic tolerance develops, cross-tolerance within the pharmacologic class also may occur. Replacement of the initial drug with a similar agent results in a diminished pharmacologic effect in comparison to that experienced by a drug-naïve person. Cross-tolerance is the principle underlying basis for methadone substitution in the treatment of heroin addicts.

Opioid Withdrawal Syndrome:

Abrupt termination of opioids in a physically dependent person leads to the development of withdrawal signs and symptoms. The only actual evidence of physical dependence is the appearance of a withdrawal syndrome when the administration of drug of abuse is terminated. The withdrawal syndrome is very unpleasant but not life-threatening. The withdrawal symptoms are apparent within 6 to 12 hours after the last dose of a short-acting opioid and can stay for as long as 72 to 84 hours in case of a very long acting opioid medication¹⁵.

SYMPTOMS	SIGNS
Regular withdrawal	Pupillary dilation
Craving for opioids	Sweating
Restlessness, irritability	Piloerection (gooseflesh)
Increased sensitivity to pain	Tachycardia
Nausea, cramps	Vomiting, Diarrhea
Muscle aches	Increased BP
Dysphoric mood	Yawning
Insomnia, Anxiety	Fever
Protracted withdrawal	Cyclic changes in weight & pupil size
Anxiety	Respiratory center sensitivity
Insomnia	
Drug craving	

DSM-5 Criteria for Opioid Withdrawal

Description:

DSM-5 Criteria for Opioid Withdrawal (APA, 2013)¹⁶

A. **Any** of the following:

1. cessation of (or reduction in) opioid use that has been heavy and prolonged (several weeks or longer)
2. administration of an opioid antagonist after a period of opioid use

B. **Three (or more)** of following, developing within minutes to several days after

Criterion A

1. dysphoric mood
2. nausea or vomiting
3. muscle aches
4. lacrimation or rhinorrhea
5. pupillary dilation, piloerection, or sweating
6. diarrhoea
7. yawning
8. fever
9. insomnia

C. The signs or symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The signs or symptoms are not due to another medical condition and are not better accounted for by another mental disorder, including intoxication or withdrawal from another substance.

Opioid Use Disorders (American Psychiatric Association, 2013)

The American Psychiatric Association (APA) uses the terms Opioid Use Disorders and Opioid Induced Disorders under opioid-related disorders. Opioid use disorders include 'opioid dependence' and 'opioid abuse' instead of addiction for the overall behaviour syndrome (DSM 5). According to APA, substance dependence (addiction) is defined as a cluster of symptoms indicating that the individual continues use of the substance despite significant substance related problems. Evidence of tolerance and withdrawal symptoms are included in the list of symptoms, but for the diagnosis of substance dependence neither tolerance nor withdrawal is necessary or sufficient.¹⁶

Prevalence

In 2014, an estimated 1.9 million people had an opioid use disorder related to prescription pain relievers and an estimated 586,000 had an opioid use disorder related to heroin use. Overdoses with opioid pharmaceuticals led to almost 17,000 deaths in 2011. Since 1999, opiate overdose deaths have increased by 265% among men and 400% among women¹⁷. In India, it is estimated that 75 million people are alcohol users and nearly 3 million are opioid users¹⁸. The prevalence of opium use in India has also been increasing and it is now considered to be a 'party drug' or 'relaxation drug'. Several studies have described the prevalence of opium abuse to be 1.51-2 %¹⁹, although in another study it was noted to be around 0.4%²⁰. The 12-month prevalence of opioid use disorder is approximately 0.37% among adults age 18 years and older in the community population²¹. Though, it can be an underestimation of the real problem because of the large number of incarcerated individuals with opioid use disorders²². Males are affected more than females (0.49% vs. 0.26%), with the ratio of male-to-female being 1.5:1 for opioids other than heroin (i.e. prescription drugs) and for heroin it is 3:1. There is a higher likelihood of opioid use disorders, to develop in adolescent females²³. There is decrease in prevalence with age, with the prevalence being highest (0.82%) among adults who are 29 years or younger in age, and it is reduced to 0.09% in adults age 65 years and older. The prevalence of opioid use disorder is lower among African Americans adult at 0.18% and overrepresented among Native Americans at 1.25%. It is almost similar among whites (0.38%), Asian or Pacific Islanders (0.35%), and Hispanics (0.39%)²³.

Development and course

Substance abuse disorders including opioids can involve any age group, but problems of opioid abuse are most often first noticed in the late teens or early 20s. Once developed, the opioid use disorder usually remains over a large period of many years, even though brief periods of abstinence are also seen sometimes. Relapse following abstinence is commonly seen in population which has been treated. Even though relapses do occur, long term abstinence is achieved in 20%-30% of the opioid dependent population, while some long-term mortality rates may be as high as 2% per year²⁴. As a result of early mortality, increasing age is associated with a decrease in prevalence; also there is remission of symptoms and signs after 40 years of age (i.e., "maturing out"). Although, many opioid abusers continue to have presentations that meet opioid use disorder criteria for decades²⁵.

Management Principles and Alternatives

The development of desired therapy for opioid abuse is of much importance given the devastating consequences of the disease. Pharmacotherapies for opioid addiction include opioid agonists, partial agonists, opioid antagonists, and alpha-2-adrenergic agonists, which are targeted toward either detoxification or long-term agonist maintenance. Management of opioid use disorders is made complex by the intoxication and withdrawal episodes.

Diagnostic Criteria: (DSM-5, APA 2013)

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Opioids are often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
4. Strong desire, urge or craving to use opioids.
5. Inability to fulfil the main obligations at work, school or home because of the recurrent opioid use.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Because of the use of opioid all the important social, occupational, or recreational activities are reduced or completely given up.
8. Recurrent opioid use inspite of the situation being physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect.

b. A markedly diminished effect with continued use of the same amount of an opioid. Note: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.

11. Manifestation of withdrawal by presence of features as mentioned below:

a. The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal).

b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms

Score the severity as “mild” if 2 or 3 criteria are met, “moderate” when 4 or 5 features are met, and “severe” if 6 or more criteria are present.

Opioid use disorder are associated with drug-related crimes (e.g., possession or distribution of drugs, forgery, burglary, robbery, larceny, receiving stolen goods), which are supportive of the diagnosis. Among health care professionals and individuals who have ready access to controlled substances, there is often a different pattern of illegal activities involving problems with state licensing boards, professional staffs of hospitals, or other administrative agencies. Unemployment, irregular employment and marital difficulties (including divorce), are linked with opioid use disorder often at almost all socioeconomic levels.

Diagnostic markers: (DSM-5, APA 2013)

Toxicology test results on urine are often found positive for opioid drugs in persons with opioid abuse disorder. Test results of urine continue to be positive for most of the opioids (e.g., heroin, morphine, codeine, oxycodone, propoxyphene) after administration for 12–36 hours. Standard urine tests does not detect fentanyl, however it can be identified by other specialized methods for several days. Drugs which have to be specifically tested and that will not have a positive result on routine screening tests for opiates are buprenorphine (or buprenorphine / naloxone combination), methadone and LAAM (L-alpha-acetylmethadol). They can be detected by specific tests for up to or more than 1 week. The lab evidence of the presence of other substances is common (like, cocaine, alcohol, amphetamines, marijuana, benzodiazepines). Results of screening test for hepatitis antigen (signifying active infection) and hepatitis antibody (signifying past infection)- for hepatitis A, B, and C virus are also positive in approximately 80%–90% of parenteral opioid users,. HIV is also very prevalent in i.v. opioid users. Mildly elevated liver function test results are common, either as a result of resolving hepatitis or from toxic injury to the liver due to contaminants that have been mixed with the injected opioid. Subtle changes in cortisol secretion patterns and body temperature regulation have been observed for up to 6 months following opioid detoxification.

Treatment (APA Practice Guidelines, 2010)

Early treatment efforts

Until the 1919 Supreme Court decision upholding Treasury's interpretation of the Harrison Act, numerous municipalities with large numbers of residents who were opioid addicted were operating treatment clinics in which morphine was prescribed or dispensed. Some clinics prescribed heroin and cocaine²⁶. These early OTPs varied in how they

functioned; some provided detoxification treatment and others adopted a maintenance policy²⁷. Perhaps the best known of these early OTPs were the Department of Health program in New York City, where those with addictions were detoxified with decreasing doses of heroin and morphine, and the program established by Dr. Willis Butler in Shreveport, Louisiana, which not only detoxified patients but also maintained some of them on morphine²⁶.

Courtwright and others state that Treasury regarded these clinics as a threat to its anti maintenance philosophy. By the early 1920s, it had succeeded in closing them through legal pressure, critical inspections, and threats. The last program to be closed was Dr. Butler's in Shreveport^{26, 27}.

In the 1920s, an increase in crime related to the acquisition of illicit opioids was reported in cities throughout the country. In 1929, Congress appropriated funds to establish two new treatment facilities, initially called "narcotics farms"²⁸, in Fort Worth, Texas, and Lexington, Kentucky. The Lexington facility, which opened to patients in 1935, was renamed the U.S. Public Health Service Narcotics Hospital in 1936. These institutions detoxified patients with opioid addiction who entered voluntarily, and they also served as hospitals for prison inmates who had opioid addictions and were legally committed through a Federal court. The prescribed stay was about 6 months, although some patients stayed longer. Prisoners could stay for up to 10 years. These hospitals offered social, medical, psychological, and psychiatric services in addition to detoxification and had a low patient-to-staff ratio (about 2 to 1), but the atmosphere was described as prisonlike, especially at the Lexington facility. Two major followup studies showed the program to be a failure. One reported a relapse rate of 93 percent in 1,881 former patients over a 1.0- to 4.5-year follow up period²⁹. The second found a relapse rate of 97 percent in 453 former patients over follow up periods of 6 months to 5 years³⁰. The Lexington hospital facility was turned over to the Bureau of Prisons in 1974. Despite the failure of these programs, White credits the research conducted there with providing "much of the foundation upon which modern treatment advances were built"²⁸.

The increase in heroin addiction in New York City after World War II led, in 1952, to the establishment of Riverside Hospital for adolescents with addiction disorders. This program also proved to be a failure. A follow up study in 1956 showed a high post treatment relapse rate (e.g., at least 86 percent of patients admitted in 1955), and the Riverside facility was closed in 1961³¹.

Five settings or modalities under which most of the treatment of opioid-associated disorders takes place are: opioid treatment programs, inpatient hospital settings, outpatient clinics and offices, self-help programs, and therapeutic communities. The setting of treatment depends on the preferences of the patient and clinical characteristics, the perceived treatment requirements of the patient, and alternatives which are available. For the treatment of opioid dependent patients, the least restrictive setting that is most likely to help in the safe and effective therapy must be preferred. There are some general guidelines and recommendations for treatment settings for opioid related disorders. A life-threatening emergency is opioid overdose, which should be initially evaluated and managed in a medical setting under supervision for example an emergency department or inpatient service. Typically treatment includes opioid effects reversal by an opioid antagonist (for e.g., naloxone). Withdrawal from opioid can also be dealt with in an inpatient setting and may be managed effectively with pharmacological agents which are agonist at opioid receptor (e.g., methadone, buprenorphine) or nonopioid medications (e.g., clonidine). Although symptomatic management of opioid withdrawal can be achieved relatively rapidly in an

inpatient setting (within 7 days), long-term results is generally poor for such withdrawal, with larger frequency of relapse after discharge from the inpatient setting.

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Development of Ottoman Mosque Architecture in Istanbul

Asif Ali*

ABSTRACT

Earliest mosques of Islam were austere and simple characterized by hypostyle hall and courtyard. For years this typology remained an inspiration for the development of mosques in the Arab world. As Islam spread from Arab world to different regions, several forms of mosques were developed due to different climatic conditions, material available and vernacular architecture. Scholars classified traditional mosque architecture into six categories broadly, viz. Arab, Turkish, Persian, Indian, Southeast Asia and Chinese. Each of them has its development stages from its inception to reach at the zenith of its architecture. Wherever Muslims reached, they did not hesitate to adopt the conventional architecture of the place and time. However, they innovated by amalgamating the immigrated and local wisdom. Hence in the beginning, the first architectural responses were more native in any region. In Turkey, early mosques were characterized by hypostyle hall similar to early Arab style. Later with Ottoman invasion and Sinan's involvement as an architect brought the Turkish mosque architecture to its peak. This paper investigates the different stages of development of Ottoman mosque in Istanbul.

Keywords:- Ottoman mosque, Istanbul, mosque architecture, Turkish architecture, Sinan.

INTRODUCTION

Soon after the immigration from Mecca to Medina Prophet Mohammad (SAW) build the first mosque at Quba in the outskirts of Medina. The details of construction are not available of this very first mosque of Islam because after a brief stay at Quba, Prophet left for Medina. Later he erected a mosque in Medina with the help of his companions. This mosque was built of date palm trees trunks as columns and covered with thatched leaves. A piece of trunk was placed as *mimber*, used for delivering sermon however this mosque did not have a *mihrab*. The mosque architecture in the beginning was very austere and simple. With the growth of Islamic world more robust forms with heavily ornamented interiors of mosques

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came into the picture. The newly conquered regions by Muslims demonstrated varied forms of mosque architecture. Martin Frishmen and Hasan uddin Khan (1994) categorised the traditional mosques into five major categories which was eventuated in to seven distinctive regional style by including two subcategories. One major category of regional styles of mosque is Turkish style, chiefly characterized by central massive dome supported by lateral half domes and pencil shaped minarets.

In late thirteenth century, an Oghuz Turk leader, Osman established Ottoman Empire in Northwest Anatolia. In 1453 Constantinople was took over by Muhammad Al-fatih, after ending Byzantine Empire and later it was renamed as Istanbul under the leadership of Sultan Mehmet II (Quataert, 2005). In 1471, the first Ottoman major building complex in the form of *Kulleye* was built in Istanbul, which consisted mosque, madarsas, library, hospice, public kitchen and a tomb known as Fatih complex (Saoud, 2004). Later almost all the Ottoman descendants built *Kulleye*. From sixteenth century, Ottoman Empire reached to its peak and observed the prosperity in all realms like economy, territorial expansion, architecture and literature. The strategic location of Istanbul was very suitable for governing the Anatolia and Balkan region simultaneously for the Ottomans. They built many mosques from large to small and with varying patronages. The centralized domed structure with lateral half domes and pencil like minarets became the salient features of ottoman mosques. Soon after the conquest, Fatih mosque as the name suggests, the first victory monument was built (Hillenbrand, 1994). Though the structural and aesthetical implications were resolved in its stylistic maturity of Ottoman mosques and reflected only in the later works. Muslims did not discard the native architectural style wherever they reached. Instead they preferred the regional style and local artisans in the beginning. With the passage of time a subtle amalgamation of native and immigrated technology evolved novel architectural style. This is the only reason why Islamic architecture is so much diverse from region to region despite their common visual vocabulary. The same phenomenon could be observed in the development of ottoman architecture. In Anatolia their predecessors, Seljuqs were the main inspiration for the upcoming building activities while in Istanbul, Byzantine style was adopted by Ottomans and later with acquired vocabulary, innovations were added (Jose, 1994). This paper explores the development of mosque architecture in Istanbul.

DEVELOPMENT OF OTTOMAN MOSQUE

Early Turkish mosques in Anatolia were having hypostyle hall, similar to the contemporary mosques in the Arab world. Later Seljuqs departed from the concept of courtyard and deviated to conventional layout. However by the fourteenth century, hypostyle prayer hall and courtyard with ablution tank was the conventional layout for mosque design. The new plan of seljuq's mosque was similar to inverted T with a central prayer hall flanked by meeting rooms and colonnaded verandah, for example Orhan Ghazi mosque at Bursa. Seljuq mosques were chiefly ornamented with carved stone, mosaic tiles and painted timber. One type of Ottoman mosque style developed from this style while another followed the earlier courtyard type plan. Unlike other religions, Islamic liturgy does not require secretive rituals and processions, so division of spaces is not essential. Even the intermediately pillars interrupt the rows for worshippers. The adaptation of larger dome at the centre of prayer hall not only provided a single unite space inside the mosque but it also improved the outer massing of the building. It seems an inspiration from pre-Islamic structure like, Hagia Sophia (Fig.1). Yasil Cami at Bursa is an early example of a mosque with dominated domes. In later mosques, two half domes, one on the qibla side and another on the opposite side were, added to make the *mihrab* more prominent. Bayzid II mosque is the example of a dominated central dome with half dome on two sides, a courtyard with domed cloisters on three sides (Fig. 2).



Figure 1. Hagia Sophia (Photograph by Author).

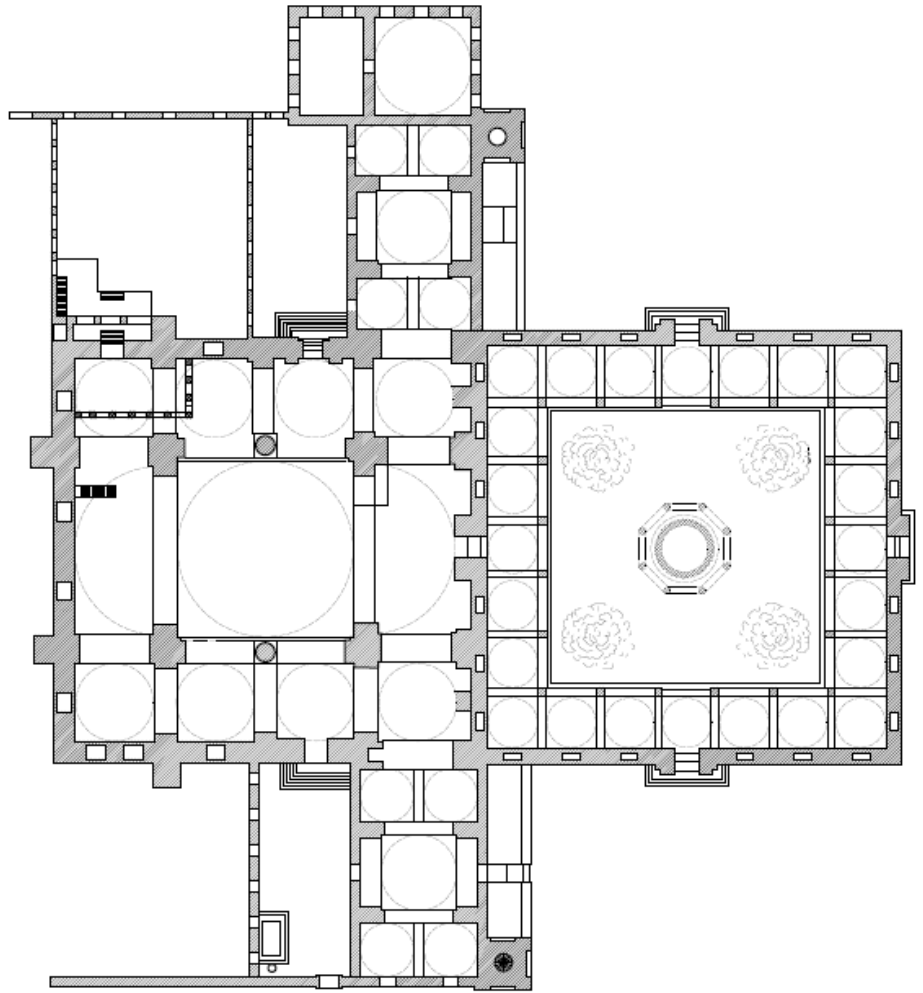


Figure 2. Plan of Beyazid II mosque.

Sinan became the chief royal architect under the reign of Suleyman I in 1539. The trend of paired minarets was started in early sixteenth century in Istanbul by Sinan such as Sultan Salim mosque and Shehzade complex. Sinan experimented with the enlargement of central dome size in Shehzade Mosque which covers the half of the prayer hall area (Fig. 3). As a result, a large uninterrupted space was formed at the centre of prayer hall. The windows with stained glass on all walls and in the drum of dome are providing the light to the space. Light in the space became the distinguished feature of ottoman mosque in comparison to earlier basilicas. For example Sulemaniya mosque, though based on similar structural system as of Hagia Sophia but Sinan beautifully carved out more windows to avoid the darkness. Another feature Sinan added to the interior was the Muezzin terrace on the south west pillar so that the sound can reach to the person standing in the last row. Sinan responded to ventilation and acoustics with the innovation in the late Turkish mosque architecture.

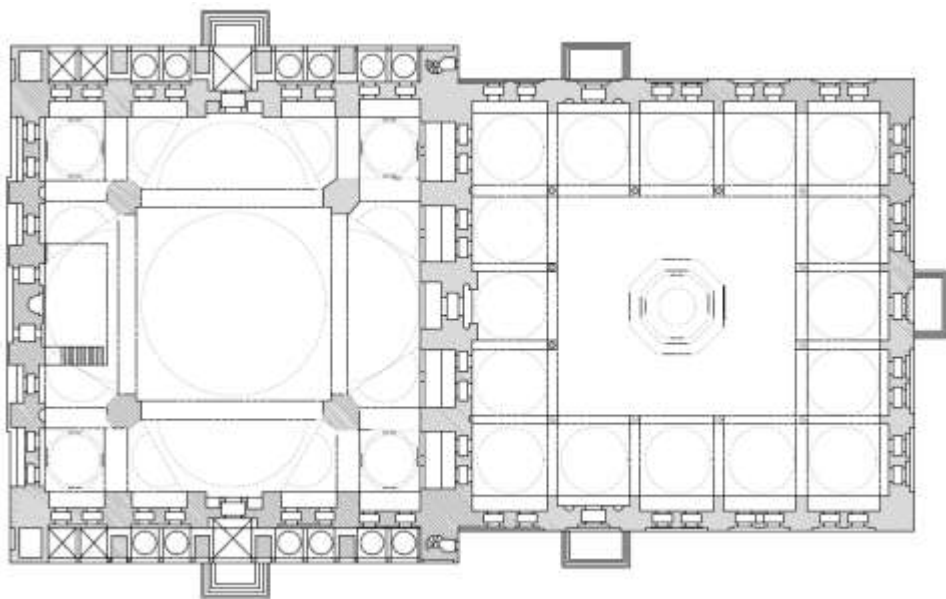


Figure 3. Plan of Shehzade mosque.

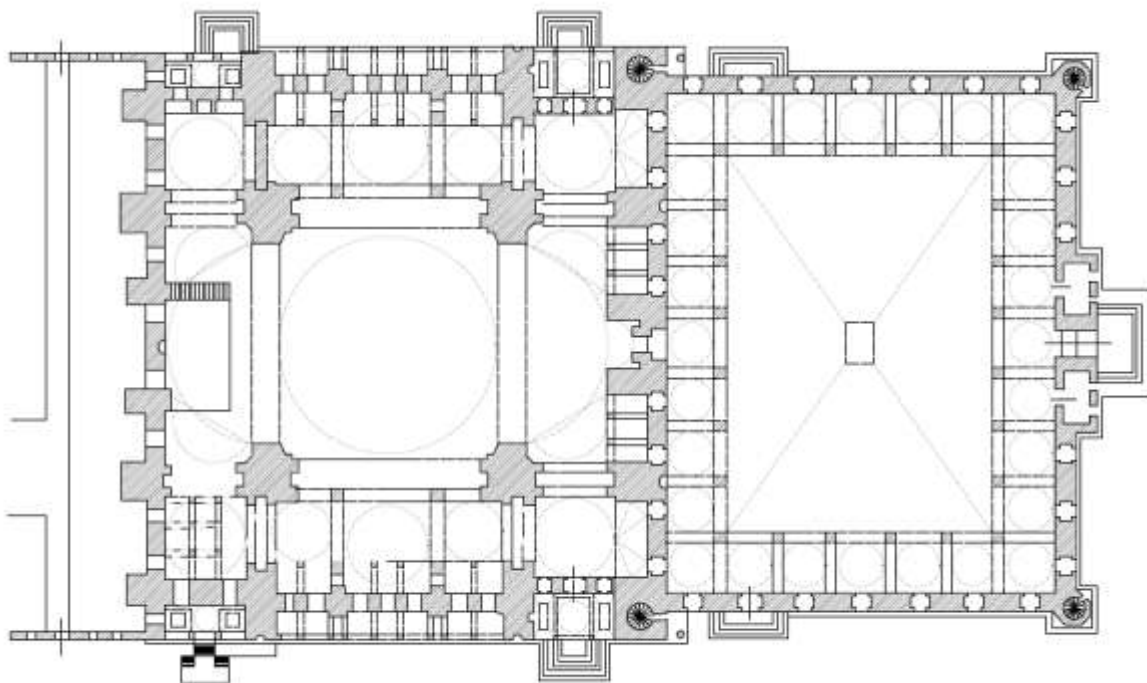


Figure 4. Plan of Suleymania mosque.

Sinan was responsible for producing a standard visual vocabulary of Ottoman architecture with the amalgamation of Islamic and Byzantine forms. Sinan had designed four hundred buildings and eighty mosques in his lifetime (Petrucchioli, 1984). His buildings were also based on earthquake resistant, environmental and acoustical design (Saoud, 2007). Suleyman, who ruled from 1520 to 1566, longest ruling Sultan of Ottomans, was a great builder. At the mid of sixteenth century, under the patronage of Suleyman the Magnificent, Sinan designed the one of the marvelous mosque of Istanbul, the Suleymania mosque. The marvel piece of Sinan's artistry was built on a hill. Its monumental scale and four minarets improvised the city silhouette of Istanbul from Bosporus side. A large dome about 25 meters in diameter is resting on four pillars to cover the most of the area of prayer hall (Fig. 4). The mosque campus is surrounded by the punctured wall with different entrances. Marble paved courtyard has minaret at each corner and arched colonnade. Behind the mosque there are graves of royal family in the garden and at the north of complex Sinan is buried. The prayer hall and courtyard was suffered due to disaster many times and later it was restored. The interior of mosque is soothing and austere, decorated with Iznik tiles, ceramic produced in Iznik city in Anatolia (Fig. 5). The interior is flourished with calligraphic panels, deliberately selected quotes from Quran by *shaykh ul-Islam*, Ebussuud Efendi, a Hanafi Ottoman jurist. The dome is supported over four giant pillars, decorated with the inscribed name of first four Caliphs of Islam. These pillars are further supported by granite pillars topped by arches having alternate grey and white voussoirs (Fig. 6). Qibla wall is ornamented with stained glass and blue glazed tiles (Figure 7).



Figure 5. Interior of Suleymaniya mosque (photograph by author)



Figure 6. Granite columns supporting the main pillars (Photograph by Author).

Sultan Ahmet mosque is the only mosque during Ottoman period having six Minarets. It was believed that the sanctity of mosque is related to the number of minarets(Bloom, 2013). A mature Ottoman minaret has a uniform arrangement of elements. The basic components of the minarets are footing, pulpit, transition segment, cylindrical or polygonal body/shaft, balcony, upper part of the minaret body, spire, stairs and end ornament (Doğangün, Tuluk, Livaoğlu, & Acar, 2006). The construction of domes is pendentive types. A pendentive dome is a “dome above a dome,” that is, a dome that seems to be “hanging in the air” over four giant arched supports (Mustafa & Hassan, 2013). This kind of dome allows the formation of a large multivolume space in the prayer hall. Chiefly most of the prayer halls are single large domes and to increase the space secondary multiple domes are constructed.



Figure 7. Qibla wall decorated with blue glazed tiles (Photograph by Author).

CONCLUSION

Earliest examples of mosque in Islam were austere with flat roof, hypostyle hall, courtyard and a *Minber* for sermon. Later Muslims added *mihrab*, minarets, and fountains etc. as spatial, structural or aesthetical elements to the mosque. Craving for a larger space without columns prompted the use of domes in mosques. Its earliest attempt in Anatolia could be observed in Üç Şerefeli Mosque at Edirne in the mid of fifteenth century. Ottomans amalgamated this proto type with Byzantine precedents to produce a well established and distinguished typology of mosque, an uninterrupted and unified space with central large domes and semi-domes. With the passage of time as Islam spread to the other regions, mosque typology varied in their style. One of the traditional mosque types developed in Turkey with key features of central large dome supported by half domes and pencil shaped minarets. The high time of Turkish mosque could be observed in Istanbul with several examples. Mosque architecture in Istanbul is an amalgamation of a style already established

in Bursa and Edirne with Byzantine precedents. The Magnificent of Byzantine religious architecture like Hagia Sophia influenced the contemporary Islamic architecture of Istanbul and Sinan's artistry played an important role to bring the Ottoman mosque architecture to its peak.

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Psychological Facets of Spirituality: An Empirical Study of Pilgrims at Sufi Shrines

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ABSTRACT

Spirituality is a phenomenon that evokes personal transformation and corresponds to religious exemplification through practices and traditions deemed as spiritual; so as to find purpose of life, attain harmony and atonement. Beneath this phenomenon lies the conviction that spirituality is the essence of becoming one with nature through an awakening that renders insights. It is thus believed that without an innate awakening, it is almost impossible to achieve harmony with the environment in which an individual lives. Despite the fact that this premise has a cursory nature and difficult to be quantified, this research has attempted to answer questions that have haunted the behavioural sciences for a while. A spiritual life ensures peaceful mutual coexistence in a world which is continuously changing itself; as a matter of fact it has drawn individuals closer to the folds of spirituality for providing a more meaningful existence. This research aims at exploring the role of spiritual practices in experiencing spiritual transcendence and achieving meaning in life among 605 individuals who visited Chishti Sufi shrines regularly, based in Ajmer and New Delhi. Results showed that there are both significant and non-significant relationships between the variables including significant predictions.

Keywords: Spirituality, Spiritual Transcendence, Spiritual/Religious Practices, Meaning in Life, Chishti Sufi Shrines

INTRODUCTION

Amidst the constantly shrinking walls of the world, human beings find themselves surrounded by new challenges in their lives. Striving for a place of their own, questioning their being, most of them experience the yearnings for finding answers to the questions put before them, as they struggle and soul search. Spirituality has become the new normal for the believers in the post-modernist world, in wake of lightning fast propagation of the 'spiritual but not religious' notion. In these times when disbelief has secured the third place among the followers of world religions, it is imperative to understand where exactly spirituality stands (Pew Research Centre, 2015). There have been events when people have migrated from their respective faiths and chose to stay unaffiliated, and then in some cases, they returned to a completely new faith undergoing religious transitions, else staying non-religious. Such

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events have been deemed largely as spiritual and thus the transformation is known as spiritual transformation.

Spirituality is the experience or expression of the sacredness (Random House Dictionary of the English Language, 1967). Often referred as a bridge between the seeker and the giver; and also understood as a divine dialogue without any actual conversations taking place, between the creator and the creation. Spirituality is a broader framework of beliefs and principles which seemingly overturn religious roadblocks in the journey to find divine truth, transcending all religious contrasts by following the principles of universality. Sufism is the mystical branch of Islam, rendering a milder approach to the faith, practiced and preached by Sufi saints down the centuries it could be also be called the prelude to actual faith of Islam. It reasons the meaning of life and explains the purpose of human existence. Therefore, it could be correctly said about Sufism that it has been a movement which requires people to do good deeds and become better muslims. It is a spiritual invitation from the master to the disciple for actualizing the meaning and purpose of life in true sense, harnessing the teachings of Islam as their inheritance.

Sufism is an Islamic manifest which bears true Islamic character in first place, showcasing the very essence of Islam and its divine values by keeping up the ethos and morale as taught by Islamic teachings. It requires patience and abstinence to become a Sufi as they are required to follow the practices of Prophet of Islam, Mohammed (Peace Be Upon Him). The different schools of Islamic jurisprudence came into being after the passing away of Prophet Mohammed (Peace Be Upon Him), therefore the Sufi schools that established in due course put forward an ideal way of leading the life in perfect sync with basic tenets of Islam. Sufism empowers individuals to practice internal decontamination and hence the practices aligned with it are considered essential for spiritual cleansing. Few years into being, came the consolidation of Sufi schools of thought in the central provinces of Islam, from where the message started reaching near and far. During the late twelfth and early thirteenth century, the enigma of Sufism had come full circle and with the arrival of Khwaja Moinuddin Chishti in Ajmer, started the glorious journey of Sufism in India. Khwaja was popularly known as Khwaja Gharib Nawaz, meaning the saviour of the poor and downtrodden for the alms he offered to those in need. Although the Chishti Sufi order gave rise to many peripheral schools of thought but it could be well accredited to the perpetually growing fame and popularity and patronage of Khwaja Moinuddin Chishti, inherited by a series of Chishti Sufi saints, that it became the guiding light for the great mughal empire which ruled India for over two centuries, more prominently during the reign of Akbar (Alam, 2009).

This research study has attempted to see spirituality through the prism of psychology from where the ideas of belief converge and form the rainbow that has decorated the spiritual sky. The research was largely an enquiry into the Sufi traditions through which the solace seekers swarming the Sufi shrines attain purpose and meaning in their lives. The research focuses upon what kind of spiritual/religious practices take a seeker to the station of ultimate truth, transcending the boundaries that discriminate. The study primarily focused upon the Chishti order of Sufism and therefore the sample was drawn from the shrines in Ajmer and Delhi, the hallmarks of Chishti Sufi order.

SPIRITUAL TRANSCENDENCE

Spiritual Transcendence is a relatively nascent concept in the literature of psychology as theorists have just begun to understand the importance and impact of spirituality in terms of the subjective well-being, contributing to transcendental experiences. Spiritual Transcendence could be understood as an amalgamation of three spiritual dimensions, namely: Universality, Connectedness and Prayer Fulfillment. Transcendence is a fundamental, intrinsic motivation involving making sacrifices at personal level by suppressing individual needs so as to ensure the welfare of larger group, to which the person

belongs (Piedmont, 1999). Spiritual transcendence refers to the individual aspirations of a person towards building up a comprehensive framework of meaning about the totality of universe and thereafter making sense of life and death. Psychologists have been long intrigued by the neurological bases of spirituality (Johnstone & Glass, 2008; Newberg & Newberg, 2005; Schjoedt, 2009), quintessentially because of accepted wisdom that spirituality could be conceptualized as a multidimensional emotional cognitive construct which has neurological bases compared against religion, which could be conceptualized as a set of behaviors/rituals learned through imitation of peers, which are significantly influenced by different cultural and religious traditions (Johnstone, Yoon, Frankin, Schopp, & Hinkebein, 2009).

SPIRITUAL/RELIGIOUS PRACTICES

Spiritual/Religious Practices are individual activities through which a person voluntarily gets engaged into exercising the spiritual traditions and principles of different religions of the world, with inhibitions to feel spiritual. It may also be understood as the regular performance of the activities performed for achieving spiritual truth with an objective to attain spiritual development in perfect sync with a given spiritual or religious tradition by inducing spiritual experiences and cultivating sacredness. Linger between actual and utopian life, spiritual practices are imbued with a deep sense of connectedness to the Supreme Being, other people in our lives, and the environment. Spirituality subscribes to the common good of the entire mankind enshrining the welfare of the immediate society, community or the people who are related to the individual, the practices thus involved are deemed spiritual/religious because of the spiritual/religious foundations. Since spirituality is an approach through which people embark upon individual inquiries of self, making sense of life and search its meaning (Bown & Williams, 1993), spiritual/religious practices could be understood as endeavours which imbibe divine sacredness in individuals. Spirituality in India has been understood within the pretext of religion but there is a vast difference between being religious and being spiritual as far as practices are concerned. Spirituality has a mass appeal due to the inhibitions of universality and tolerance, which led to its widespread presence across India and the world. With even more people subscribing to spiritual/religious practices, it becomes clear that spirituality certainly has more to offer, as it is believed to open the doors closed by religion and makes it look more subtle and less subjugating.

MEANING IN LIFE

Evidence has demonstrated that there has been a close link between spiritual/religious engagement and happiness, the reason being the premise that spirituality provides the man a chance to look inside, making sense of existence and find meaning in life. It is natural and humane that a man struggling for existence would obviously look for something that contains value. Shakyamuni Buddha is believed to have put the search for meaning in life as, "There are two ways of looking which ascertain the contentment of a man, if he looks in the right direction, he identifies the true nature and sense of sickness, old age, and death followed by a search for meaning in what he notices, transcending all human suffering. In my life full of pleasures, I seem to have been looking the wrong way." (Bukkyo Dendo Kyokai, 1966).

Man has been searching for meaning and purpose of life ever since he felt content for the first time, because discontentment is an essential trait of human personality. Questioning one's own existence and looking out for answers to the mysteries of life and what is beyond, has left the ever inquisitive man charmed. Meaning in life has been understood as the sense of purpose and coherence in the life of an individual, it essentially correspond to an awareness of morale, value, fragility and preciousness of human life (Antonovsky, 1979; Vickberg, Bovbjerg, DuHamel, Currie & Redd, 2000; Bower, Kemeny, Taylor & Fahey, 2003).

Religion did help man to make sense of what has been around from long before he was born, but there remains a lot to be answered and explored. Religious aggression and fanaticism have been eroding the fields of faith and bridges of belief, but on the brighter side this melancholy made way for spirituality. People who locked heads due to religious intolerance started finding solace in spirituality, where boundaries disappeared and differences faded. Spiritual truth is believed to be achieved through establishing a peaceful and harmonious relationship with the universe, searching for answers about the infinite, the unknown and the supernatural. The need to feel spiritual and find meaning in life emerges from the hardships, challenges, emotional stress, physical and mental despair, losses, bereavement and death (Murray & Zentner, 1989).

The need hierarchy pyramid has put the need for self-actualization at the top, and that is exactly where the need to feel spiritual is felt (Maslow, 1962). Spiritually enlightened people believe that there is a higher plane of consciousness where entire humanity is tied more closely with each other and the difference that exist are merely man made. Such people embark on soul searching spiritual journey to start an upsurge for meaning and purpose in their respective lives, instead of finding meaning of life, which is a cumbersome task regardless. Considering it as an array of ideas and beliefs about self and the world, meaning in life stands at a distance from the prominent sources of meaning or experiences and activities which evoke the same. Meaning in life particularly may arise from a single source or a number of sources (Baumeister, 1991; Frankl, 1985).

People engage themselves in plethora of practices in order to seek solace and elevate themselves a higher station of consciousness, following spiritual paths which include practicing faith, prayers, traditions, community service and social support. There are various known sources of meaning which are varied and unique to each individual, still the belief that life contains meaning is quite common among individuals and exists in varying volumes. Meaning in life has been taken as a positive variable, that is also an indicator of well-being (Ryff, 1989a; Ryff, 1989b). It is also considered as an effective facilitator of adaptive coping (Park & Folkman, 1997), and an effective determinant of therapeutic growth (Crumbaugh & Maholick, 1964).

Religiosity could be understood as an individual's relationship with a religious tradition that has been established with inherent sacredness. Oriented around a supernatural power, it creates a cosmos of devotion and submission which requires the followers to abide by the doctrine thus concerned. While spirituality is a transpersonal construct which could be defined as the intrinsic human capacity to attain self-transcendence, characterizing the dissolution of self into something greater than the self, including the divine and sacred. It embarks the search for meaning, purpose, connectedness and contribution. As religiosity and spirituality involve human behaviour and sacred practices, these ideas become abstract and a valid concern for behaviour and cognition scientists, making a perfect case for psychological research. These ideas are generally measured by frequencies and magnitudes of the practices which invoke religiosity/spirituality. Since the threshold of this all stems from the behaviour it ought to have some mental effects, hence it would be of great interest to explore as to what exactly embarks spiritual behaviour.

Objectives

1. To examine the influence of gender, shrine and religion on Spiritual Transcendence.
2. To examine the influence of gender, shrine and religion on Spiritual/Religious Practices.
3. To examine the influence of gender, shrine and religion on Meaning in Life.
4. To determine Cronbach's Alpha of ASPIRES Scale, SPS-M & SPS-H Scale and MIL Questionnaire.

Hypotheses:

H₀₁ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers.

H₀₂ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim Male solace seekers.

H₀₃ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim Female solace seekers.

H₀₄ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers at Khwaja Gharib Nawaz Shrine.

H₀₅ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers at Hazrat Nizamuddin Auliya Shrine.

H₀₆ There are no significant predictors of Spiritual/Religious Practices from potential predictors such as Spiritual Transcendence, Meaning in Life, Age, Gender, Religion, Civility, Family Type and Levels of Education across the sample of Muslim solace seekers.

H₀₇ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers.

H₀₈ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu Male solace seekers.

H₀₉ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu Female solace seekers.

H₀₁₀ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers at Khwaja Gharib Nawaz Shrine.

H₀₁₁ There are no statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers at Hazrat Nizamuddin Auliya Shrine.

H₀₁₂ There are no significant predictors of Spiritual/Religious Practices from potential predictors such as Spiritual Transcendence, Meaning in Life, Age, Gender, Religion, Civility, Family Type and Levels of Education across the sample of Hindu solace seekers.

Materials and Methods:

The study was carried out to investigate and examine “*Spiritual Transcendence, Spiritual/Religious and Meaning in Life among solace seekers of different religious traditions*” in Indian cities of Delhi and Ajmer. Generally the formulation of hypotheses is followed by a measurement that includes scaling and surveying, ascertaining whether sampling is probable or non-probable. In the present research, in order to address the formulated hypotheses, the analysis of standard multiple regression and Pearson’s product coefficient of correlation have been administered. Therefore, the present study could be considered of correlational nature.

The sample for the study was drawn through purposive judgmental sampling, randomized from a large population pool and consisted of 605 individuals which have been referred to as solace seekers. The sample was drawn at the world famous Sufi shrines in Ajmer, the capital city of Rajasthan and New Delhi, the capital city of India in the National Capital Territory of Delhi, respectively. The demographic details included name, gender, religion, race, education, civility, and family type. For the collection of data SPIRES short form consisting of 13 items was used along with Spiritual Practices Scale for Muslims and Hindus consisting of 12 and 15 items respectively, and Meaning in Life Questionnaire consisting of 10 items.

RESULTS

The Data collected for the research was tabulated and analyzed through appropriate statistical techniques such as Carl Pearson's Product Moment Correlation and Stepwise Multiple Regression to know the nature, dynamics and predictability of relationships between Spiritual Transcendence, Spiritual/Religious Practices and Meaning in Life among Solace Seekers of different Religious Traditions. The analyses were also conducted within sub-groups of solace seekers such as religion, gender and shrines.

The exhaustive review of literature indicated that a previously known and dependable relationship of the dependent variable and independent variables did not exist. Therefore the choice of statistical analyses had to be primary and exploratory which should have fallen on the lowest hierarchy of evidence establishment. Thus the emphasis was upon exploring the relationship/s with the help of Carl Pearson's Product Moment Correlation. Since the data was collected in two separate groups, Muslim and Hindu Solace Seekers, hence the output has been listed separately for the mentioned groups.

Table 1:- Product Moment Correlations of Muslim Solace Seekers (N = 346)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.026	1		
Spiritual / Religious Practices	.048	.021	1	
Meaning in Life	.008	-.026	.053	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

An observation of the table 1 indicates that there is no statistically significant correlation in the four variables viz. age of the Muslim solace seekers, their spiritual transcendence, their meaning in life and their spiritual/religious practices.

Table 2:-Product Moment Correlations of Muslim Male Solace Seekers (N = 272)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.008	1		

Spiritual / Religious Practices	-.004	.016	1	
Meaning in Life	-.001	-.051	.101	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Similarly, none of the observations made in Table-2 indicates that there is any statistically significant correlation in the four variables viz. age of the Muslim male solace seekers, their spiritual transcendence, their spiritual/religious practices and their meaning in life.

Table 3:-Product Moment Correlations of Muslim Female Solace Seekers (N = 74)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.137	1		
Spiritual / Religious Practices	-.105	-.212	1	
Meaning in Life	.084	.135	.182	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Table-3 also indicates that there is no statistically significant correlation in the four variables viz. age of the Muslim female solace seekers, their spiritual transcendence, their spiritual/religious practices and their meaning in life.

Table 4:- Product Moment Correlations of Muslim Solace Seekers at Ajmer (N =167)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.053	1		
Spiritual / Religious Practices	.057	.058	1	
Meaning in Life	.011	-.073	.040	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

In the same manner, Table-4 indicates that there is no statistically significant correlation in the four variables of Muslim solace seekers visiting the shrine at Ajmer viz. their ages, their spiritual transcendence, their spiritual/religious practices and their meaning in life.

Table 5: Product Moment Correlations of Muslim Solace Seekers at Delhi (N = 179)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.002	1		
Spiritual / Religious Practices	.039	-.092	1	
Meaning in Life	.001	-.087	-.034	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Finally, Table-5 also indicates that there is no statistically significant correlation in the four variables of Muslim solace seekers visiting the shrine at Delhi viz. their ages, their spiritual transcendence, their spiritual/religious practices and their meaning in life. To observe such relationships amongst these variables of Hindu solace seekers, it becomes essential to consider the observations made across the variables in their cases. All those observations and findings are contained in Tables (6-10) which have been provided below.

Table 6:-Product Moment Correlations of Hindu Solace Seekers (N = 259)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.022	1		
Spiritual / Religious Practices	.015	-.519***	1	
Meaning in Life	-.084	-.253***	.321***	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

An observation of the above table indicates that there is a statistically significant correlation between meaning in life and spiritual transcendence. This relationship is negative which implies that if one variable increases the other decreases. The similar kind of relationship is also seen between spiritual transcendence and spiritual/religious practices. In other words, if spiritual transcendence increases spiritual/religious practices decrease and vice-versa. There is however a positive correlation seen in this matrix that is between spiritual/religious practices and meaning in life. It says that if spiritual/religious practices amongst the Hindu solace seekers increase, it helps to increase meaning in life and vice-versa.

Remaining other relationships in the correlation matrix, were found as not statistically significant and hence they are not included in the tables.

Table 7:- Product Moment Correlations of Hindu Male Solace Seekers (N = 146)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.051	1		
Spiritual / Religious Practices	-.039	-.192*	1	
Meaning in Life	-.117	.075	-.009	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

An observation of the above table indicates that there is a statistically significant correlation between Spiritual/Religious Practices and Ages of Hindu male solace seekers. This relationship is negative which implies that if one variable increases the other decreases. The similar kind of relationship is also seen between Spiritual/Religious Practices and Total Spiritual Transcendence. It implies that if the magnitude of Spiritual/Religious Practices increases, there would be significant decrement in Total Spiritual Transcendence and vice-versa.

Table 8:-Product Moment Correlations of Hindu Female Solace Seekers (N =113)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	-.007	1		
Spiritual / Religious Practices	.099	-.537**	1	
Meaning in Life	-.102	.156	-.198*	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Table-8 shows that there is a prominent negative correlation in the matrix that is between Spiritual/Religious Practices and Total Spiritual Transcendence. Since it is a negative correlation, it implies that if the magnitude of Spiritual/Religious Practices would increase, there would be a significant drop in the measure of Total Spiritual Transcendence of the Hindu female solace seekers and vice-versa. Also there is another negatively correlated pair of variables viz. Meaning in Life and Spiritual/Religious Practices, which denotes an inverse relationship between them, it shows that if there would be any increment in the magnitude of meaning in life, there would be a decrement in Spiritual/Religious Practices and vice-versa, in context of Hindu female solace seekers.

Table 9:-Product Moment Correlations of Hindu Solace Seekers at Ajmer (N = 117)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.004	1		
Spiritual / Religious Practices	.049	-.550**	1	
Meaning in Life	.030	-.266**	.326**	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Table-9 demonstrates three negatively correlated pair of variables in context of Hindu solace seekers visiting Ajmer shrine. First negatively correlated pair of variables is Spiritual/Religious Practices and Total Spiritual Transcendence, which signifies that the variables have an inverse relationship according to which if the magnitude of Spiritual/Religious Practices would increase, there would be a decrease in Total Spiritual Transcendence of the solace seekers and vice-versa. Second pair of variables correlated negatively comprises of Meaning in Life and Total Spiritual Transcendence, which means that if solace seekers find greater meaning in their respective lives they would be subjected to lesser Total Spiritual Transcendence and vice-versa. Finally, the third negative correlation could be found in between Meaning in Life and Spiritual/Religious Practices, it means that if solace seekers experienced an increase in their Meaning in Life, they would experience a drop in their Spiritual/Religious Practices and vice-versa.

Table 10:-Product Moment Correlations of Hindu Solace Seekers at Delhi (N = 142)

Variables	Age	Total Spiritual Transcendence	Spiritual / Religious Practices	Meaning in Life
Age	1			
Total Spiritual Transcendence	.046	1		
Spiritual / Religious Practices	-.012	-.513**	1	
Meaning in Life	-.218**	-.238**	.330**	1

Correlation is significant at: ***<0.001 level, ** 0.01 level, *0.05 level (two tailed)

Subsequently, Table-10 demonstrates four pairs of negatively correlated variables with regards to Hindu solace seekers visiting the shrine in Delhi. The first pair of variables consists of Spiritual/Religious Practices and Total Spiritual Transcendence, which means that greater the magnitude of Spiritual/Religious Practices, smaller the magnitude of Total Spiritual Transcendence and vice-versa, second pair comprises of Meaning in Life and Ages of solace seekers, which means that there is an inverse relationship between the two variables here, if there is an increment in Meaning in Life, the Ages would be subjected to experience a

drop and vice-versa, third pair of variables have another negative correlation between Meaning in Life and Total Spiritual Transcendence, which means that if there is an increase in Meaning in Life, there would be an imminent decrease in Total Spiritual Transcendence and vice-versa, finally the fourth and last pair of negatively correlated variables in same context has Meaning in Life and Spiritual/Religious Practices and it denotes that if there is an increase in Meaning in Life among the solace seekers, there would be a decrease in the magnitude of Spiritual/Religious Practices and vice-versa.

Multiple Regression Analysis:

The first model of stepwise multiple regressions in our research aim to identify the significant predictors of the dependent variable Spiritual/Religious Practices amongst Muslim solace seekers. Independent variables in this analytical model were entered under two hierarchical sets. The first set included scale variables such as age, components of meaning in life viz presence and search, religious sentiments and spiritual transcendence. The second set comprised all categorical variables which included gender, shrine, education, family type and civility. The analysis reported that only two variables viz. gender and shrines are the significant predictors of Spiritual/Religious Practices. The findings have been reported in the following tables:

Table 11a:-Significant predictors of Spiritual/Religious Practices amongst Muslim Solace Seekers (N = 346) Goodness of fit: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Gender	Regression	1660.470	1	1660.470	314.868	<.001
	Residual	1814.099	344	5.274		
	Total	3474.569	345			
Shrine	Regression	1800.194	2	900.097	184.387	<.001
	Residual	1674.375	343	4.882		
	Total	3474.569	345			

Table 11a deals with testing the efficacy of the regression model to significantly predict our dependent variable that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains almost stable for the next step too.

Having studied the goodness of fit of our regression model in table 11a we further study the model parameters and regression coefficients which have been reported in table 11b.

Table: 11b:- Model summary and Coefficients

Predictors	R	R ²	ΔR^2	β	Effect Size (f^2)	t	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Gender	.691	.478	.478	-5.371	0.92	-18.537	<.001	-5.941	-4.801
Shrine	.720	.518	.040	-1.272	1.075	-5.350	<.001	-1.740	-.804
Constant = 50.365									

Gender in our model has entered at first step being most important and significant predictor of Spiritual/Religious Practices. Regression value (.691) indicates strong association

between the dependent and the independent variables. R^2 value indicates the amount of variance accounted for by the Gender in the level of Spiritual/Religious Practices. In this model 47.8% of the total variance in Spiritual/Religious Practices is due to gender. Regression coefficient (β) value is -5.371 which signifies that each chance of a subject being a male increases the value of Spiritual/Religious Practices as high as 5.37 units provided that the effect of all other variables remains constant. t -value is highly significant which indicates that β -value is significantly different from zero. This signifies that the slope of the regression is steep enough. Confidence interval for β indicates the limits of coefficient value which is fairly narrow and extrapolates our findings to the population with good confidence.

Second and final predictor which enters to the model after gender is Shrine and shows its positive bearing on the dependent variable ($R=0.72$). R^2 value (.518) indicates the amount of variance accounted for jointly by gender and shrine in the level of Spiritual/Religious Practices. In this model 51.8% of the total variance in Spiritual/Religious Practices is due to gender and shrine. The individual contribution of variance from shrine is 4%. The joint value of ($R^2 = .518$) also signifies that the rest of the 48.2 % of the total variance is accounted for by some unknown factors which have not been explained by our regression model. β - Coefficient for shrine is -1.272 which indicates that each chance of a subject being a solace seeker at Khwaja Gharib Nawaz Shrine increases the value of Spiritual/Religious Practice by 1.27 units provided that the effect of all other variables is held constant. The upper and lower limits of confidence interval for beta-coefficient are varying across the value of one. It doesn't ensure strong extrapolation of our results to the population but ensures that the findings are good to the sample.

Next regression model deals with identification of significant predictors of Spiritual/Religious Practices of Male Muslim solace seekers. The selected independent variables considered were similar as previous model except gender. Results have been reported in the following tables.

Table 12 a:-Significant predictors of Spiritual/Religious Practices amongst Male Muslim Solace seekers (N = 272) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Religious Sentiments	Regression	47.109	1	47.109	8.653	.004
	Residual	1469.950	270	5.444		
	Total	1517.059	271			
Shrine	Regression	321.618	2	160.809	36.186	<.001
	Residual	1195.441	269	4.444		
	Total	1517.059	271			

Table 12a deals with testing the efficacy of the regression model to significantly predict our dependent variable that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains almost stable for the next step too.

Table 12b:-Model summary and Coefficients

Predictors	R	R ²	ΔR ²	β	Effect Size (f ²)	t	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Religious Sentiments	.176	.031	.031	.060	0.32	.616	.538	-.132	.252
Shrine	.460	.212	.181	-2.119	0.27	-7.859	<.001	-2.650	-1.588
Constant = 44.806									

Religious Sentiments in our model has entered at first step being most important and significant predictor of Spiritual/Religious Practices within the population of male Muslim solace seekers. Regression value (.176) shows a fair association between the dependent and the independent variables. R² value indicates the amount of variance accounted for by Religious Sentiments in the level of Spiritual/Religious Practices. In this model 3.1% of the total variance in Spiritual/Religious Practices is due to Religious Sentiments. Regression coefficient (β) value is .06 which is clearly very low and its confidence intervals clearly indicate that the finding cannot be extrapolated to the population and remains limited to the sample only. t- value is statistically non-significant which indicates that β-value is not significantly different from zero and the slope of the regression line is not steep enough and tends to go parallel to x-axis. In sum, this finding is not too dependable to be followed.

Second and final predictor which enters to the model after Religious Sentiments is Shrine and shows its positive bearing on the dependent variable (R=0.46). R² value (.212) indicates the amount of variance accounted for jointly by Religious Sentiments and shrine in the level of Spiritual/Religious Practices. In this model 21.2% of the total variance in Spiritual/Religious Practices is jointly due to Religious Sentiments and Shrine. The individual contribution of variance from shrine is 18.1%. The joint value of (R² =.212) also signifies that the rest of the 78.8 % of the total variance is accounted for by some unknown factors which have not been explained by our regression model. β - Coefficient for shrine is - 2.119 which indicates that each chance of a subject being a solace seeker at Khwaja Gharib Nawaz Shrine increases the value of Spiritual/Religious Practice by 2.12 units provided that the effect of all other variables is held constant. The upper and lower limits of confidence interval for beta-coefficient are narrow enough to show a dependability of our sample results into the population.

Having analysed our data for the predictors of Spiritual/Religious Practices amongst the male sample, it's important to have a comparative gender view in order to see if the women counterparts have the similar magnitude in solace seeking or different from their male counterparts. Therefore, sample comprising only women in our data (N=74) was subjected to the stepwise multiple regression. The likely predictors included in the analysis were similar in the previous analysis. The findings have been presented in tables 13a and 13b.

Table 13 a:-Significant predictors of Spiritual/Religious Practices amongst Female Muslim Solace Seekers(N = 74) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Spiritual	Regression	32.772	1	32.772	8.929	.004
Transcendence	Residual	264.269	72	3.670		

	Total	297.041	73			
	Regression	80.240	2	40.120		
Shrine	Residual	216.800	71	3.054	13.139	<.001
	Total	297.041	73			
	Regression	94.054	3	31.351		
Education	Residual	202.987	70	2.900	10.811	<.001
	Total	297.041	73			

Table 13a deals with testing the efficacy of the regression model that predicts our dependent variable significantly that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains almost stable for the next two steps as well.

Table 13 b:-Model summary and Coefficients

Predictors	R	R ²	ΔR ²	β	Effect Size (f ²)	T	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Spiritual Transcendence	.332	.110	.110	-.120	0.12	-.997	.322	-.359	.120
Shrine	.520	.270	.160	1.830	0.36	4.134	<.001	.947	2.713
Education	.563	.317	.047	.544	0.46	2.183	.032	.047	1.041
Constant = 37.569									

Spiritual Transcendence in our model has entered at first step being most important and significant predictors of Spiritual/Religious Practices within the population of female Muslim solace seekers. Regression value (.332) shows a good association between the dependent and the independent variables. R² value indicates the amount of variance accounted for by Spiritual Transcendence in the level of Spiritual/Religious Practices. In this model 11% of the total variance in Spiritual/Religious Practices is due to Religious Sentiments. Regression coefficient (β) value is -.12 which is clearly very low and its confidence intervals clearly indicate that the finding cannot be extrapolated to the population and remains limited to the sample only. t- value is statistically non-significant which indicates that β-value is not significantly different from zero and the slope of the regression line is not steep enough and tends to go parallel to x-axis. In sum, this finding is not too dependable to be followed.

Second predictor which enters to the model after Spiritual Transcendence is Shrine and shows its positive bearing on the dependent variable (R=.52). R² value (.27) indicates the amount of variance accounted for jointly by Spiritual Transcendence and shrine in the level of Spiritual/Religious Practices. In this model 27% of the total variance in Spiritual/Religious Practices is jointly due to Spiritual Transcendence and Shrine. The individual contribution of variance from shrine is 16%. The joint value of (R² =.27) also signifies that the rest of the 73 % of the total variance is accounted for by some unknown factors which have not been explained by our regression model. β - Coefficient for shrine is 1.83 which indicates that each chance of a subject being a solace seeker at Hazrat Nizamuddin Shrine increases the value of Spiritual/Religious Practice by 1.83 units provided that the effect of all other variables is held constant. The upper and lower limits of confidence interval for beta-

The third and the final predictor which enters to this model is education of the female solace seekers. The regression value shows the positive bearing of education on the Spiritual/Religious Practices ($R=0.563$). R^2 value (.317) indicates the amount of variance accounted for jointly by Spiritual Transcendence, shrine and education in the level of Spiritual/Religious Practices. In this model 31.7% of the total variance in Spiritual/Religious Practices is jointly due to Spiritual Transcendence, Shrine and education. The individual contribution of variance from education is 4.7%. The joint value of ($R^2 = .317$) also signifies that the rest of the 68.3 % of the total variance is accounted for by some unknown factors which have not been explained by our regression model. β – Coefficient for Education is .544 which indicates that each chance of a woman subject moving from low grade of education qualification to higher grade of educational qualification increases the value of Spiritual/Religious Practice by 1.83 units provided that the effect of all other variables is held constant. Let's be reminded that our variable of education bears 6 levels of qualifications beginning from High School and ranging up to Doctoral level. The limits of confidence interval for beta are not close enough and indicate low confidence in the results if extrapolated to the population.

Table 14 a:- Significant predictors of Spiritual/Religious Practices amongst Muslim Solace Seekers at the shrine of Khwaja Gharib Nawaz (N = 167) Goodness of fit: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1615.647	1	1615.647		
Religious Sentiments Residual	219.922	165	-1.333	1212.165	<.001
Total	1835.569	166			

Table 14 b:- Model summary and Coefficients

Predictors	R	R ²	ΔR ²	β	Effect Size (f ²)	T	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Gender	.938	.880	.880	-7.490	7.34	-34.816	<.001	-7.914	-7.065
Constant = 51.682									

Our findings indicate that only one independent variable i.e. gender is able to significantly predict the variance in our dependent variable within the sample of Muslim solace seekers who attend to the shrine of Khwaja Gharib Nawaz in Ajmer. The regression value indicates a strong association between the dependent variable and the independent variable ($R = .938$). R^2 value indicates the amount of variance accounted for by Gender in the level of Spiritual/Religious Practices. In this model 88% of the total variance in Spiritual/Religious Practices is due to gender. Regression coefficient (β) value is -7.49 which is very high and its confidence intervals are very narrow. The value signifies that each chance of a Muslim solace seeker being a man would improve the level of their Spiritual/Religious practices by 7.49 units provided that the effect of all other variables are held constant. t -value is statistically significant which indicates that β -value is significantly different from zero and the slope of the regression line is steep enough. In sum, this finding is highly dependable shows high confidence in results for extrapolating to the population.

The next regression model deals with the similar analysis as the previous one but with the solace seekers attending to the shrine of Hazrat Nizamuddin. The findings have been tabulated below:

Table 15 a:- Significant predictors of Spiritual/Religious Practices amongst Muslim Solace Seekers at the shrine of Hazrat Nizamuddin (N = 179)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	317.978	1	317.978		
Religious Sentiments Residual	1198.234	177	6.770	46.971	<.001
Total	1516.212	178			

This is interesting to see that the significant predictor of our dependent variable is gender in this sample of shrine too. To some level this approves our previous findings and provides the idea that gender plays an important role while solace seekers associate themselves to a shrine. The efficacy of the regression model by the prediction of our dependent variable significantly is done here well. An observation of sum of squares for the single step shows that regression line fits to the data. F-ratio is highly significant, showing our ability to predict the dependent variable.

Table 15 b:- Model summary and Coefficients

Predictors	R	R ²	ΔR^2	β	Effect Size (f^2)s	T	p	95.0% Confidence Interval for β
								Lower Bound Upper Bound
Gender	.458	.210	.210	-3.291	0.26	-6.854	<.001	-4.239 -2.344
Constant = 45.313								

Again in this sample, only gender is able to significantly predict the variance in our dependent variable within the sample of Muslim solace seekers who attend to the shrine of Hazrat Nizamuddin in Delhi. The regression value indicates a strong association between the dependent variable and the independent variable ($R = .458$). R^2 value indicates the amount of variance accounted for by Gender in the level of Spiritual/Religious Practices. In this model 21% of the total variance in Spiritual/Religious Practices is due to gender. Regression coefficient (β) value is -3.29 which is high and its confidence intervals are also close enough. The value signifies that each chance of a Muslim solace seeker being a man would improve the level of their Spiritual/Religious practices by 3.29 units provided that the effect of all

other variables is held constant. t -value is statistically significant which indicates that β -value is significantly different from zero and the slope of the regression line is steep enough. In sum, this finding is highly dependable and shows good confidence in results for extrapolating to the population.

As we have mentioned earlier in the methodology section, the scales available to gauge the level of Spiritual/Religious Practices are different for the solace seekers of different faiths. Therefore, we have used different versions of Spiritual/Religious Practices Scales for our Hindu and Muslim respondents. Due to difference in the counts of Spiritual/Religious Practices, we could not analyse data obtained from our Hindu and Muslim respondents in a single regression model. Therefore, data from the respondents of both the faiths was analysed separately. Therefore, sample comprising only Hindu respondents ($N=259$) was subjected to the stepwise multiple regression. The likely predictors included in the analysis were similar in the previous analysis conducted with the Muslim sample. The findings have been presented in tables 16a and 16b.

Table: 16a:- Significant predictors of Spiritual/Religious Practices amongst Hindu Solace Seekers ($N = 259$) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Religious Sentiments	Regression	2611.859	1	2611.859	66.308	<.001
	Residual	10123.246	257	39.390		
	Total	12735.104	258			
Spiritual Transcendence	Regression	3596.545	2	1798.273	50.375	<.001
	Residual	9138.559	256	35.697		
	Total	12735.104	258			
Search	Regression	4002.387	3	1334.129	38.957	<.001
	Residual	8732.717	255	34.246		
	Total	12735.104	258			
Gender	Regression	4904.561	4	1226.140	39.772	<.001
	Residual	7830.543	254	30.829		
	Total	12735.104	258			
Shrine	Regression	5293.887	5	1058.777	35.998	<.001
	Residual	7441.217	253	29.412		
	Total	12735.104	258			

Table 16a provides analysis about the efficacy of the regression model that predicts our dependent variable significantly that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains almost stable for the next five steps as well.

Table: 16b:-Model summary and Coefficients

Predictors	R	R ²	ΔR^2	β	Effect Size (f^2)	t	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Religious Sentiments	.453	.205	.205	-.570	0.25	-4.546	<.001	-.817	-.323
Spiritual Transcendence	.531	.282	.077	-.370	0.39	-4.019	<.001	-.551	-.189
Search	.561	.314	.032	.112	0.45	.776	.438	-.173	.398
Gender	.621	.385	.071	-4.882	0.62	-5.218	<.001	-6.724	-3.039
Shrine	.645	.416	.031	2.561	0.71	3.638	<.001	1.175	3.949
Constant = 73.076									

Religious Sentiments in our model has entered at first step being most important and significant predictors of Spiritual/Religious Practices within the population of Hindu solace seekers. Regression value (.453) shows a good association between the dependent and the independent variables. R² value indicates the amount of variance accounted for by Religious Sentiments in the level of Spiritual/Religious Practices. In this model 20.5% of the total variance in Spiritual/Religious Practices is due to Religious Sentiments. Regression coefficient (β) value is -.57 which signifies that each unit increase in the level of Religious Sentiments of Hindu solace seekers will result in the decrease of Spiritual/Religious Practices by .57 units, provided that the effects of all other variables are held constant. t-statistics is highly significant which indicates that our coefficient is significantly different from zero and the regression line is steep enough. The confidence intervals of β -coefficient are narrow enough to determine the extrapolation of the findings to the population with good confidence and predictability.

The second independent variable which enters to this model as a predictor is Spiritual Transcendence. The regression value (.531) shows a good association between the predictor and the outcome. The R² value (.282) shows the amount of variance which has been accounted for by Religious Sentiments and Spiritual Transcendence jointly into the total amount of variance of Spiritual/Religious Practices. Here the joint percentage is 28.2% whereas the individual contribution of Spiritual Transcendence is 7.7%. The β -value (-.37) shows that the interdependence of predictor and outcome has a negative orientation in the sense that each unit increase in the level of Spiritual Transcendence is likely to result into a decrease of .37 units in the level of Spiritual/Religious Practices. This kind of association is only possible if the effect of all the independent variables is held constant. The t-statistics is highly significant that indicates that the β -coefficient is significantly different from zero and the regression line is considerably steep. The confidence intervals of β are reasonably narrow and uni-signed that assures that the results could be extrapolated to the population with confidence.

The third significant predictor that enters to the model is 'Search' which is one of the dimensions of Meaning in Life. Regression value (.561) for this variable is indicative of its good association with Spiritual/Religious Practices. The R² indicates that 31.4% of the total variance in Spiritual/Religious Practices is accounted for jointly by Religious Sentiments, Spiritual Transcendence and Search where 3.2% variance has been contributed by Search alone. The β -coefficient (.112) is too low to be able to define the predictive value of Search. The value of t-statistics is also non-significant which confirms that the value of coefficient is

not significantly different from zero and the regression line is identical to the parallel to x-axis. The limits of confidence interval are also placed across zero which is again an indicator that we cannot rely on these findings for extrapolation to the population. These results, however, are good enough to predict about the sample only.

Gender of the solace seeker is the fourth significant predictor with regression value of .621. While interpreting these findings, we need to keep in mind that this is a categorical variable and the dynamics of the numerical indicators might show deviation from that of the continuous variables. The R^2 is .385 while ΔR^2 is .071 which signifies that 7.1% of the total variance in Spiritual/Religious Practices is due to Gender. The negative value of β -coefficient (-4.882) indicates that likelihood of a Hindu solace seeker being a female decreases the value of Spiritual/Religious Practices. Here each chance of a subject being a female reduces the level of Spiritual/Religious Practices by 4.88 units, provided that the effect of all other independent variables is held constant. The t-statistics also approves the strength of this coefficient which is strangely above one due to being a binary variable. The confidence intervals also support our confidence in extrapolating the findings to the population.

Choice of Shrine is the fifth and final independent variable that enters to the model. There is strong association of this predictor with the outcome variable and this is indicated by the regression value .645. The R^2 value .416 indicates that all five predictors in this model jointly cause 41.6% of the total variance in our dependent variable. Rest of the 58.4% variance is caused by the factors that are unknown in this regression model. The β -coefficient (2.561) indicates that each chance of a Hindu solace seeker orientated towards the Shrine of Hazrat Nizamuddin increases the level of Spiritual/Religious Practices by 2.56 units, provided that the effect of all other variables is held constant. The limits of confidence interval for this coefficient are narrow enough which provide enough confidence to extrapolate the results into the population.

Although we have analysed the nature and dynamics of the relationship between the outcome variable and its possible predictors in our model of Hindu solace seekers, we are further interested to see if the similar trend continues within the sub-samples of Hindu solace seekers. Therefore, the stepwise multiple regression was applied on the basis of gender and shrine. Tables 17a and 17b represent the regression analysis carried out with the sub-sample of male Hindu solace seekers.

Table 17 a:-Significant predictors of Spiritual/Religious Practices amongst Male Hindu Solace seekers (N = 146) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Spiritual Transcendence	Regression	256.183	1	256.183	7.589	.007
	Residual	4861.187	144	33.758		
	Total	5117.370	145			
Shrine	Regression	398.916	2	199.458	6.045	.003
	Residual	4718.454	143	32.996		
	Total	5117.370	145			

Table 17a provides analysis about the efficacy of the regression model that predicts our dependent variable significantly that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains stable for the next step too.

Table 17 b: - Model summary and Coefficients

Predictors	R	R ²	ΔR ²	β	Effect Size (f ²)	t	p	95.0% Interval for β	Confidence
								Lower Bound	Upper Bound
Spiritual Transcendence	.224	.050	.050	-.351	0.52	-2.485	.014	-.631	.072
Shrine	.279	.078	.028	1.998	0.08	2.080	.039	.099	3.897
Constant = 60.099									

Just like the regression model with the whole sample of Hindu solace seekers, this sub-sample of male Hindu solace seekers also shows that Spiritual Transcendence and Shrine respectively are significant predictors of Spiritual/Religious Practices. The considerable association of Spiritual Transcendence with the dependent variable is shown by the regression value (.224). R² indicates that this variable accounts for 5% of the total variance in Spiritual/Religious Practices. The coefficient value indicates that each unit increase in the level of Spiritual Transcendence will cause .35 unit increase in the level of Spiritual/Religious Practices, provided that the effect of all other variables is kept constant. A significant t indicates that our coefficient is significantly different from zero and the regression line is considerably steep. The limits of confidence interval of the coefficient, which fall at both sides of zero however negate the confidence over the results to be applicable to the population. Therefore, despite having significant results we need to realize that these results can't be extrapolated to the population and only true to the sample.

The regression value for Shrine (.279) also shows a considerable association. ΔR² shows that Shrine contributes 2.8% of the total variance in Spiritual/Religious Practices. The R² indicates that 7.8% of the total variance in Spiritual/Religious Practices was jointly contributed by Spiritual Transcendence and Shrine. The rest of the 92.2% of the variance cannot be explained by this regression model therefore we conclude that this amount of variance was caused by unknown factors. The coefficient is significantly different from zero and therefore the regression line is considerably steep. The value of coefficient also informs that with each chance of a male Hindu solace seeker being orientated towards the Shrine of Hazrat Nizamuddin increases their level of Spiritual/Religious Practices by about two units, provided that the effect of all other variables was held constant. The limits of confidence interval are although uni-signed but show a broad gap. Therefore, findings of this analysis could be extrapolated to the population but confidence on the strength of results should stay low.

The next regression model deals with the sub-sample of female Hindu solace seekers for which the findings have been tabulated in the tables 18a and 18b and are as under:

Table 18 a: - Significant predictors of Spiritual/Religious Practices amongst Female Hindu Solace Seekers(N = 113) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Religious Sentiments	Regression	1068.375	1	1068.375	42.909	<.001
	Residual	2763.766	111	24.899		
	Total	3832.142	112			
Spiritual Transcendence	Regression	1344.043	2	672.022	29.710	<.001
	Residual	2488.098	110	22.619		

	Total	3832.142	112			
	Regression	1493.415	3	497.805		
Shrine	Residual	2338.726	109	21.456	23.201	<.001
	Total	3832.142	112			
	Regression	1605.523	4	401.381		
Family Type	Residual	2226.619	108	20.617	19.469	<.001
	Total	3832.142	112			

The goodness of fit ANOVA provided in table 18a shows the efficacy of the regression model that predicts our dependent variable significantly that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our ability to predict the dependent variable has improved. This trend remains stable for the next three steps too.

Table 18 b
Model summary and Coefficients

Predictors	R	R ²	ΔR^2	β	Effect Size (f^2)	t	p	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Religious Sentiments	.528	.279	.279	-1.147	0.38	-6.883	<.001	-1.477	-.817
Spiritual Transcendence	.592	.351	.072	-.335	0.54	-3.135	.002	-.547	-.123
Shrine	.624	.390	.039	2.757	0.63	3.079	.003	.982	4.531
Family Type	.647	.419	.029	2.122	0.72	2.332	.022	.318	3.925
Constant = 75.830									

The good and confirmatory feature of our sub-sample analysis is that the results are almost total in consonance to the full sample analysis of Hindu solace seekers. In the current analysis which represents a sub-sample of women Hindu solace seekers, three out of four predictors are same as in main analysis. The only new predictor for women Hindu solace seekers is 'Family Type' that tells if a respondent comes from a nuclear family or joint family.

Religious Sentiments in this model has entered as first and most significant predictor. The regression value (.528) shows a good association of predictor and outcome. The R² shows that Religious Sentiments alone accounts for around 28% of the total variance in the Spiritual/Religious Practices. The β -coefficient (-1.147) is significantly different from zero and its line is steep enough. The value signifies that if Religious Sentiments increases by one unit, it will cause a decrease of 1.147 units in the level of Spiritual/Religious Practices, provided that the effect of all other variables is held constant. The limits of confidence intervals for β -coefficient are however valid for extrapolation of results to the population but since the limits in the population are very wide; one cannot command good confidence on their results in the population.

The next predictor of this model is Spiritual Transcendence which has strong association with the outcome variable (.592). The individual contribution of variance of this predictor into the outcome variable is 7.2% whereas it accounts for 35.1% of the total variance

jointly with Religious Sentiments. β -coefficient is significantly different from zero and signifies that each unit increase in the level of Spiritual Transcendence will cause a decrease of .335 units in the level of Spiritual/Religious Practices, provided that the effect of all other variables is held constant. An observation of the limits of confidence intervals tells that the β -coefficient value could be extrapolated to the population with relatively high confidence. The third variable that enters to this model is Shrine. This predictor has strong association with the outcome variable as shown by the regression value (.624).

Table 19 a:-Significant predictors of Spiritual/Religious Practices amongst Hindu Solace Seekers at the shrine of Khwaja Gharib Nawaz (N=117) Goodness of fit: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
Religious Sentiments	Regression	1531.550	1	1531.550		
	Residual	3952.929	115	34.373	44.556	<.001
	Total	5484.479	116			
Spiritual Transcendence	Regression	1849.950	2	924.975		
	Residual	3634.529	114	31.882	29.013	<.001
	Total	5484.479	116			
Search	Regression	2095.742	3	698.581		
	Residual	3388.736	113	29.989	23.295	<.001
	Total	5484.479	116			
Gender	Regression	2286.347	4	571.587		
	Residual	3198.132	112	28.555	20.017	<.001
	Total	5484.479	116			

The third variable that enters to this model is Shrine. This predictor has strong association with the outcome variable as shown by the regression value (.624). This variable individually contributes 3.9% of the total variance in Spiritual/Religious Sentiments. The β -coefficient value shows that each chance of a female Hindu solace seeker being orientated towards the Shrine of Hazrat Nizamuddin will increase the level of their Spiritual/Religious Practices by 2.76 units, provided that the effect of all other variables is held constant. The value is however significantly different from zero but the limits of confidence intervals show big gap thus we cannot be too confident of this result in the population.

The fourth and the final predictor that enters to this model of female Hindu solace seekers is family type. Again the association of this variable is strong with the outcome variable. This variable individually contributes 2.9% of the total variance in Spiritual/Religious Sentiments. The joint contribution of variance by all four predictors is 41.9% and the rest of the 58.1% variance in the outcome variable is due to some unknown factors. The β -coefficient value (2.122) indicates that each chance of a female Hindu solace seeker representing the joint family will increase the level of Spiritual/Religious Practices by 2.12 units, provided that the effect of all other variables is held constant. The coefficient is however significantly different from zero but the limits of the confidence intervals are too wide to qualify the result being able to be extrapolated to the population with good confidence.

The above table 19a deals with the goodness of fit ANOVA which shows the efficacy of the regression model that predicts our dependent variable significantly that is Spiritual/Religious Practices. An observation of sum of squares for each step shows that regression line fits to the data. F-ratio at initial step is highly significant, showing that our

ability to predict the dependent variable has improved. This trend remains stable for the next three steps too.

Table 19 b: - Model summary and Coefficients

Predictors	R	R ²	ΔR^2	β	Effect Size (f^2)	T	P	95.0% Confidence Interval for β	
								Lower Bound	Upper Bound
Religious Sentiments	.528	.279	.279	-.609	0.38	-3.018	.003	-1.008	-.209
Spiritual Transcendence	.581	.337	.058	-.386	0.50	-3.037	.003	-.638	-.134
Search	.618	.382	.045	.272	0.61	1.413	.160	-1.09	.654
Gender	.646	.417	.035	-3.735	0.71	-2.584	.011	-6.600	-.871
Constant = 70.789									

The results of this sub-sample i.e. the Hindu solace seekers who are oriented towards the Shrine of Khwaja Gharib Nawaz indicate the similar trend which we witnessed in the total sample of Hindu solace seekers. There are four predictors such as Religious Sentiments, Spiritual Transcendence, Search and Gender. Religious Sentiments enters to the model first and shows good association (.528). This variable individually contributes 27.9% of the total variance out of the total variance in the Spiritual/Religious Practices. The β -coefficient value (-.609) indicates that each unit increase in the level of Religious Sentiments of the Hindu solace seekers who are affiliated to the Shrine of Khwaja Gharib Nawaz will result in the decrease of their Spiritual/Religious Practices by .61 units, provided that the effect of all other variables is held constant. The coefficient is significantly different from zero but its limits of confidence interval are too wide that add less confidence in the extrapolation of the findings to the population.

The next significant predictor is Spiritual Transcendence that shows strong association with the outcome variable. Its individual contribution to the total variance in outcome variable is 5.8%. The β -coefficient value (-.386) indicates that each unit increase in the level of Spiritual transcendence of the Hindu solace seekers who are affiliated to the Shrine of Khwaja Gharib Nawaz will result in the decrease of their Spiritual/Religious Practices by .39 units, provided that the effect of all other variables is held constant. The coefficient is significantly different from zero and the limits of confidence interval are narrow enough. This helps us to conclude that our results are good enough to be extrapolated to the population with confidence.

The third predictor of this model is Search which shows strong association with the outcome variable. Its individual contribution to the total variance in outcome variable is 4.5%. The β -coefficient value (.272) indicates that each unit increase in the level of Search of the Hindu solace seekers who are affiliated to the Shrine of Khwaja Gharib Nawaz will result in the increase of their Spiritual/Religious Practices by .27 units, provided that the effect of all other variables is held constant. The coefficient is not significantly different from zero and the limits of confidence interval are falling across zero. This helps us to conclude that the regression line is almost parallel to x-axis and our results are not good enough to be extrapolated to the population. The results are however true to the sample.

The fourth and the final predictor of this model is Gender which individually contributes 3.5% of the total variance to outcome variable. All four variables jointly contribute 41.7% of the total variance to the Spiritual/Religious Practices. The rest of the

It has been very intriguing to see the results of this sub-sample i.e. the Hindu solace seekers who are orientated towards the Shrine of Hazrat Nizamuddin have the similar type and number of predictors which are also in the similar order. The numeric values are however different. Religious Sentiments enters to the model first and shows good association (.468). This variable individually contributes 21.9% of the total variance out of the total variance in the Spiritual/Religious Practices. The β -coefficient value (-.568) indicates that each unit increase in the level of Religious Sentiments of the Hindu solace seekers who are affiliated to the Shrine of Hazrat Nizamuddin will result in the decrease of their Spiritual/Religious Practices by .57 units, provided that the effect of all other variables is held constant. The coefficient is significantly different from zero and its limits of confidence interval are just about narrow that provides suitable confidence in the extrapolation of the findings to the population.

The next significant predictor is Spiritual Transcendence that shows strong association with the outcome variable. Its individual contribution to the total variance in outcome variable is 6.3%. The β -coefficient value (-.368) indicates that each unit increase in the level of Spiritual transcendence of the Hindu solace seekers who are affiliated to the Shrine of Hazrat Nizamuddin will result in the decrease of their Spiritual/Religious Practices by .37 units, provided that the effect of all other variables is held constant. The coefficient is significantly different from zero and the limits of confidence interval are just about narrow that provides suitable confidence in the extrapolation of the findings to the population.

The third predictor of this model is Search which has shown strong association with the outcome variable. The individual contribution of Search to the total variance in outcome variable is 2.9%. The β -coefficient value (-.086) indicates that each unit increase in the level of Search of the Hindu solace seekers who are affiliated to the Shrine of Hazrat Nizamuddin will result in the decrease of their Spiritual/Religious Practices by .086 units, provided that the effect of all other variables is held constant. The coefficient is not significantly different from zero and the limits of confidence interval are falling across zero. This helps us to conclude that the regression line is almost parallel to x-axis and our results are not good enough to be extrapolated to the population under observation. The results are however true to the sample.

The fourth and the final predictor of this model is Gender which individually contributes 9.5% of the total variance to outcome variable. All four variables jointly contribute 40.5% of the total variance to the Spiritual/Religious Practices. The rest of the 59.5 % of the total variance is caused by some unknown sources. The β -coefficient value (-5.913) indicates that each chance of a Hindu solace seeker affiliated to the Shrine of Hazrat Nizamuddin being a female will decrease their level of Spiritual/Religious Practices by about six units, provided that the effect of all other variables is held constant. The coefficient is however significantly different from zero but the limits of the confidence intervals are too wide to qualify the results being able to be extrapolated to the population with good confidence.

DISCUSSION

Correlation Analysis:

As per the objectives of the research study, an exhaustive review of literature was carried out, which indicated that a previously known and dependable relationship of the dependent variable and independent variables did not exist. Therefore the choice of statistical analyses had to be primary and exploratory which should have fallen on the lowest hierarchy of evidence establishment. Thus the emphasis was upon exploring the relationship/s with the help of Carl Pearson's Product Moment Correlation. Since the data was collected in two separate groups, Muslim and Hindu Solace Seekers, hence the output

has been listed separately for the mentioned groups. Results for Muslims on correlation analyses indicated no significant inter-correlations between the variables, which could be attributed to many reasons such as the thin line of permeability between religion and spirituality among the followers of Islamic traditions. While the Hindu sample showed significant correlations for all the variables, this depicts that there is a growing upsurge among the followers of Hindu traditions to explore new avenues of spirituality and religion.

Multiple Regression Analysis:

In a particular context of research different variables relate to each other in different ways while indicating varying nature and dynamics of relationships. A certain dependent variable is influenced by many known and unknown independent variables in that particular context. This dependency is not always in a secluded situation and there is always a web pattern of relationships. For example the nature and dynamics of a relationship between a dependent variable and independent variable might change in the presence or absence of another independent variable. Therefore certain research contexts, in which a dependent variable is simultaneously related to many independent variables, are visualized as a single analytical model which is synthesized with the help of multiple regressions. Thus while hypothesizing and conceptualizing a model, we try to identify as many independent variables as possible. The identification of variables is done with the help of various methods including review of literature, field observation and theoretical logic. The review of literature is the most reliable approach to identify the independent variable and the variables identified through it, enjoy the highest hierarchy in the stepwise model of regression. In terms of rigor and dependability, however, there are various grades of literature review. Nevertheless, identification and choice of independent variables is a meticulous job and if done properly, a researcher may end up with a good stepwise multiple regression models.

Reliability Analysis

The Cronbach's Alpha for ASPIRES was .631 for Religious Sentiments and .484 for Spiritual Transcendence, it was .465 for Spiritual Practices Scale-Muslims and .883 for Spiritual Practices Scale-Hindus and for the Meaning in Life Questionnaire it was .587 for Search and .642 for the Presence. The values thus indicate that the scales used in the research study hold significance of high order and are score fairly good on reliability.

Conclusion and Recommendations

The purpose of the study was to determine the role of spiritual/religious practices in attaining spiritual transcendence and meaning in life among the people who visited Sufi shrines in search of solace. In order to assess the motivation of their attendance at shrines and evaluate the experiences therein, it was hypothesized that spiritual/religious practices play a pivotal role in the personal lives of people who were regular visitors of Sufi shrines irrespective of their religious identities. Recent advances in psychological research have already pointed out that there is a probable correlation between complex cognitive processes and corresponding neural activities of human brain pertaining to specific behaviour. This research has largely emphasized upon developing better understanding of why people behave spiritually, in terms of cause-effect relationship.

Primarily aimed to provide psychological explanation of the spiritual behaviour with reference to Sufism and its impact on the lives of those engaging in spiritual behaviour, it attempted to explore the contrasts and commonalities of being spiritual but not religious. It was also an attempt to quantify spiritual transcendence and meaning in life and what role exactly do spiritual/religious practices play in making an individual experience both, any one or none. As the study involved a sample drawn from the population presumably spiritually motivated, it was very interesting to have learnt about the spiritual practices and thus spiritual experiences through which participants tried to find solace in their respective lives.

The results of the study depicted very interesting findings, on basis of which some very intriguing and substantial conclusions were made and they are as under:

- No statistically significant inter-correlations were found amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers.
- No statistically significant inter-correlations were found amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim Male solace seekers.
- No statistically significant inter-correlations were found amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim Female solace seekers.
- No statistically significant inter-correlations were found amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers at Khwaja Gharib Nawaz Shrine.
- No statistically significant inter-correlations were found amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Muslim solace seekers at Hazrat Nizamuddin Auliya Shrine.
- There were significant predictors of Spiritual/Religious Practices from potential predictors such as Spiritual Transcendence, Meaning in Life, Age, Gender, Religion, Civility, Family Type and Levels of Education across the sample of Muslim solace seekers.
- There were statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers.
- There were statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu Male solace seekers.
- There were statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu Female solace seekers.
- There were statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers at Khwaja Gharib Nawaz Shrine.
- There were statistically significant inter-correlations amongst Spiritual/Religious Practices, Spiritual Transcendence and Meaning in Life in the sample of Hindu solace seekers at Hazrat Nizamuddin Auliya Shrine.
- There were significant predictors of Spiritual/Religious Practices from potential predictors such as Spiritual Transcendence, Meaning in Life, Age, Gender, Religion, Civility, Family Type and Levels of Education across the sample of Hindu solace seekers.

Since the study offered valuable insights into spirituality in individual practice, it is inevitable to consider spirituality as the sixth factor of personality, making the case for transpersonal psychology. As the study involved a sample drawn from the population presumably spiritual, it was intriguing to explore the spiritual/religious practices as well as

spiritual experiences through which participants tried to find solace in their respective lives. Future researches might concentrate on non-spiritual/non-religious populations, keeping cult of unaffiliated and spiritual but not religious. The span of future researches might also include other schools of Sufism like Qadriyya, Suhrawardi and Naqshbandi in order to investigate the dynamics therein. Sufism has grown into something which has transcended the boundaries of faith based spirituality and religion alike and hence it should remain a subject of scientific enquiry for the scientists dealing with behaviour and cognition.

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Patriarchy, Employment and Mental Health among Married Couples: Empirical Perspectives from Uttar Pradesh

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ABSTRACT

Employment status of wives in India has been debated vastly, more specifically in northern India, as the societies therein have been patriarchal in nature and function. There has been growing evidence that it affects self-esteem and psychological well-being of husbands in more than one way and more often adversely. The present study attempted to compare working and non-working couples on self-esteem and psychological well-being. The sample size for the study was 40 individuals consisting of 20 married couples (10 couples with working wives and 10 couples with non-working wives). Rosenberg Self-Esteem Scale developed by Rosenberg (1965) and Psychological Well-Being Inventory developed by Ryff (1989) were used to obtain primary data. Appropriate statistical methods were put to work for data analysis. The results showed a sharp deviation from the hypotheses which presumed that the wife's employment status could affect self-esteem and psychological well-being of husbands substantially and even cause distress and other psychological conditions leading to domestic violence and separation in some cases.

Key words: Self-Esteem, Psychological Well-Being, Employment, Husbands, Wives

Introduction:

As the world ushers into new era of living standards and lifestyles, societies have been experiencing changes which have redefined the institution of marriage. Men are no longer the sole breadwinner of the household due to the increasing work culture among women. Since the times of industrial revolution, women had remained only a part of labor force which fueled the industrial sectors. The scenario has been changed ever since and representation has become partnership as a result, the world today has witnessed remarkable contribution to the overall development of the society. Women have become the axis of social systems across all walks of life, continuously striving for excellence in their respective fields, often outshining their male counterparts. This sea change in the socio-economic status of women has changed perceptions and dogmas of the familial traditions.

Societies at present have begun adapting to the new gender roles as the women pass by housekeeping and babysitting, which had previously confined them to the precincts of their

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houses. Although this transition in women's vocational behavior has been largely welcomed and appreciated, there have been voices against it. It has resulted in issues which have become concern for behavior researchers. Marital maladjustment arising due to romantic jealousy have largely affected the self-esteem and psychological well-being of spouses among married couples, in the most severe cases, the outcomes are generally separation and divorces. Researchers have found causalities running from female labor force participation (FLFP) to divorce rates and many of them have associated the both while others have kept them aloof and have rather inferred that working women are more independent, (Nock, 2001); the incomes of husbands and wives are largely substitutes, leading to a conclusion and scientific assertion that marriage between equals is less valuable (Becker et al., 1977); there has been increased marital conflict within the couples which have working wives (Mincer, 1985; Spitz and South, 1985), etc. Rising divorce rates have interestingly enabled women to gain increased incentives to be invested in their respective careers which would then serve as an impactful self insurance towards livelihood followed by separation (Greene and Quester, 1982; Johnson and Skinner, 1986).

Marriage has been an integral part of civilizations and societies since time immemorial; it characterizes the sacred union between two persons to begin a family together, often as a social contract. Marriages also lead to the formation of social fabric of societies, changing lifestyles and increased levels of stress have led to a decline in the tolerance of spouses and placed new challenges before the institution of marriage. Consequentially the rates of divorces have been growing around the world and there are increasingly more cases of separations, further adding to the degradation of the social structure of families. This has led to distortion in societies at all levels and its effects have been influencing men and women alike, imposing vulnerabilities upon children of such marriages due to lack of proper parenting and due attention. South Asian societies have always looked upon divorces and it has been a taboo subject for long due to the societal pressure it renders upon the men and women involved. Of late, the societies have begun accepting the divorces as a remedial solution to marital maladjustment due to a plethora of reasons including human rights activism, feminism and media advancements. It has been a matter of great curiosity and research for behavior scientists as to what exactly leads to bad marriages.

Researchers have attempted to answer such questions and one of the answers is the employment status of women in the marriages. A research perspective based upon the dominant male breadwinner/female career economic model of the familial structure suggests that women's employment status has represented a potent force which is believed to be driving divorce rates across the globe (Hobson 1990; Kalmijn and Poortman 2006; Ruggles 1997; Schoen et al. 2002). Another perspective suggests the former and has functionally challenged the microeconomic prediction of a positive association (Cooke 2004; Cooke 2006; Greenstein 2000).

Societies across the civilizations have long remained male dominant and transitions like increased women employment have raised brows and concerns in wake of rising crime incidents against women. People have mixed feelings about the growing work culture among women, there are some who appreciate the fact that women are shouldering responsibilities and then there are others who feel challenged due to the same. Positive and negative effects of growing women employment have been observed and analyzed for a better understanding of the situation but it can't be overlooked that there have been considerable influences of women's employment on self-esteem and psychological well-being of men, in a marriage. This research aims to investigate the effects of working statuses of wives in a marriage on the self-esteem and psychological well-being of husbands and wives.

A Canadian research finding about life expectancy suggested that it is 78.3 years for men and 83.0 years for women (CBC, 2010). At some point of time in their lives, individuals can think of themselves being often single, mostly married, often divorced, in some cases remarried or widowed, often living with children or living with an elderly parent or living alone as the cases may be. So it could be well understood that marriages could be revisited during the course of lives of people due to many other reasons and the interplay of one or more reasons could lead to the annulment of a marriage, the most prominent reason for marital maladjustment being the employment status of women, psychology is interested in finding out what happens when and what behavior interventions could be implied to save a marriage from collapsing.

Patriarchy

Patriarchy is a structured social system existing in most of the societies across world, according to which men have power and control over women, regardless of the relationships between them. As society entails several groups and their relationships within and in entirety giving shape to a community, it does have a character in familial setups and often that is patriarchal. The nature and concept of patriarchy has been defined by different thinkers in different ways, which focus on the different disciplines they came from. Mitchell, a feminist psychologist, has used the word patriarchy so as to refer to the kinship systems in which men exchanged women (Mitchell, 1971). According to modern psychology, women's biology determines their psychology and, therefore, their abilities and roles. Sigmund Freud, for instance, had stated that for women anatomy is destiny. In his view, normal human was male (Freud 1977).

Power is inarguably linked to privileges in most of the societies in India and there are numerous cases in which the use and abuse of power and privileges have caused psycho-social distress. In a patriarchal system where men enjoy power and privileges more than women, it is believed and followed religiously that women are not entitled to perks, privileges and power, whatsoever may be the situation. Although the concept of patriarchy is generally considered as the threshold of feminist movements, yet it has been more informal in nature characterizing the inheritance of losses. With women empowerment round the corner and new waves of feminism, several theorists have attempted to define and decide what exactly patriarchy refers to, and most of them have opined that it is a stratification of power and privileges based upon gender. This envisages quintessential gender discrimination, which has been a social menace resulting into exploitation and harassment in many cases which saw light of the day, notwithstanding those which went unreported. Patriarchy also imbibes privileges of sorts which can be practiced and observed through different objectives and measures but obviously based upon gender. Thus, patriarchy characterizes the institutionalized system of male dominance, thus it could be understood as a set of social relationships between men and women necessarily having a materialistic foundation, and which, though hierarchical in nature and function, establish irrational independence and solidarity among the men, which enables them to dominate women (Jagger & Rosenberg, 1984).

A patriarchal social system boasts of male-dominated power structure across the societies and the relationships enshrined therein as part of its character and functioning. Walby has defined patriarchy as a system of social structures and practices, in which men dominate, oppress and exploit women (Walby, 1990). She has referred to it as a system because this has significantly helped in the rejection of the premise of biological determinism or in other words, the notion that every individual man would always have a dominant position and every woman would have a subordinate one.

Considering the historical premise of patriarchy, during ancient times it was originally a Greek society which went by the name patriarches. The social system in that society had an

arrangement by which power, rights and control was inherited to elder males of the families. So whenever patriarchy is mentioned in research literature, generally it is the society where elder males enjoy privileges and practice controls. A patriarchal society would thus consist of systems that ensure positions of prominence and power which would thus provide more privileges to the elder males. Those positions could invariably include head of the families, leaders of communities and social groups, chief executives in the workplaces, and heads of states.

As the term *pater* refers to father, it is an acceptable wisdom regarding patriarchy that fathers or father figures would be entrusted with authority in a patriarchal setup. Most of the patriarchal societies are usually patrilineal in nature, which signify that the inheritance of titles and property would be essentially through male lines. This kind of inheritance is also imminent in religious traditions and practices where most ceremonies and rituals are presided or performed by males. In contemporary times, it might sound archaic and seem obsolete but the truth stands contrasted, patriarchy has affected the society and social systems in ways which are incorrigible, since they are not just customs but gospels that dictate the modern world.

Sometimes it seems to have come out of the tribal societies where an elder male had the powers and privileges over the rest of tribe that included men and women alike. But as the times changed, things changed, in lieu of liberties women have found them enchained by the shackles of patriarchy. The social arrangement in a patriarchal societies retain a hierarchy among males against the ancient practices where a single elder male exercised control over all others including middle aged and younger male members of the society. In modern times, some males possess more power and privileges ensued by the authorities and positions they hold in the system and such a hierarchy is deemed acceptable to all the members of the societies and groups concerned.

At present there have been reported and unreported examples of cases which have surprised the society in India and in most of them women have faced exploitation and sufferings of all sorts. As women have discrete psychological functions and needs throughout their developmental timeline from childhood to middle age, it is imperative that they must be looked at with a different watch glass. For their welfare and more specifically their mental health, it is necessary that women be considered equals, although slightly different but still equals, since the roles played by women are greater in number than their male counterparts. Women are having an interestingly good share in the gross work force across the sectors hence it is of high importance that their mental health be taken care of, as in some cases they are prime source of income for their families (WHO, 1995). Multiple roles played by women put them under greater stress in their lives and push them at a greater risk of experiencing mental disorders than their male counterparts.

Self-esteem

Self-esteem is a reflection of a person's overall self-appraisal and accounts for his/her own worth. It is an introspective evaluation of worthiness which is expressed in the attitudes the individual holds towards himself/herself. Health and happiness comes home to people who hold a positive view of their own self. People who have high self-esteem are presumed to be psychologically happy and healthy. The word 'self-esteem' traces its footmarks in history as early as 1657, following a long course in proto-psychological lore of phrenology during the 19th century, the term took refuge in the mainstream psychological glossary and rose to fame with celebrated works of American psychologists and philosophers, Lorne Park and William James in 1890. Morris Rosenberg (1960) defined self-esteem in terms of a strong and stable sense of personal worth and made it measurable through self-report testing. Subsequently it became the most accepted definition of self-esteem across the research

disciplines but it involves phrasal overlapping which makes it indistinguishable from the more popular ideas like narcissism and bragging.

Branden (1969) briefly defined self-esteem as, "the experience of being competent to cope up with the basic challenges of life and being worthy of happiness. It has been considered as a two factor approach that has provided the most balanced definition which is seemingly capable of dealing with limits of defining self-esteem, primarily in terms of competency or worth. Branden's description of self-esteem considers it primarily as a basic human need making essential contribution to life process and is often indispensable to the normal and healthy self-development and has a considerable value or survival. It also explains self-esteem as an natural and inevitable consequence of the total of individuals' choices in using their consciousness and singularity.

Rosenberg's self-esteem scale (1965) and Cooper Smith's self-esteem inventory (1967/1981) feature among the most widely used systems for the measurement of self-esteem. The Rosenberg test is considered as the standard system for the measurement making use of a 10 question battery scored on 4 point response system. Across the world people are adjudged on the basis of high and low self-esteem whenever the need arises to analyze their personality type, as it constitutes a very essential part of human persona.

Psychological Well-Being

Psychological Well-Being is understood as a positive state of mind in which an individual feels competent enough to use his/her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life. Individuals ranking high on psychological well-being are generally considered as happy and satisfied regardless of the environmental settings they dwell in. The World Health Organization(WHO)has defined health as not only the absence of illness but a complete state of mental, physical and social well-being (World Health Organization, 1946), thus psychological well-being could be considered as a dimension of mental well-being as per the definition given by the world health organization.

Psychological well-being also refers to the possession o positive mental health (Edwards, 2005). Contemporary research has shown that psychological well-being is a very diverse multidimensional concept (MacLeod & Moore, 2000; Ryff, 1989; Wissing& Van Eeden, 2002), which continues to develop through a blend of emotional regulation, personality characteristics, identities and life experiences (Helson & Srivastava, 2001). Psychological well-being could also advance with age, education, extraversion and consciousness and fades with neuroticism (Keyes et al., 2002).While in terms of gender, research has shown that there is no significant difference between men and women on measures of psychological well-being (Roothman, Kirsten & Wissing, 2003). There is currently universal consent regarding the conceptual understanding of psychological well-being. Bradburn's (1969) early interventions in this context, provided a depiction of the difference between positive and negative affect. Early research was mainly concerned with the life experiences content with positive and negative experiences, subjective well-being and life satisfaction evolved around the Greek word 'eudemonia', which was thereafter translated as 'happiness' (Ryff, 1989b). Happiness is commonly described as the equilibrium between positivity and negative affect. Most of the early measures, such as Diener, Emmons, Larsen & Griffen's (1985) Satisfaction with Life Scale which has been used extensively, had made use of the subjective concept of well-being (Conway & Macleod, 2002; Diener et al., 1985). The Satisfaction with Life Scale required participants to indicate a cognitive rather than affective response in relation to overall satisfaction with their respective quality of life.

Research has suggested that lowering of self-esteem has had implications over psychological well-being of individuals, which has changed our understanding of what it

means for a person to have high or low self-esteem. Besides all good things working women bring home, it has become accepted wisdom that growing work culture amongst women somehow influences self-esteem and psychological well-being of husbands. Also, too much stress incited by lowering of self-esteem and psychological well-being can even make them ill furthering to domestic violence against women. On contrary to these assumptions, there exists a brighter and positive side too, which asserts that the working women have increasingly supported their marriages and family in an effective manner and have contributed greatly for making their marriages a healthy and successful marriage. This research study explores and investigates the relationship between employment of wives and psychological health of their husbands.

Methodology

It was hypothesized employment status of wives might have causal effects to decrease self-esteem and psychological well-being among the married couples with working wives as compared to married couples which had non-working wives. The present research study sought to compare the observations and as expected, there was enduring evidence that employment of wives didn't incite any decrease in self-esteem and psychological well-being among the husbands. To conduct the study in a scientific manner for yielding most appropriate results, a sturdy methodology is the key, as the research study impresses upon the comparison of variables along the groups, a mixed design was incorporated for working out the sample and the observations were recorded likewise.

Sample:

The Sample comprised of 40 individuals who further had 20 couples consisting of 10 couples with working wives and remaining 10 with non-working wives in Bareilly and Lucknow districts of the Indian state of Uttar Pradesh. The individuals were approached personally and provided informed consent and the confidentiality was assured following their participation in the research study.

Tools:

The tools used in the research study were Rosenberg's Self-esteem scale and the Psychological Well-Being questionnaire by Carol D. Ryff.

Rosenberg's Self-esteem scale:

Rosenberg's Self-esteem scale is a ten item Likert scale with answers on a four-point scaling pattern. The answers range from strongly agree to strongly disagree and are scored forward and reverse. Although the original sample, for which the scale was developed, consisted of students, yet it is the most widely used scale for measuring self-esteem worldwide.

Ryff's Psychological Well-Being Questionnaire:

The Psychological Well-Being questionnaire devised by Carol D. Ryff has been used in the study consisted of 28 items, which had questions regarding interests and attitudes, the responses were recorded on a two-point scaling pattern- yes or no.

Scoring:

The items in the Rosenberg's Self-esteem scale were scored in a progressive manner in a descending order. For strongly agree, a score of 3 was given, for agree it was 2, for disagree it was 1 and for strongly disagree a score of 0 was given. The items marked with an asterisk were reverse scored, in that case a score of 0 was given for strongly agree, 1 for agree, 2 for disagree and a score of 3 for strongly disagree was provided. All the scores were added and sum was obtained, higher the sum, higher the self-esteem. The items in the Psychological Well-Being questionnaire were 28 in number and had questions regarding interests and attitudes. For all the projective responses marked by the subjects as 'Yes', a score of 1 was given while for every negative response marked by the subject as 'No', a score of 0 was given.

and finally the scores were added to obtain the sum, which resulted in determining the psychological well-being of the subjects. Higher the score, the higher psychological well-being.

Statistical Analysis:

The statistical analysis began with the conversion of raw scores into scales scores and means (M) of the scores were calculated for each group, followed by the computing of standard deviation (SD) and finally the t-values (t) were obtained. The results were tabulated in order to administer a comparative analysis within the different groups formed and thereafter asserted for the interpretations.

Results & Discussion

In accordance with the research objectives which aimed at determining the effects of employment statuses of women on self-esteem and psychological well-being of their spouses, it was found that, in working wives group, the mean scores of husbands on psychological well-being was 19, while wives scored 18.5, the SD for husbands was 1.76 while wives had 3.34 and t-value was .68 (see Table-I). On self-esteem, the husbands had a mean score of 23 while wives had 22.6, the SD was 2.49 for husbands while it was 2.83 for the wives and t-value was .74 (see Table-I). In the non-working wives group, the husbands had mean score of 17, while wives had 18.1, the SD for husbands was 2.38, while for the wives it was 3.39 and the t-value was .412 (see Table-II). On self-esteem the husbands had a mean score of 21.3 while wives were at 23.5, the SD was 3.40 for husbands while it was 2.79 for the wives and the t-value was .131 (see Table-II).

In the working and non-working wives group, on psychological well-being, the working wives had a mean score of 18.5 while the non-working wives had a score of 18.1, the SD for working wives was 3.34 while it was 3.39 for the non-working wives and the t-value was .79 (see Table-III). In the same group, on self-esteem, the working wives had a mean score of 22.6 while the non-working wives had 23.5, the SD was 2.83 for the working wives while it was 2.79 for the non-working wives and the t-value was .48 (see Table-III).

Among the husbands of working and non-working wives group, on psychological well-being, the mean score was 19 for the husbands with working wives while it was 17 for the husbands with non-working wives, the SD was 1.76 for husbands of working wives while it was 2.38 for the husbands of non-working wives and the t-value was .47 (see Table-IV). On self-esteem, the husbands of the working wives had a mean score of 23 while husbands of non-working wives had a score of 21.3, the SD was 2.49 for the husbands of working wives while it was 3.40 for the husbands of non-working wives and the t-value came out to be .22 (see Table-IV).

On the basis of the obtained scores, it was found that scores were comparatively smaller than the tabulated scores at 0.05 and 0.01 levels of significance with the degree of freedom being 18. Hence it was deduced that the results obtained were non-significant and the hypotheses were rejected likewise.

Table I-Husbands and Wives in working wives group

Variables	Group	N	Mean	S.D.	t	p
Psychological Well-being	Husband	10	19	1.76	0.68	n.s.
	Wives	10	18.5	3.34		
Self-esteem	Husband	10	23	2.49	0.74	n.s.
	Wives	10	22.6	2.83		

Table II-Husbands and Wives in non-working wives group

Variables	Group	N	Mean	S.D.	t	p
Psychological Well-being	Husband	10	17	2.38	.412	n.s.
	Wives	10	18.1	3.39		
Self-esteem	Husband	10	21.3	3.40	.131	n.s.
	Wives	10	23.5	2.79		

Table III-Husbands and Wives in working and non-working wives group

Variables	Group	Mean	S.D.	t	p
Psychological Well-being	Husband (N=10)	18.5	3.34	.79	n.s.
	Wives (N=10)	18.1	3.39		
Self-esteem	Husband (N=10)	22.6	2.83	.48	n.s.
	Wives (N=10)	23.5	2.79		

Table IV-Husbands and wives in working and non-working wives group

Variables	Group	N	Mean	S.D.	t	p
Psychological Well-being	Husband	10	19	1.76	.047	n.s.
	Wives	10	17	2.38		
Self-esteem	Husband	10	23	2.49	0.22	n.s.
	Wives	10	21.3	3.40		

Conclusion & Recommendations:

The results have been non-significant for all the groups and clearly indicate no effect on the self-esteem and psychological well-being of husbands and wives of all the groups taken together. It could be attributed to the metropolitan culture of the cities from where the participants were recruited in the research study. But the fact that there have been incidents of domestic violence and fatal assaults by husbands on their wives due to low self-esteem and psychological well-being cannot be ruled out. So, there is a need to investigate how they are related and are there any transactions between women employment and domestic violence among the couples in which husbands have low self-esteem and psychological well-being.

There is comparatively a greater acceptance of women employment in the metropolitan areas due to the globalization and evolving perceptions about, it could be a reason for the results being non-significant. It could be well stated that across the sample men seem to enjoy the financial liberty and are seemingly relieved of the economical stress, which is otherwise their destiny in case they are the sole breadwinner of the family. Furthermore, it could also be inferred that growing work culture has had positive effects on the self-esteem and psychological well-being among the husbands and wives in metropolitan cities, the case in the semi-urban settings needs an investigation regardless. Since patriarchy refers to the manifestation and institutionalization of male dominance over females and children in the family systems and its extension in society in general, it clearly implies that the men would assume power in all the prominent institutions of society and that the women be denied and deprived of access to similar powers. But it does not essentially imply that the women are either totally powerless or totally deprived of rights, influence, and resources (Lerner, 1989).

As times have changed, perceptions have changed too and women have made their niche in the society on their own through change of roles and personal growth whether through academic or socio-political means. There were limitations in the research study regarding sample specific tool, thus it is recommended that there must be a dedicated tool for measuring such kind of influences in the future researches so as to obtain most appropriate results. Small sample size was another limitation of the study, therefore it is highly advised to the future researchers that they must expand the size of the sample while studying such effects among married couples.

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Policy Research

Effectiveness of private sector and NGOs in improved agricultural outcomes: A rapid assessment of global evidence.

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ABSTRACT

A rapid assessment of evidence (RAE) or rapid review is a type of policy research in the tradition of evidence-based approach in which a policy decision is made on the basis of robust research evidence. The procedure helps to collate the evidence of effectiveness of interventions under review. The method, however, doesn't cover the entire effect available in the repository of knowledge and considers only sources that provide only high effect that is easily accessible. That is chiefly the reason the process is termed as rapid assessment of evidence which is helpful in gaining a quick policy opinion.

The current paper follows rapid evidence assessment and synthesizes the evidence of successful agricultural interventions that have been run by NGOs or private sector organizations. This is a two tiered activity in which evidence from India and evidence from World was accessed and processed separately. The study identifies most effective and efficacious interventions through critical appraisal. The study also analyses as to which identified interventions are feasible to be replicated in the context of India and particularly the state of Uttar Pradesh. In this way, the outcomes of this study could help the policy stakeholders of agricultural development in Uttar Pradesh to identify most suitable interventions with high likelihood of success.

Keywords: rapid review, evidence assessment, agricultural interventions, agricultural outcomes, NGOs, private sector

In order to ascertain the emerging role of NGOs and private sector in strengthening of agriculture in Uttar Pradesh for livelihood security, an evidence-based approach has been followed in which global evidence taken from the developing economies has been synthesized for its efficacy and effectiveness and used to develop general policy recommendations. Such recommendations are important to influence agriculture policy of Uttar Pradesh where the role of NGOs and private sector has to be determined in livelihood

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security. Therefore, research studies assessed for their rigour and credibility were identified with the help of general search, picked from meta-evaluations, systematic reviews and evidence-based impact evaluations. Major component have been referred from a meta-evaluation of IFC- The World Bank Group (Nankhuni & Paniagua, 2013).

Current document provides evidence on effects of private sector and NGOs interventions in overall agricultural development that directly influence livelihood security on certain performance indicators such as: agricultural productivity (yields per acre/hectare); revenues/income/profit of small and medium enterprises (SMEs) and/or farmers; and resulting impacts on well-being of farmers.

Although not necessarily exclusive but the following categories of livelihood related interventions have been identified for the guidance of evidence search for this document:

- 1) Farmer training/SME training (Business edge);
- 2) Enabling farmers' access to inputs and capital goods (seeds, fertilizers, agro-chemicals, farm equipment, micro irrigation);
- 3) Access to Finance (Agrifinance, risk sharing/risk management/insurance markets, warehouse receipt financing, trade financing, etc.);
- 4) Infrastructure (Concessions/PPP for storage, irrigation, transport, Agriports, etc);
- 5) Traditional Agriculture (crops, poultry, other livestock, aquaculture/fisheries, forestry);
- 6) Value-chain activities (farmer organization, linking farmers to profitable markets, EST/certification/fair trade, market development, etc);
- 7) Investment climate (regulatory reform for input markets, (e.g. seeds), warehouses, contract farming frameworks and logistics, sector-level competition policy (e.g. with parastatals, commodity pricing), agribusiness investment promotion, trade logistics reform and sector level reform on incentives and tax);
- 8) Strategic community investments and corporate governance;
- 9) Natural Resource Management (land and water efficiency, E&S standards, adaptation such as risk sharing/risk management/insurance markets, etc.).

Research question:

Present research aims to identify successful agricultural programs deployed by NGOs and private sector organizations in India as well as abroad. The research further synthesizes the effectiveness of these identified programs in objectively ensuring their effect on the targeted outcomes such as livelihood security and elevation of the quality of life of the beneficiaries. Therefore, the following research question has been formulated to guide this review:

“Which agricultural programs run by NGOs and private sector organizations successfully achieve the outcomes like better livelihood security and improved quality of life for the beneficiaries?”

METHODS

A conventional methodology for this evidence-based research was followed whereby a PICO format was determined to steer the study. The *population* was any chosen populations including rural communities associated to farming or allied occupations at village, district and national level in India or other developing countries. Social sub-groups, ethnic communities or tribes were also considered. *Interventions* included any programs supporting agriculture or allied activities for farmers or non-farming agricultural beneficiaries and run

by any well-defined NGOs or private sector organizations. *Comparison* included 'Before' and 'After', 'With' and 'Without', 'More' and 'Less' intervention. *Outcomes* focused at observable, tangible and effective improvements in sustainable economic gains and resultant betterment to the quality of life of the participants.

Search:

The search strategy was designed separately for India based interventions as well as for international interventions. Both searches comprised of four categories of electronic resources for systematic search with terms for title and abstract screening. First category involved major databases such as ISI Web of Knowledge, SCOPUS Science Direct, EBSCO, CINAHL, and Web of Science, second category involved search websites such as google and google scholar, third category involved organizational resources such as CSA Natural Sciences Document Repository, Asian Development Bank (ADB) African Development bank (AfDB), Overseas Development Institute and CEE, fourth category involved directory of open access journals and subscribed journals. Non-electronic and Grey literature was not included.

Inclusion/exclusion criteria:

Intervention studies which followed the designs of total randomization, quasi-randomization, cluster randomization, observational or single studies focusing the outcomes directly or indirectly were used. Considered methods also included econometric analyses, post-investment appraisal reports, technical assessments (e.g. economic/engineering/financial institutions), case studies, sector analysis reports which may or may not depend on cost-benefit analysis, Simultaneous Equation Model, Quantile Regression, Ordinary Least Squares, Generalized Method of Moments, and Principal Components. Researches which studied the targeted outcomes in combination of other outcomes were also included.

Data extraction and synthesis:

Data was extracted and organised with the help of a reference manager and tabulated accordingly. For the included studies, CASP tool was intended to be used for the critical appraisal of the randomized and quasi-randomized studies. Narrative synthesis was used where the use of CASP was not possible. Calculation of pooled effects and forest plotting were not found feasible.

RESULTS

Results out of the synthesized information have been categorized accordingly. For ease of use of results for policy makers, technical details such as search designs, search chart and statistical figures were omitted from reporting. The results have been presented in the form of narratives below:

EVIDENCE FROM INDIA

Before extracting the policy recommendations on the basis of the global evidence, it would be appropriate to cite the briefings from the successful interventions representing India. These agricultural interventions were fully or partially delivered by the NGOs/private sector organizations and their effects were adjudged to be replicable; therefore they qualify in the first place to inspire the agricultural policy of Uttar Pradesh. The extracts of the studies represent certain sub-areas of agricultural development e.g. access to finance, farmer training, innovation grants to farmers, farmer field schooling and food security.

A: Access to finance (A2F) intervention

1. Access to credit: Indian Social banking Experiment (Burgess& Pande, 2005)

Bank branch expansion in previously rural unbanked areas of India between 1961 and 2000. The expansion mainly resulted from a , 1977 new 1:4 branch licensing policy that mandated any bank wanting to open a new branch in an already banked area to do so only if

they had opened branches in four areas which previously have no bank branches. Using the discontinuities caused by the licensing policy the paper estimated the impact of the rural bank branch expansion on poverty. **The intervention was related to private as well as public sector.** University Professors conducted the evaluation. **Rural headcount poverty was reduced by 14-17 percentage points due to** branch expansions into rural unbanked locations. The paper highlighted the **reductions in rural poverty were linked to increased savings mobilization and credit provision in rural areas**, thereby enabling rural households to accumulate more capital and to get loans for longer term fruitful investments.

B: Farmer and Business Training Interventions

1. Private Investment in Capacity Building and its Effect on Sugarcane Productivity (Diamond et al, 2013)

The project interventions with 2000 farmers were mostly in the area of intensive training and extension services during 2009 to 2012. The project team attempted to address critical constraints related to **irrigation and agriculture credit through linkages with the government schemes** and through small provisions from the project. **This is mainly a private intervention.** However some element of the interventions involved the public sector. The evaluation found **positive impact on sugarcane productivity. Productivity improved by 80%** among participant farmers compared to control farmers. However, the evaluation was not able to attribute the increased productivity to any of the interventions provided by the project, probably due to low number of observations that were used in the analysis.

2. The eChoupal village internet kiosk project

ITC Limited, A private company in India, provided Indian villagers access to **information on farming of soybean, understanding of weather, and budgeting involving investments, services and yields** (Goyal 2010). The project also provides “hubs” where farmers bring their produce for quality checks before a price offer is given to them. The simple procurement system by ITC Limited **resulted in savings of Rs 12.9 million in the first year of operation through better quality oil from the soy bought through eChoupal.** Farmers benefited through higher prices offered for their produce (13 percent increase in monthly prices), reduction in transaction costs (looking for middlemen to buy their produce), increased area under cultivation of soy, and increased profits. Other researchers also found comparable results such as Jensen (2007) **got for the populations of fishermen in India** and Aker (2008) for grain farmers in Niger. In both the cases beneficiaries **accessed information on fish and grain prices through their cellphones.** Since the systems generate profits for the companies and the farmers, these success stories are most likely going to be sustainable.

3. The Rise and Fall of Training and Visit Extension: An Asian Mini-drama with an African Epilogue (Anderson et al. 2006)

The **Training and Visit Extension system** was introduced following success of the **Chambal Irrigation Command project** (Rajasthan and Madhya Pradesh states in India) whose success were attributed to the T&V extension reforms. Other possible explanations of the success of the initial projects include: better management of the irrigation services; more timely availability of inputs; close attention of World Bank staff; small scale of the projects. Further needs of the project were: adjusting the design and implementation of the system to different situation needs; evaluating the projects rigorously using independent staff that had no conflict of interest before scaling them up; and assessing the likely sustainability of such costly schemes in the absence of donor funds.

C: Innovation grants to smallholder agricultural producers

1. Supporting local innovation for rural development: analysis and review of five innovation support funds.(Friis-Hansen & Egelyng, 2006)

This desk study reviews 5 innovation support funds or funding concepts: **the Indian 'National Innovation Fund' (NIF) and its associated web of institutions**; the GTZ-funded 'Small-Scale Project Fund' (SSPF); the NGO concept 'Promoting Local Innovation in ecologically oriented agriculture and NRM' (PROLINNOVA); the FAO's project, 'Promoting Farmer Innovation – Farmer Field Schools' (PFI-FFS); and the CIALs in Latin America. The review develops an analytical framework to analyse the innovation support funds and concludes with a recommendation for establishing a global innovation facility that could enhance the **effectiveness of existing innovation support funds and the global expansion of activities by facilitating institutional learning, exchange of experiences between the funds and provision of technical assistance.**

2. Farmer Access to Innovation Resources (FAIR): findings from an international review of experiences.(van Veldhuizen, et al, 2005)

This paper reviews and summarises experiences with various innovation funds: CATFs, CIALs, SSPF, ATIRI, SFFFS (self-financed FFS), NIF, C3F (City-Community Challenge Fund), Innovatie Fonds Tuinbouw and LIBIRD () and translates insights on the following aspects to the operational design of LISFs. It treats a range of elements of grant system administration, **such as farmer-owned funds versus institutionally based funds, level of decentralisation, time horizon, and fund replenishment/fund raising.**

D: Farmer field schooling interventions

1. Evaluating cotton integrated pest management (IPM) farmer field school outcomes using the sustainable livelihoods approach in India.(Mancini et al, 2007)

In an effort to reduce pesticide input and enhance sustainability of cotton production systems, **Farmer Field Schools (FFSs)** were conducted in Southern India. This study was carried out to determine the additional benefits of FFSs in the social and economic arena, using the Sustainable Livelihoods (SL) concept to frame the evaluation. Farmers who had participated in the IPM FFSs perceived a range of impacts much beyond the adoption of IPM practices. **The reduced cost of cultivation allowed for financial recovery from debt and the building of physical assets.** IPM FFS households and production systems were perceived by the participants to have become **more economically resilient** than non-IPM FFS control groups when faced with adversity. In the participants' view, IPM FFSs also led to **enhanced individual and community social well-being**, a benefit valued in particular by the women participants.

2. Impact assessment of farmer field schools in cotton production in China, India and Pakistan.(Panunurak, 2010)

This study analysed the economic impact of a Farmer Field Schools (FFS) training program in Integrated Pest Management (IPM) in cotton in Asia. The program was known as "FAO-EU IPM Program for Cotton in Asia (China, India and Pakistan)". Program objectives were: (i) to gauge the impact of FFS training at farm level on productivity of cotton, use of insecticide and the overall environment, (ii) to assess the efficiency of project investment at the level of each country as well as in total (iii) to evaluate the extent of welfare caused the project. In this study, panel data were collected before and after the training from a total 808 of farmers in the three countries. The study compared three farmer groups namely 1. Participant/trainee farmers (FFS farmers), non-participant farmers of the same village (Non-FFS farmers), and non-participant farmers of different villages but of equal socioeconomic and agro ecological conditions (control group). Results showed that **in all three countries the**

FFS training is effective; FFS farmers use less pesticide and choose those with lower toxicity. The effects of FFS training however differ among countries. In terms of both cotton yield and gross margin, the Chinese participants performed better. On the other hand, in India, **there was no reported effect of economic impacts of FFS training on cotton productivity.** In Pakistan, however, all farmer groups showed lower yields because of uncommon pests in the year after training. **However, the FFS group still increased productivity and gross margin as compared to the other groups.** The knowledge advancements positively affected cotton yield and gross margin in India and China. Financial analysis revealed that **investments in farmers' training pay off in Pakistan and India.** In terms of **social cost benefit analysis, consumers in China, India, Pakistan and the rest of the world gain,** while producers in China and in rest of the world lose. **These results indicate that FFS training in IPM is useful, but program implementation procedures need to be undertaken with integrity.** Also, further studies are required to assess the full benefits from IPM technologies, by valuing the positive effects on environment and human health.

3. **Aspects of cotton and vegetable farmers' pest management decision-making in India and Kenya.**(Williamson et al, 2003)

This study focused on smallholder farmers who grew cotton in India and vegetables in Kenya. The researchers explored the perceptions, pest management practice, decision tools and sources of information of the participants. **Farmers trained under an Insecticide Resistance Management and two IPM Farmer Field School projects** were compared with untrained farmers from the same localities, using individual interviews and participatory group analysis methods. **Trained farmers' decision-making was enhanced,** by the use of more decision tools and new sources of information and technologies and they were generally **more confident in their pest management strategies** than untrained farmers. As a result, **trained farmers reduced their pest management costs** but did not always obtain higher gross margins. Issues of gender, sustainability, economics and group action are discussed, along with recommendations for research and extension to take a closer look at farmers' decision-making processes in cash and subsistence crops.

E: Food security interventions

1. **Adoption, impact and discontinuance of integrated pest management technologies for pigeon pea in South India.**(Ramarao et al, 2011)

The integrated pest management (IPM) program was adopted and its impact was observed on pigeon pea cultivation in Andhra Pradesh, India. Major amongst the components of IPM were **summer ploughing and spraying of Neem Seed Kernel Extract (NSKE).** A regression analysis revealed that **farm size, participation in community-based organizations, ability to recognize the insect pests, education and age predicted the decision to adopt IPM significantly.** There were variations in the extent of IPM adoption among farmers. The adoption of IPM led to **reduced use of insecticides and increased net returns.** Moreover, trend of **new-generation insecticides** led to a termination of IPM practices.

2. **Community-driven development and scaling-up of microfinance services: case studies from Nepal and India.**(Sharma, 2004)

In this case study, the scaling-up experiences of two microfinance institutions have been examined. The institutions are: the Nirdhan Uthhan Bank Limited (NUBL) in Nepal and the **Self-Help Group (SHG)-Bank linkage program of the National Agricultural Bank for Agriculture and Rural Development (NABARD)** in India. The major two community-based drivers are (A)client preferences closely influence loan products which is evident by strong demand to join the program, high repayment rates, and very low dropout rates. (B) The integration of clients into groups has a significant empowering effect, it provides voice and attendant bargaining power to disadvantaged class. Standardization of rules of conduct and

basic service delivery mechanisms (and, in the case of NUBL, standardization of financial products themselves) was key to swift replication in both India and Nepal. In India, NABARD recognized the core advantages of group-based finance **but adopted the linkage model that linked groups of poor women to pre-existing commercial banks**. The NABARD experience is government-led. The explicit and implicit subsidy content of both NUBL and the NABARD program is fairly high, and constant enlargement of both programs is mainly dependent on whether the policy regime of directed credit continues. The high cost of setting up and running SHG-promoting institutions has stalled the expansion of services in the remote north-eastern states of India. **Encouraging the development of self-financing and -regulating group federations** could be an option for both the countries. Such group federations which function well too are emerging in parts of India. These federations may well become the key to consolidating gains made so far in ensuring that the **programs are primarily driven by the interests of clients and making the transition to an eventual end of subsidies**. Finally, the facilitation of growth of institutions is very much dependent on the quality of the broader national environment. NUBLs growth leveled off just as **expansion of SHGs accelerated in India**. This was not a coincidence. The microfinance sector received **supporting environment in India which facilitated its own unparalleled expansion** whereas in Nepal the Maoist insurgency severely restricted its development.

3. Adoption and Impact of Hybrid Wheat in India. (Matuschke & Qaim, 2006)

Amidst the deliberations about the suitability of hybrid seeds for smallholder farmers, this study uses survey data to successfully claim that **farmers can benefit significantly from the proprietary technology** while analysing the adoption and impact of hybrid wheat in the country. There are certain factors involved in the process. While **access to information and credit influence the adoption decision**, farm size and subsistence level do not matter at all. Furthermore, the findings suggest that **adoption levels would be higher if seed prices were reduced**. In the wake of declining public support to agricultural research, researchers suggest that **policies should be targeted at reducing institutional constraints**. It would help to prevent the bypassing of resource-poor farmers by **private sector innovations**.

4. Adoption and impact of hybrid wheat in India. (Matuschke et al, 2007)

A follow up study that took place 2 years after the proprietary hybrid wheat, bred for semi-arid conditions was introduced. The wheat was planted on 1.5% of Maharashtra's wheat area and three districts were surveyed. The mean farm area was 1.5 ha. And survey took place in 2003-04. The comparison was made with conventional (OPV) wheat. Instrumental variables were used to compare yields of hybrid and OPV yields. **Estimated yield increased due to hybrid wheat was 20%**. Report recommends certain agro-ecological requirements such as access to irrigation and soil quality.

LOUD RECOMMENDATIONS

Recommendations on the basis of evidence while interventions were fully or partially delivered by the private sector organizations or NGOs in the context of developing countries:

- Access to finance (A2F) interventions generally produce positive impacts on agricultural outcomes such as adoption of technologies being promoted and resulting increases in production, productivity, and/or farm income and profits. There are, however, many impact assessments which have given mixed results for this intervention.
- Evaluations of farmer or business training provide positive impacts on adoption of technologies but mixed impacts on increases in farm income, profits, productivity and production. Most of the evaluations provide positive results only for some groups of beneficiaries. For example, only dairy producers benefited from increased production and sales in the Millennium Challenge Corporation (MCC) evaluation of the Production

and Business Services (PBS) activities in El Salvador, whereas value chains like coffee, fruit, horticulture, forestry and tourism did not benefit. A significant number of the evaluations, however, showed positive outcomes on production/productivity and farm income or profits.

- Only a few evaluations indicate positive impacts on livelihood of farmers and their households using the indicators of per capita consumption and poverty. On welfare indicators, however, only a few A2F evaluations indicate positive impact whereas farmer/business evaluations indicate zero or mixed impacts. Results from other systematic reviews found that generally there is no/limited evidence of positive impacts of microfinance interventions on well-being of poor people.
- Rural credit markets in developing countries are characterized by irregularities that are barriers to implementation of agricultural technology. For e.g. if there is a deficiency of access to formal credit, it may result in either inability of financial institutions to provide credit because the lenders are not able to enforce repayment from the borrower. There are uncertainties in agricultural production due to weather and crop price fluctuations and animal diseases. Such uncertainties discourage farmers from adopting unsafe but lucrative profitable farming technologies such as improved seeds or fertilizers. Existence of insurance markets can remove these imperfections. Consequently, better access to credit and insurance should cause augmented disbursement on farm inputs and capital equipment that should enable the beneficiaries to accept the relevant technology to increase production and yields. The likelihood is that there will be increased farm profits and incomes thereby augmented household income, which may help to reduce poverty.

PERFORMANCE EVALUATION: WHICH INTERVENTIONS WORK AND WHICH DID NOT:

On the basis of the meta-evaluation activity, policy researchers were able to identify the effectiveness and efficacy of different interventions or their components delivered fully or partially by the private organizations/NGOs in developing countries. The following points provide policy brief to the relevant authorities to design their own interventions or policies by performance evaluation of different interventions under different contexts:

- Old-styled top to bottom methods of providing extension/farmer training did not work. In particular, the Train and Visit (T&V) model that was supported by the World Bank over the past decades failed partly because it did not tailor the training to farmers' needs; it was a "one-size-fits-all" model. To avoid the pitfalls of the T&V approach, Andersen (2007) recommends to evaluate new extension approaches before making major investments in their scaling up.
- Most of the decentralized approaches face financial sustainability problems if some exceptions are left. For e.g., in a relatively successful Uganda National Advisory Services (NAADS) program only 2% of the cost of training farmers is contributed by the beneficiaries. Major part of funding (80%) is paid by donors, 14% by the central government and 4% by the local governments. The program covers about 20% of farming households in Uganda. This suggests that scaling up is most likely unsustainable especially when donors pull out.
- One of the sustainable ways of providing extension is delivery of these services by companies particularly in a model where the company and the farmer share benefits of the extension. As already pointed out, all other models (including the Uganda NAADS), although successful, are heavily dependent on donor funding and are therefore not sustainable. One of the potential services that is expected to produce higher impact is Fee-for-service design in which where farmers determine the type of information that is of priority to them. This method is more effective than free public or public fee-for-

service systems (Anderson 2007). **A potentially successful training model is fee-based nLogue model delivered in Ulagapitchampatti in India.** In this program farmers interact with experts about crops affected by diseases on a web camera and receive advice on treatment (Bhatnagar, 2005 cited in Birner et al. 2006).

- Some flagship training interventions that are very intensive and designed to enable trained farmers to diffuse the training to their neighbors do not show any evidence of trickle down or diffusion effects, especially to be mentioned program is Farmer Field Schools (FFSs). (Rola et al. (2002); Feder et al. (2004) and Waddington et al. 2013).
- Successful projects are marked by many outcome indicators which mainly address farmer limitations along the whole value chain. These are not limited to but mainly to provide training on good farming practices and management skills, to train on postharvest techniques, training on marketing skills and providing inputs in the form of grants or on credit and helping association of farmers to support them access better prices with dealers and ensuring that their produce meet required standards. One of the examples of the reputation of addressing limitations along the whole value chain, including ensuring access to market and certification is success of Kawacom organic (certified) coffee contract farming (Bowlig et al. 2009). Likewise, Drumnet in indorsing horticultural exports in Kenya underlines the need for ensuring market access and certification is an example of unsuccessful intervention (Asharf et al. 2008).
- The pattern of success of A2F indicates that credit availability combined with training on credit handling for the beneficiaries is almost standard method of guaranteeing realisation of goals. Some popular combining factors with A2F are with training and technical advice, with other interventions such as organizing farmers to transport and market their crops to an exporter in a coordinated way. Some of the unsuccessful training projects, e.g. it was difficult for the farmers of Armenia to adopt the relevant technology because the evaluation of the MCC training activities in that country did not deliver appropriate access to credit for the trained farmers (Fortson 2012).
- Information and Communications Technology (ICT)-based models indicate potential as effective means of availing market information. **The eChoupal village internet kiosk project**, (discussed earlier) is an example of success. This program resulted in savings of Rs 12.9 million for the company in the first year of operation through better quality oil from the soy bought through eChoupal. The beneficiary farmers were offered higher prices for their produce, increased area under cultivation of soy, reduction in transaction costs and increased profits by cutting out the middle men. **Similar results were obtained for fishermen in India** and for grain producers and consumers in Niger. In India and Niger, beneficiaries accessed information on fish and grain prices through their cell phones respectively. These success stories are likely to stay on because the systems generate profits for the companies and the farmers.
- There is generally low demand for indexed micro-insurance products and pilot studies have not been scaled up to improve uptake, design of insurance products should involve training beneficiaries on components of the intervention itself (Hill and Viceisza 2010). Other essential components of insurance product designs are borrowers' trust towards the insurance provider (Hill and Viceisza 2010, Cai et al. 2010, Karlan et al. 2012, Karlan et al. 2011) and designing weather indexed insurance products pays out insurance benefits based on individual farmers' experiences as well, not just area crop yields or rainfall results (Giné and Young 2009).

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Education, Employment and Quality of Life among undergraduates of the Indigenous Tharu tribe in Terai Region of Lakhimpur Kheri

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ABSTRACT

Tharu tribals are an indigenous tribal community found in large numbers across the Terai pockets of Northern India. Due to limited access to mainstream technical education, there has been a nominal representation of Tharu youths in the national employment Diaspora of India. As youth of any community holds significance, it becomes their responsibility to provide their community a better approach to comfort living enhancing the quality of life. There has been a poor representation by Tharu youths in mainstream employment, which involves usage of modern and advanced technology. Another dilemma of the Tharu youth is the unacquaintedness of theirs with culture and traditions since they migrate to more civilian areas of the city. Living in seclusion, away from their peer groups in mixed neighborhoods poses additional challenges before them, and they are often found to be having low self-esteem because of their educational backwardness and socio-economic backgrounds. Communicative flaws and poor interpersonal skills make the targets tougher for them and they deem to have a comparatively poor quality of life which could be well attributed to lack of specialized education leading to unemployment. The current paper examined the educational backgrounds and employment statuses of Rana Tharu Tribals hailing from Terai Region of Lakhimpur Kheri, and investigated the relationship between education, employment and quality of life therein. The study comprised of primary and secondary data and several book articles, empirical studies and research articles concerning the related literature were consulted in order to find and understand the link between education, employment and quality of life. Another emphasis of the study was to ascertain how successful are the government policies in Terai Region across the no man's land between India and Nepal, and whether or not they contribute to their development in particular.

Keywords: Indigenous, Tharu Tribe, Education, Employment, Quality of Life

Introduction

The Government of Uttar Pradesh has been working tirelessly and making dedicated efforts to ensure the social well being of Tharu Tribe in the district of Lakhimpur Kheri which has a substantial population of this indigineous tribe that struggles for the conservation of its

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cultural identity. The tribe happens to be an endangered tribe of the Terai region of Lakhimpur Kheri in Northern India, in wake of deforestation and razing off the green belts on both sides of the Indo-Nepal border. There has been a geo-political tussle between Tharu tribals living in 46 small villages located across the mighty Dudhwa National Park and the Uttar Pradesh State's Forest Department (UPSFD) since long. The district administration of Lakhimpur Kheri spends a great deal of time and budget to moderate this conflict between the two, it has been a tug of war over collection of forest based products by the Tharu tribe and other forest dwellers from the core forest areas deemed as reserved. The administration had remedially assured tribal people that all their demands would be met and therefore during January 2011 and several meeting were called to resolve the dispute (Times of India, 2011).

Whatever might be the problem, the tribe faces challenges at every step due to the ongoing transitions in their lifestyles, posed upon by the migration towards more urban areas of the district. In 2015, Akhilesh Yadav, the then Chief Minister of the state of Uttar Pradesh, had realized and taken note that there was an emergent need for the mainstreaming of Tharu tribal community and encouraging the members of the tribes to make efforts for the same. He reiterated that government of the state was dedicated to offer seamless guardianship to its people who seek progress and development by rising above their present situation. Acknowledging the grievances of the tribe, he had said, "These people, who have been living in the jungles and have also helped in saving them face immense hardships & it is the responsibility of the government to help them progress under the provisions of the Constitution and join the mainstream". The Chief Minister spoke for the welfare of all including the Tharu tribe and has expressed a desire to hold a regular socio-cultural event under aegis of the state government, the event would be known as 'Tharu Mahotsav', suggesting that handicraft items prepared by the tribe could be displayed at the upcoming Lucknow Haat, a traditional fete which would display the cultural heritage of the state, primarily showcasing the erstwhile royale of capital city, Lucknow (The Hindu, 2015).

The Government of Uttar Pradesh lauded the efforts of district officials of Lakhimpur and Bahraich, significant parts of which are inhabited by Tharu tribals. The government looks forward to take the plunge of developing a master plan for which funds will be provided, solely dedicated to the tribe's welfare. It is quite evident that the tribe passes through the times of turbulence, surviving a seemingly sharp clash of civilizations, even after the words of development and assistance assurance. Members of the tribe have been lingering in uncertainties since long and in almost seven decades of independence the tribe still strives hard for survival and basic amenities. Professional, Vocational and Technical education has been a white elephant for these dwellers of jungle, but as there is a silver lining in every cloud, the case of Tharu tribe being no exception to this, has taken the challenge to plead for justice on its own.

Education as evident, refers to the act or experience which has a formative effect on the mind, character and abilities of a person. Education in its most formal sense could be known as the formal process through which a society transmits its cultural heritage and its accumulated knowledge, values and skills to the next generation. The new generation of the tribe has moved out of jungle to carve a newer and better niche for them. The children from the tribe have been attending primary school in the nearby areas of Gauri Phanta and Chandan Chauki, for secondary education they have moved to the more civilized areas of the districts at the sub divisional levels like Sampurna Nagar, Nighasan, Palia Kalan and Bhira Kheri. The tribe now has dedicated itself to conserve their identity and heritage by educating their children par excellence, they have been accomplishing these tasks through making schools, colleges, universities and other institutions accessible to their children. Financial assistance from the state and central governments has been the backbone of these activities,

although scarce but the government funds have given a new hope to the tribe through which they see a better future.

All around the globe, across our knowledge-based economies, the role of education has been pushed to establish benchmarks of economic growth, which is actually being underpinned for being the main driver of advances, innovation and high productivity. It has been seen as a medium to transmit knowledge and wisdom through generations and thus education is believed to be the basis of human civilization. The current study aimed at examining the significance of education in the lives of Tharu tribals, observing their orientation towards acquiring education and investigating the employment ratio among the educated youth of the tribe, finally arriving at studying the quality of life in the tribal youth, represented by the college graduates.

The Tharus of Terai

The Tharu Tribe inhabits the Terai Region, more specifically the foothills of the Sivalik Mountain Range which is the gateway to the Himalayas. Terai is the narrow strip of land which spans across 550 miles of the southern border of Nepal, next to northeast India. Found mostly in the Lakhimpur Kheri and Bahraich districts of the Indian state of Uttar Pradesh, the tribe has been living in the land which has a unique bio-diverse appeal. The entire area of their habitat is densely forested having the most fertile land, paving way for agriculture to be their chief occupation. The Tharu tribesmen have divided themselves into several sub-groups; the Rana Tharu tribesmen live in the southwestern corner of Nepal, which is exactly in the forest ranges of Lakhimpur Kheri. Ethnically they could be considered having a Rajput background background, which is a high caste in Rajasthan, another state of India.

Considering the chronological perspectives about this tribe, the great desert of Thar is considered to be their original abode, thus that region could be referred to as their native place regardless of where they dwell at present. There have been numerous stories folklores and legends which suggest that after Mughals arrived in India during the 16th century, a Mughal king wanted to marry one of the Tharu women, notwithstanding which they would have faced dire consequences. So the women and children chose to flee towards east and got themselves settled in this densely forested region. The Tharu men chose to stay back to fight the Mughals. It is said that when the women heard about all their men were killed, they then married the slaves who had been in their service all along the travel from Rajasthan to the Terai Region and settled permanently in their new home in the foothills of Sivaliks. The forests of the Terai are the jungles known for the significant presence of tigers, elephants, wild boars, snakes and malarial swamps. The swamps have been keeping outsiders away, and the Rana Tharu interestingly developed resistance to the malaria, which makes them a unique human race. Thereafter during the next four centuries their own traditions and culture flourished and they found a unique identity for themselves for the years to come.

The Rana Tharu have been leading ordinary, quiet and simple lives for four centuries as of now, they are basically gentle people. They have lived in clusters of villages in mud houses, known as Tharu huts, these houses are well plastered inside and out with cow dung and mud, so fine it feels like silk. When it comes to artifacts, they have acquired mastery over the art of pottery; they generally make almost everything they use by themselves. They give every creation a special touch of art, for instance the walls of their houses are decorated mostly with the relief plaster sculptures and windows which follow a geometric pattern. The houses are large and made in line with the idea of housing a large familial group; the women cook together, care collectively for their children and pass on their cultural heritage and traditions to the next generation successively (The Joshua Project, 2016).

Across the historical accounts focusing on tribes, Tharu tribals were the only ones who were able to reside comfortably in the malarial jungles all along the Indo-Nepal border. Since

the advances on social and community medicine have been making way, mosquito control had become available; it has been reported that there are a number of other people who have migrated into the core concentration areas of Tharus (Nepal, 2006).

The chief occupations of the indigenous Tharu community are cultivation, hunting and fishing, which mean they have no other options to make their living besides those mentioned here. Since agriculture happens to be the main stay of the tribe; the tribesmen practice it greatly in the primitive for growing rice, wheat, gram, pea, barley, mustard, potato, sugarcane and lentils. The main cash crop being sugarcane, they also grow vegetables, tobacco and bananas in backyards of their homes, popularly known as Tharu huts. Rice is their staple crop but they also grow corn largely. The men plow the fields and plant the crops; they also weave the nets which their women use for fishing. They are brilliant hunters and go for hunting in the jungle which is the backdrop to their neat fields of cultivation and villages. The women of the tribe plaster their houses and make beautiful pottery and baskets from recycled agricultural waste.

They have very strong relationship with the forests and water bodies. The entire population of the Tharu tribe is around 100,000 in India, while in Nepal this figure reaches to the number of 1533879, which makes Tharu community as 6.75% of the total population of Nepal (Nepal, 2006).

Tharus have many discerning characteristics which are representatives of its culture and socio-economic systems. The Tharu tribe has their traditional language, which happens to be Tharu across most of the areas inhabited by them and Kochila in some of the specific pockets, besides the much competitive Hindi. The Tribe subscribes to their traditional cultural norms, rites and rituals, which largely vary based upon their geographical locations. They are mostly believers and worship both the spirits of nature, as well as the Hindu deities. Their belief system has seemingly merged animism with Hinduism in sync with their ancient traditions and has taken the form of a new religion of their own. Their dresses are vibrant and colorful, their handicrafts are unique and their culinary habits are intriguing. They follow a different dressing system which differentiates women who are unmarried with married and married with children and vice versa. Their dresses are colorful and very beautifully embroidered; they often buy scraps of left-over fabric from the fabric merchants and each woman puts her own dress together in a very unique and gorgeous fashion. They wear beautiful jewelry and make their own clay pots, cooking stoves, woven baskets and fishing nets which look like butterfly wings. This clothing identification regime could be seen amongst Buddhist traditions where individuals wear distinctively different clothes in order to maintain the unique identity of theirs (Nepal, 2006).

Education and the Indigenous

Education by all means is very complex discipline, often very difficult to measure. One major difficulty which researchers come across often during statistically assessing educational outcomes is the cumbersome measurement of the soft skills, which are believed to be acquired in the societal life of individuals. These skills are attributes of the knowledge attained outside the premise of formal educational system, thus it could be through co-curricular activities, excursions, leisure reading and cultural activities, etc. Also the quality of formal qualifications, such as the university degrees is not necessarily always of the identical levels. In order to measure the overall level of education and its impact thereafter, one would require both the data about the formal education and the data related to other non-formal educational activities, which involve extracurricular activities. It is seen as an increasingly important aspect of the entire process of education and therefore its assessment effectively engaging. Education has its societal benefits but at the same time it is also a basic determinant of the quality of life of most individuals. People who are believed to be possessing limited skills and competencies are often excluded from the recruitments process

of good jobs, thus left with fewer prospects for economic prosperity, linger amidst uncertainties, and as a result experience a poorer quality of life.

Researchers have been opining that the early school dropouts face a higher risk of social exclusion resulting in poverty. Such individuals are also less likely to be active in the civic and societal life, which gets them excluded from political affairs of the society they come from. It is so because quality education enhances an individual's understanding of the world he/she lives in, this further leads to the perception of their personal ability to influence it. Experts have favored public support for acquiring education on the premise that education largely improves the overall quality of life of people. Less is known about the mechanisms, and therein relative impacts of such mechanisms, with help of which advanced education effectively contributes to overall life satisfaction amongst individuals. There have been many researches in this area but most have reported typically the estimated contemporaneous relationship between education and life satisfaction, which has been debated well in previous researches. This equilibrium mentioned here comes into action once income and other socio-economic variables are controlled and are believed to be functional (Frey and Stutzer, 2000; Blanchflower and Oswald, 2004; Headey, Muffels, and Wooden, 2008; Powdthavee, 2008).

The income is naturally seen as the main mediating factor of education on a person's well-being (Diener et al., 1993; Clark, Frijters, and Shields, 2008a, Powdthavee, 2010a), it could be proven good if reversed too. Several scholars have argued the role of education in influencing an individual's life satisfaction with respect of non-monetary channels as compared against the monetary realms which determines the financial status of that individual (Brighouse, 2006; Michalos, 2008).

Oreopoulos and Salvanes (2011) reviewed the popularly known benefits of education and concluded that education was actually one of the most important predictors of one's health status, employability, and probability of being married. Aforementioned predictors are all well-known indicators of life satisfaction (Oswald, 1997; Layard, 2005; Layard et al., 2013). Chen (2012) made his observations by using data from four East Asian countries to depict that the statistical affinity between education and happiness is significantly mediated more by non-pecuniary factors, like the strength of social networks and cosmopolitan experiences, than just the monthly or yearly income. There has been vast empirical evidence in discipline, however, that entire still remains scarce, and the very extent of any indirect effects of education upon the life satisfaction remains imperfectly understood, thus amounting to a meager understanding of quality of life.

Education to Employment

The Ministry of Tribal Affairs is the primary institution that is dedicated to the welfare of Indian tribes. Serving as the nodal centre for the overall policy framing, developmental planning and appropriate coordination of programme that are specially designed for development of Scheduled Tribes' essentially contributing to inclusive growth. The Ministry has formulated projects that are enlisted in the subjects mentioned in the different lists of executive actions of the Government of India. This very well includes allocation of business and other rules, which were incorporated during the year 1961. Initially, the Ministry for the upheaval of the indigenous and tribal people was formed in the year 1999 following bifurcation of Ministry of Social Justice and Empowerment. It was then pledged within the premise of sanctum sanctorum of the government body; that, more a focused approach must be implied upon the integrated socio-economic development of the Scheduled Tribes, that are considered as the most underprivileged section of the Indian Society. It was thus decided and envisioned that all the efforts would be made in a well coordinated manner. Earlier, the issues and concerns of the tribal communities were attended by different Ministries in a coordinated sequence.

The necessity of education has been one of the most powerful bases for bringing about socio-economic development of the Scheduled Tribes, it cannot be over-emphasized. Educational advancement is seen as the stepping-stone to economic and social change furthering to the development. It is considered as the most effective instrument for empowering the tribals. as the Education Division of the Ministry of Tribal Affairs has been making all the possible efforts to supplement the tireless efforts of the Ministry of Human Resources Development, which is the line Ministry responsible for the academic advancement, and the State Governments/UT Administrations by administering and implementing various schemes with the objective of enhancing access to education through provision of infrastructure by way of construction of special hostels for ST students, in some areas they are even planning to bring up Civil Services Coaching Centres which would have housing facilities for the students coming from Tharu tribe.

Several Tribal Ashram Schools are in pipeline and some Vocational Training Centre are nearing completion to start functioning for the maximizing of retention of tribal students within the different stages of school education, leading to promotion to higher learning by providing monetary incentives in terms of scholarships like the Pre-Matric Scholarship, Post-Matric Scholarship (PMS) which have gained popularity amongst the students and they have been availing the benefits of the same. On the other hand Scholarships for better education such as Rajiv Gandhi National Fellowship and National Overseas Scholarship for tribal students have provided a new ray of hope for the children of indigenous Tharu tribe, who could never think of sending their wards for better education and higher education earlier, now believe that their future would be considerably different than their present.

Quality of Life: The Case of Tharu Tribe

As the domain of quality of life is very extensive and corresponds to the issues concerning the objective welfare of individuals; it very well includes occupation, income, working conditions, along with their subjective well-being, comprising of life satisfaction, contentment with present conditions. Quality of Life in case of indigenous people becomes a little crucial to be ascertained because the indicators of actual quality of life are refractive at large. Although, there have been numerous contributions yet when it comes to the assessment of quality of life; the focus shifts towards the contributions which have highlighted the link between education, employment and community welfare. This is to synchronize the emphasis to understand and interpret what exactly represents quality in life for people from different societal backgrounds with already known precincts of the domain.

Blanchflower and Oswald (2004) had analyzed welfare as the supporting indicator of quality of life, which finds substantial support from the schemes and development program dedicated to the welfare of Tharu tribe, irrespective of the agency providing it. In most of the cases, it's the government at the centre which frames policies for the underprivileged classes ensuring their welfare amounting to overall development, while in rest of the cases its state government which takes effective measures to guarantee that the objectives public welfare must should be enduringly met with an emphasis on inclusive growth. Henceforth welfare could be considered an important determinant of the quality of life, more specifically in the case of indigenous people which includes Tharu tribe.

Moretti (2004) has reflected upon the benefits of the timely investment in the higher education, maintaining that it could amount to the transitions in the quality of life. As Ferrante (2009) explains the connection between the role of education and life satisfaction, it becomes interesting to learn more about how education lays the foundation of satisfaction with life among individuals. Greenhaus, Collins and Shaw (2003) have highlighted the prominent link between work, family and quality of life, throwing light upon the psychological framework of satisfaction being related to professional contentment, which further leads to better family life tantamounting to enhance quality of life. Tharu tribals who

had left the home and found a place for them in the mainstream have been leading better lives against what life has been for them in the jungles. They have acquired better education which has catapulted them in an even better condition where they have more sustainable economy and more content family life.

Kapteyn, Smith and Soest (2009) have focused upon the determinants of life satisfaction, with an assumption that it is based on four pillars, including job or daily activities, social contacts and family, health and income. This affirms the assumption that employment is quintessentially an integral part of the idea of life satisfaction, which further strengthens the concerned generalized observations in the studies holding relevance. It could be well ascertained that while analyzing the quality of life among individuals, both at personal and community level, there are arrays of indicators which could be used as the predictors of quality of life. This necessarily includes the indicators related to education and employment, as there is a close link between essential education, appropriate employment and functional quality of life.

People of the Tharu tribe have garnered courage to move out of their cocoons and begun sending their wards to more civilized areas, as there is a growing insecurity of life in the event of deforestation and poaching of wild animals which often results in their migration towards the areas inhabited by the Tharu tribals. They are of view that getting good education to children would fetch them better employment than cultivation at the risk of life in jungles, which would further result in the economic fortification of the families and upheaval of the Tharu tribe in general.

Methodology

The Research methodology for current study had a mixed design, comprising of concurrent surveys of research articles, books and magazines, empirical studies, online articles retrieved from different websites along with group interactions and informal interviews with the students of Tharu community studying at Yuvraj Dutt Post Graduate College (YDPGC), Lakhimpur Kheri.

Participants

The participants were 30 college graduates (12 males & 18 females) of from the *Rana Tharu Tribe*. They were all final year bachelors' students at the Yuvraj Dutt Post Graduate College (YDPGC), Sitapur Road, Lakhimpur Kheri. At the time of study these participants were receiving training for skill development under a CSR initiative of the Tata Consultancy Services, a leading IT company, working as a Public-Private enterprise in many sectors, administering several schemes of the Government of India.

Procedure

Due permissions were taken wherever it was felt essential; and informed consent was given before the interactions actually began. The students were well informed about the nature of the questions, which might be asked during the interactions. The information therein acquired was properly tabulated and the specific indicators were analyzed through qualitative approach, leading to some interestingly good observations. All across the course of research study, the emphasis was upon highlighting the link between the role of education in acquiring better employment, and how better employment could provide better quality of life.

Results

All the students were highly ambitious and were well aware that better education would ultimately make their lives better, of course with better employment. The nature of these findings is pedagogical and establishes that first and foremost, there is an immediate need of educating the tribal youth about education which could make them aware of what subjects to choose as their specialization is based upon their interests. Since the tribe is

scattered across Indo-Nepal border, the relatives of some students had migrated to Nepal and found better lives for them, also this fact has encouraged most of the females to get married in Nepal and make a life and future there. This pattern of migration has been solely dependent on the proximity of Nepalese towns from the forest in which this tribe is based, but most of the students wanted to remain Indian nationals for life. Irrespective of the fact that they seldom get to witness the functional government and experience welfare, there has been a strong sense of nationalism among the students.

The results depicted interesting trends across the observations; there has been a steady growth in the development of understanding towards the selection of comparatively more job oriented education among the Tharu youth. The students have been increasingly selecting the commerce stream believing that it could make them land in better jobs. Many of them preferred studying commerce over science, when asked about the reasons most of them didn't answer. This implies that the students are following some previously established trend which has been set sometime earlier by their predecessors and have relatively insignificant orientation of the subject selection for their education.

Table 1: Frequency distribution of participants

Variable	Category	Frequency	Percentage
Gender	Female	18	60%
	Male	12	40%
	Total	30	100%

There were total 30 students, out of them 12 were males and 18 were females, males formed 40% of the sample under consideration while female made 60% of the sample. There was little or no cohesion in the male and female groups and students were hesitant to interact initially, when told that these observations were for a research study, they started opening up and divulged interesting facts about them and their lives. Undoubtedly, this rare tribe needs more attention from the stakeholders of fundamental development as they struggle for basic amenities in this age of sophisticated instrumentation and extraordinary developments.

Table 2: Frequency distribution of participants' streams of study

Streams of Study	Frequencies		Percentage	
	Male	Female	Male	Female
Arts and Humanities	3	4	25%	22%
Physical and Life Sciences	2	9	17%	50%
Commerce and Business	7	5	58%	28%

It was observed that 7 out of 12 male students were studying commerce, 3 were enrolled into arts and humanities while 2 had chosen sciences as their study programs. Out of 18 female students 9 were enrolled in science streams and expressed a common goal of studying medicine as 5 out of them were preparing for pre-medical exams while being enrolled in a bachelors program. 4 female students had opted for arts and humanities, when asked about why they did not opt for commerce, both replied that they weren't looking for jobs but would like to marry grooms with good jobs. This further implies that the female students of the tribes aren't really preparing for the challenges of the modern world, although there have been many among them who are interested in higher education but all of them expressed an ambition to become a teacher.

Table 3: Career Orientations among participants

Career Orientations	Medicine	Engineering	Vocational	Academics
Male	0	2	7	3
Female	9	0	5	4

When asked about their career orientations none of the male students displayed interests towards pursuing medicine as a career, but they did express to engineering Institutes so that they could earn some job oriented degree/diploma which could fetch them better jobs, such students were 2 in number, while 7 of them expressed a desire to become specialized technical expert and 3 of them told that they would like to become a teacher after receiving higher education.

Female students had shown greater enthusiasm regarding the entire process of interaction and some of them displayed commendable confidence. Out of the total 18 female students 9 showed an interest to pursue medicine as their career while none of them wanted to become an engineer, 5 of them wanted to become dieticians and 4 had a wish to become a teacher in a school. Female students were highly focused in their studies and replied every answer with great zeal but they had an inherent shyness towards the question of higher education to, due to the fact that their tribe practices early matrimony. Summatively, it could be inferred that there is a change of perception that is evident from the inclination of female students towards attaining better education and performing well.

Discussion

Patriarchal legacy has had its share of impact even on the tribals; the females were hesitant to take up corporate jobs and were more interested in homemaking. The males were open to all kinds of jobs and look up to their acquaintances who have got good jobs in the public sector of India. Transitions have begun but since the nature itself is transitory it would certainly require time, but there is light at the tunnel's end. NGOs and other societies have come up to educate the tribal youth about career selections and spreading awareness about the government schemes, the effects of which were prominent across the participants. Formal and structured interviews could not be done due to the shying away of participants as they were never being contacted by any agency for a similar research initiative. But all of them participated in the interaction with great interest, clarifies that there is a great need of the action oriented welfare initiatives for the mainstreaming of the indigenous Tharu tribe.

Education among Tharus is seen as the only medium through which they can work for their upliftment and mainstreaming for it leads to employment if attained in a requisite manner and discipline. Employment, thus is their primary target so as to make their lifestyles better and acquire enduring sustenance. As the results have shown that female students had expressed a wish to study inspired by their desire to get married to an educated and employed groom, it could be deduced that the Tharus have begun taking note of changing their lifestyles and they are consistently working for the same. These trends could suffice for the fact that they are working efficiently on improving their quality of life so as to mainstream their coming generations.

Implications and Suggestions

More such studies and engaging activities could make the students more acquainted with the career choices and options available. The governance needs to reach the doorsteps of the governed, then only the welfare goals shall be achieved and targets met. Tharu tribe happens to be a flourishing indigenous community, well aware of the fact that sustenance and development would only reach them if they chose to adapt to their new environments. Poised and focused the college graduates even dream of becoming bureaucrats now, so as to bring more development and benefits to the community. Further researches could focus upon the migratory activities and employment opportunities among the tribes and role of governments in providing them housing assistance under its dedicated programmes and schemes.

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Ruling on religious life of a pastoral tribe of Nilgiri hills: A study on cosmology and myth.

Keya Pandey¹

ABSTRACT

The purpose of this study is to comprehend and highlight the indigenous knowledge about the cosmology in the religion of the Toda tribe living in the Nilgiri hills of Tamil Nadu, India. Living in the forested areas of the upper Nilgiris, the Todas follow religious beliefs and practices, which are quite rigid. However, prior to an understanding of the traditions, customs, beliefs, and practices, which are the way of life for any tribal people, it is necessary to start from the beginning i.e. formation of their world or universe, in their own eyes. What they think about their universe or world, what are their stories and beliefs, regarding the formation of the universe according to their religion, in other words, the cosmology of their religion, is an important aspect of study, before understanding other elements of their society and culture.

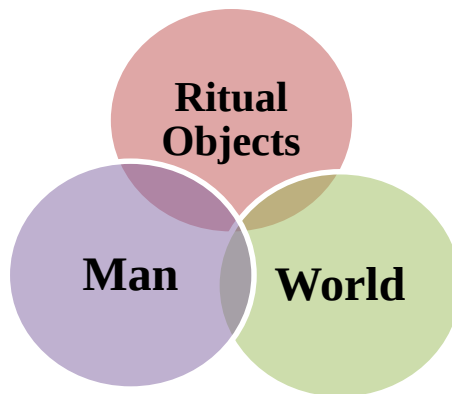
Keywords: Religion, Cosmology, Beliefs, Toda, Myths

In social anthropology, the meaning of cosmology has broadly followed the dictionary one and is closely connected to the empirical study of religions. To a large extent, the two words have been used interchangeably, depending upon theoretical fashions and the predilections of the anthropologist. Some have used it to mean no more than religion. Leach, for example, defined it as 'the system of beliefs and practices which social anthropologists commonly refer to as primitive religion'. (Leach, 1982)

If, however, one tries to abide by more rigorous definitions, then cosmology in anthropological usage is both more and less than religion. In some way or other, the study of cosmology means taking account of the relationship between the whole and the parts: the macrocosm and the microcosm. Because the word 'kosmos' can mean 'order' as well as 'world of order', in Greek thought microcosm signifies not only humans in relation to the universe but also any part of a thing, especially a living thing that reflects or represents the whole it belongs to (Guthrie 1962).

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Hocart was an early theorist who sought to elaborate this point. His aim was to establish that the root idea in human existence is the procurement of life. This, he claimed, is done through a ritual which derives its meaning from the 'life-giving myth'. Discussing Vedic religious principles and practices he states, *'the participants are deliberately seeking to establish an identity between man and the ritual objects, between ritual objects and the world, and so between man and the world, a kind of creative syllogism'* (Hocart 1970).



Various anthropologists have studied the religious practices of the Toda. **Anthony R Walker (2018)**, has discussed the vibrant beliefs in gods and goddesses of the Toda tribe. He explained the changing aspect of religious practices in the Toda tribe, and their continuing strong belief in their sacred dairy cult.

Perinchery (2018), in an article published in 'The Hindu' on 'Wisdom of the Wild' explains the quality of knowledge in Todas with their experiences. He focuses on the quality of experienced knowledge about plants and animals in todas.

Chhabra (2017) in his book *'The Toda landscape'* says about his whole journey of many years in all Toda hamlets of Ooty district. He discussed deeply ontoda clans, toda hamlets, their rituals, sacred things like- water, temple, buffaloes, priest, etc. in his book. He also explained how strongly toda tribe of Nilgiri hills interconnected with their ecology and how beautifully they are living with nature because of their eco-friendly culture. They worship nature and their hills, rivers, mountains, forests, animals, etc. they all are sanctities for them.

Anamica (2017) in her research paper entitled *'Socio-economic characteristics of Self Help Group Tribal Women in Nilgiri District, India'* says about the determinants of tribal women SHG members for joining SHGs. She discussed the participation of tribal women in decision making, socio-cultural linkage, intra- tribal communication, leadership abilities, and entrepreneurial self-efficacy.

Parthasarthy (2013), in the magazine *'The bluest heaven,'* in vol. no.1 the author article *'Primitive Tribal Group'* says about six PTG's of the Nilgiri district and their unique cultural traits. He mentioned because of these PTG's; the Nilgiri district has become an important 'tribal ethnic zone' in the world of indigenous heritage.

Chhabra (2013-14), article in "The bluest heaven" magazine vol. no.1, the author states *'Restoring the Toda Landscapes of the Nilgiris'* talked about toda ecology. He explained the importance of plants, trees, and animals of Nilgiri hills for todas and their relationship.

Selvaraj (2008), in his thesis titled '*Socio-cultural study of the toda - a primitive tribe of Nilgiri Hills in Tamil Nadu*' talk about the social and cultural status of the toda tribe. In his study, he explains social behaviors and cultural rituals and ceremonies among todas.

Ravichandran. M (2004), in his study on '*Alcoholism among the primitive tribal groups of Nilgiri district in Tamil Nadu*' says that many of them argued that their failure in their tribal culture encourages them to take alcohol. In the case of festivals, ceremonies, and family functions, avoiding alcohol with their kith and kin companionship is very difficult for them.

Walker (2003) '*The Toda people of South India -Between Tradition and Modernity*' mentioned that Todas society has a vast difference between traditional and modernity. Toda munds have largely disappeared and modern dwellings built of brick and cement, with tiled roofs; some would not be out of place in suburban Chennai or Bangalore. In 2000 there were 56 occupied Toda munds only.

Faggab Singh Kulaste(2003), in the press clippings The Hindu, Union Minister of State for Tribal Affairs says about the tribal rehabilitation should be complete in all respects, including the provision of power, drinking water and access to nearby towns.

Many indigenous cosmologies have a logical structure to comprise human experiences in rational, spiritual, artistic, emotional and ethical manners and also to invoke an awareness to minimize negative environmental impacts, however with the present hastening social, economic, political, cultural and environmental changes due to globalization these cosmologies and the indigenous modes of life are increasingly endangered worldwide. We have to focus on this endangered indigenous tribe and their indigenous knowledge as soon as possible because this tribe is very less in number and changing their lifestyles and cultural traditions rapidly.

Tamil Nadu is one of the most important states of the southern zone in India, consists of significant tribal groups. According to the 2011 census, the Scheduled Tribe population in Tamil Nadu is 794697 (401068 males and 393629 females) constitutes 1.1 percent of the total general population. The literacy rate of the tribes is 59 per cent. 83.08 percent of the tribal survives in hilly/rural areas and 16.91 percent of them live in urban (town) areas.

The tribal areas of Tamil Nadu can be broadly divided into two major geographical dimensions such as the eastern coastal line and the mountainous regions of the north and west. The average elevation of the Eastern Ghats is 2000 feet and the highest peak is 6000 feet. This range is not continuous in Tamil Nadu.

The important hill ranges of Tamil Nadu are the Jawadhi hills and Yelagiri hills of the North Arcot district, the Kalrayan Hills of South Arcot, the Pachamalai, Kollimalai and Yercadu ranges of Salem, the Anamalai of Coimbatore, the Sitteri hills of Dharmapuri, the Palani hills of Madurai and the Nilgiris hills.

Categories of Tribal Communities in Tamil Nadu:

Based on Characteristics like certain primitive traits, distinctive culture, geographical isolation, shyness of contact with the community at large and backwardness, the Government of Tamil Nadu has so far identified 36 communities as tribals of Tamil Nadu. The list of 36 Tribal communities is given in Table 2.5. They are separately located throughout the districts of Tamil Nadu. Categories of Tribals in Tamil Nadu are:

CATEGORY I	CATEGORY II	CATEGORY III
Those who migrated to the hilly areas of the northern part of the Eastern Ghats in Tamil Nadu from the adjoining plains around 16th Century and mingled with the local inhabitants of those tribes like Malayalies of ITDP areas.	Those who originally belong to or had migrated to the part of the Western Ghats lying within Tamil Nadu those tribes are given below: (i) Todas (ii) Kotas (iii) Kottunayakans (iv) Kurumbas (v) Panias (vi) Irulas (vii) Kadars (viii) Sholagars etc.	Others found in the hilly areas and plains of other districts.

The details of Primitive Tribal Groups and their population in Tamil Nadu, 1961-2011 are stated in the table-1.0.

Table-1.0 Primitive Tribal Groups and their Population in Tamil Nadu, 1961-2011

Source: Census of India, 2011.

Population (in numbers)							
Sl. No.	Name of PTGs	1961	1971	1981	1991	2001	2011
1	Irulas	79,835	89,025	1,05,757	1,38,827	1,55,606	1,89,661
2	Kattunayakans	6,459	5,042	26,383	42,761	45,227	46,672
3	Kotas	833	1,188	604	752	925	308
4	Kurumbas	1,174	2,754	4,354	4,768	5,498	6,823
5	Paniyans	4,779	6,093	6,393	7,124	9,121	10,134
6	Todas	714	930	875	1,100	1,560	2,002
Total		93,794	1,05,032	1,44,366	1,95,332	2,17,937	2,55,600

Most of the tribes in the State are cultivators, agriculture laborers or dependent on forests for their livelihood. There are thirty-six Scheduled Tribes of varying numerical strengths in the state. Most of the Scheduled Tribes live in hilly and remote areas by primitive subsistence living and a large number of them are food gatherers by tradition and they are widely distributed in all thirty-two districts in Tamil Nadu state.

The Nilgiri Hills

The Nilgiri is the least populated district of Tamil Nadu with 7,62,141 (2001 Census). The Badagas, Todas, Kotas, Kurumbas. The Toda, Kota, and Kurumba tribes are living only in Nilgiri district of Tamil Nadu in India (District Handbook 2001). They constitute the dominant tribal group among other tribal groups in this district. This district has the maximum concentration of tribal population among the other districts of Tamil Nadu. According to 2001 census, the total tribal population in Nilgiri district is 28,373, which constitutes nearly 3.72 percent to the Nilgiri district population. Out of 36 Scheduled Tribes, the Government of India identified six tribal communities as Primitive Tribal Groups

(PTGs) on the basis of a *pre-agriculture level of technology, a stagnant or declining population, extremely low literacy and a subsistence level of the economy.*

These six Primitive Tribal Groups are;

- (i) Todas – exclusively living in the Nilgiri district.
- (ii) Kotas – exclusively living in the Nilgiri district.
- (iii) Kurumbas – exclusively living in the Nilgiri district.
- (iv) Irulas – living throughout Tamil Nadu state including the Nilgiri district.
- (v) Paniyas – exclusively living in the Nilgiri district.
- (vi) Kattunayakans – living in throughout Tamil Nadu state including the Nilgiri district.

The Todas of Nilgiri Hills

The Todas are the original inhabitants of Nilgiri Hills; they are the nature worshipping tribe living among the Nilgiri mountains in Southern India. They are one of the most picturesque tribes in India. They have their own language, rich arts, and crafts and a unique way of community living. The Toda people are a small pastoral tribal community. Before the 18th century and British colonization, the Toda coexisted locally with other ethnic communities, including the Kota, Badaga, and Kurumba, in a loose caste-like society, in which the Toda was the top ranking.

During the 20th century, the Toda population has hovered in the range 700 to 900. Although an insignificant fraction of the large population of India, since the late 18th century the Toda have attracted a most disproportionate amount of attention because of their ethnological aberrancy and their unlikeness to their neighbors in appearance, manners, and customs. The study of their culture by anthropologists and linguists proved significant in developing the fields of social anthropology and ethnomusicology.

Venugopal (2002), an article in *The Hindu* on 'Save Nilgiri Campaign' in his article declares that the United Nations proclaimed 2002 as the International Year of Mountains (IYM) to increase the International awareness of the global importance of mountain ecosystems.

Douglas (2002) in her book '*Natural Symbols explorations in cosmology*' has done a classic work and shows how certain forms of social life bring forth regularly the same varieties of symbolic expression. Though *Natural Symbols* is a book about religion, it is also concerned with secular symbolism. It has stimulated new insights and provoked reappraisals of current orthodoxies. Above all, it provides a way to think beyond our cultural prejudices.

Acharya (2002) in an article in *The Hindu* on the topic 'Where nature crises', says about the Todas of Nilgiris hills and their most prized asset buffalo and both are struggling for the survival.

Zvelebil (2002) in his article '*The various hypothesis of Toda origin*' noted that they are the last tribe of Irralities, Scythians, Arab Immigrants, of Babylonian origin, and they are ruminants of Alexandra the Great soldiers.

Sidhartha's (2001) in his article in 'The Hindu' magazine the author talk about '*Rituals that Time forgot*' and mentions that many of the traditional rituals followed among the tribes have forgotten. Santhal boys and girls are not allowed to see each other, but it has changed. The Siddis of Rajkot, the father of the Bride, tie the knot in a thread every day till the boy and girls are reunited, but at present, it is not in practice.

Anklesaria (2001) in his article in *The Hindu* magazine entitled '*Vanishing Life Styles*' says about tribal religions are animistic. The mountains and rivers, wind and rain, thunder, and lightning, have supernatural power in every facet of life. The Sun and Moon are the most sacred as one on the Bible would be for a Christian.

Rao (2000) in his article '*Fighting for the cause of Tribals and Environment*' says that at a time when environmental awareness was just a nebulous concept in the country, a Dehradun based Non-Governmental Organization (NGO) created a history of sorts by

successfully seeking judicial intervention in the cause of environmental protection for the first time in the history of Modern India.

Parthasarathy (2001) in his Ethnographic Report on '*Kurumbas of Tamil Nadu*,' states that the Kurumbas living in Nilgiris forest is different from the kurumbas living on the plains. They differ much in their native environment-oriented occupation. Kurumbas who speak Kurumbadi dialect and live on the hills near the forest are the original kurumbas.

Zvelebil (2000) in her paper on '*Cultural studies on the Nilgiris*' says that the assumption of the antiquity, the primitiveness of the Highlanders, contains the suggestion that the well-known economic and tribal symbioses of the various highland communities, like Todas, Kotas, Kurumbas, and Irulas, have possessed a jaman-like relationship.

Omvendt (2000) in his article in Hindu magazine under '*Unfair The label*' says that it surprises the Adivasis still referred to as tribes and today they are classified as Scheduled Tribes. Today they are the minority in these regions also, losing most of their land and their livelihood.

Prince Peter (1955) in his study on '*The Todas*' makes some additions and connections to the W.H.R. Rivers book, about women's household duties. But this is income; women do the cooking in the ash and can handle and cook milk from the putir (ordinary non-sacred buffaloes). Women can also milk putir and even go inside a putir (buffalo pen).

Von Furer. C & Haimendorf (1954) says in Man's Journal under '*Hereditary Friendships and Inter-Tribal Sex Relations between Todas and Mudugas*,' that the Todas might have received the sickle-cell trait from older Southern Indian communities. They also wrote, many of the village headmen houses, but the wife remains in the house, and the Toda visitor assumes the role of husband.

Emeneau. M.B (1953) '*The Todas and Sumeria*' says that the Toda ritual involves utterances of several god names, which may derive from Sumeria. Thus traits of Sumerian culture can be seen among Todas, which cannot be either proved or disproved.

Mandelbaum (1941), his paper in the social science Vol. 43 on The BOBBS- Merriell reprint series entitled '*Culture change among the Nilgiri tribes*' reprint from American Anthropologist, states that how culture is changing in the tribes of Nilgiri hills. He talks about Todas, Kotas, Irulas, kurumbas and katonayakas cultural change and reasons behind these changes.

Emeneau. M.B (1939) in his study about '*The Christian Todas*' says that dancing of tribe is a part of every social occasion. It is performed at religious ceremonies, but also at funerals. Every man, woman and child dances among the tribes, but, as far as the Toda Christian women are concerned, they never dance. Among the Christian Toda, these social customs have abandoned. Funerals and weddings conducted in a Christian fashion.

Emeneau. M.B (1939) in the Journal of American Folklore, observed that the subjects of the songs are a close match for the Toda culture and those interests. Every event in their lives is likely to be sung about on the spot or immediately afterward. Some songs will be remembered for weeks or years or generations, usually, because the events they commemorate are of sufficient importance to come to mind again and again.

Ross King. W (1870-1871) on the topic '*The Aboriginal Tribes of the Nilgiri Hills*' in the journal of the Anthropological Society of London explains that there is a striking similarity between the rites, practices, and monuments of the Todas and those of the ancient Celts of Britain. He also states all tribes of Nilgiri Hills- Toda, Kota, Irulas, and Kurumbas have a special characteristic, features, and peculiarities concerning their very curious social customs, religious rites, and ideas.

The pastoral Todas have lived on the high Blue Mountains of the Nilgiri Hills in South India. Todas shared the Nilgiri Mountains with other Scheduled Tribes, also like Kota, Kurumba, Paniyas, and Kattunayakas and communities called Badagas, who are dominant in overall population in Nilgiris. A Toda village commonly comprises six to eight huts for individual families. Mostly it is located at an elevation (slight) near the forest and a stream. A typical

Toda hut is in semi-barrel shape in which the barrel split longitudinally, but now no barrel-shape houses are present.

Presently, some Todas are working in the government sectors also, and they have a tie-up with the government agencies through which they receive loans for shawl embroidery works and sell them through these agencies. The majority of the Toda population is shifting their occupation from pastoralism to agriculture. They are also engaged in small-scale farming and produce vegetables and sell them in the nearby markets. Apart from pastoralism and agriculture, some women do house chores, taking care of children and guests and spend most of their time doing traditional Toda embroidery. Most of the women and girls are joined with Self Help Group (SHG), doing Toda embroidery and earned from that. The field centre shows that most of the selected population is involved in private jobs like driver, mechanics, milkman, shopkeepers etc. and their percentage is 52 %. 23% Todas are engaged in agriculture. No person found who was working in tea or coffee plantation.

Today the Todas are more educated and modern than many of his other tribal colleagues. Now they are engaged in agriculture and dairy farming. However, the majority of the Todas are educated now. Toda parents want their children to focus on studies rather than Toda culture and this is also one of the reasons why youngsters do not know much about their culture and religion. Most of the schools are situated in Ooty town and Toda children go by school buses. Private schools do not provide any concessions to Toda children. Most of the Todas are illiterate who belongs to age group of above 50 years.

The education status of Todas in which maximum number of todas came under high school which is 35.8 and minimum is 0.4. The field figure shows only one person is doing PhD in Toda communities. The sources of water in Todas are common tap, handpump, and stream. In most of the munds common taps are there like one in 3-4 outside the houses, not individual taps for drinking water. And for hand pumps it is one in each mund, but most of them are not in a working position. Some Todas are still using stream water because of no other source of drinking water, which is collected by the Todas in a big whole and then used for the drinking and other purposes which is unquestionably not good for Todas health.

Few munds have tap, and few munds have handpumps and few have both but not in working condition. The collection of water is done by the Toda women and for them it is quite difficult to collect water from distant places and then store. Todas are facing drinking water problems because of improper sources of water. Some Todas were using taps in munds for water collection and their percentage is 14.5. In most of the munds the handpumps were available but not in working condition, so handpumps were available but all were not in a working condition. Toda munds are terrible than sources of drinking water. There are few toilets in Toda munds which is made by the Todas only otherwise most of the Todas going for open defecation. Some community toilets are also there in few munds but either they are not in working condition or incomplete.

The condition of roads in some munds is bad in Ooty taluk while in few munds of Kotagiri taluk has no proper roads for Toda people. In few munds roads are available but they are in bad condition and dangerous also because those roads are filled with muddy water and full of cavities. Some munds have good roads upto the Toda houses but some have no munds. So, the condition of roads for Toda munds is not so good.

Divisions and Clans of Todas:

The todas call the places where their ancestors lived 'Nord'. Todas are divided into two important moieties with different clans inside these moieties. They have 15 patriarchal clans

and out of that 15 clans, 10 clans are of 'Thortharsh' i.e. Norsh, Karsh, Thorodr, Mehrdr, Kihrodr, Kerrer (Thortharsh), Pirgodr, Inkieth, Melgarsh, Thehfakh, generally, todas call them 'Thor kulas' and 5 are of Thevilth' they used to call 'Thevykula' i.e. Omkaarsh, Kehrdr, Mothkyorh, Purekarsh, Nerrh (Thevilth). In earlier time the kodleim clan was also there but now it is extinct and todas said because of no male heirs it's extinct. There is a chart given below which shows the two moieties of the toda tribe.

Traditional drink and drugs of Todas:

Most of older toda women are using cream-colored powder perhaps it was opium and afeem mixed with the coffee powder. It is observed that usually some older women rub that powder on their gums and teeth, also taking with tea and coffee by adding this powder in tea and coffee. They are not using all these things publically but secretly inside their houses. In all toda houses men used to drink their local alcohol known as 'soori' which is made by the todas in their munds but not in all munds. In earlier days toda male and used to drink soori only but now boys and men consuming market alcohols also like beer, rum, and whiskey. In marriages, buffalo ceremonies and in other rituals related to joy they drink this local alcohol. Soori is made up of banana leaves, Jamun bark and jaggery then they mix these things with water and boiled in a sealed or tight container then keep that container inside the soil for 30 days. They are using these things because todas believed all things which are given by nature is good for us so, we are using for mild pains. According to the todas they started consuming alcohol and drugs from 30 years (approx.), earlier they only used to drink soori.

The Religion of Todas:

Perhaps todas are the tribe who are least interested to talk about their religion and Gods. Generally todas are avoiding these topics and don't want to share their logical structures behind their beliefs. Also, they never share their spiritual and cultural beliefs in one visit. According to the todas the priest (present) telling not to share anything about their Gods and religious things otherwise our God will punish todas in the form of problems. Presently most of the todas unable to explain their 12 logic behind their beliefs, only a few elders able to explain that. Also, todas are upset with the outsiders who interpret the information about todas falsely. Toda females mostly evade from the discussions about their community Gods and religious beliefs perhaps due to two reason- first, toda females have no roles in their religious system and worshiping and secondly, they don't want to say deep things and pass it on males. Older women participated more in the conversations.

The present depiction of Gods :

Todas have great faith in their gods and goddesses or we can also say that for todas nature is their God. Todas are taking their gods or, creators name in their prayers. Todas have prodigious faith on their community Gods/ Goddesses but they also show respect to the other tribal Gods of the Nilgiri Hills. There are six Gods in toda tribe on which todas believes i.e. Theyvagh (male), Teikirshi (female), Entrey (male), Konoshu (female), and Peeuf (male). The sixth God is Aen who was the father of these five gods and goddesses- Theyvagh (male), Teikirshi (female), Entrey (male), Konoshu (female), and Peeuf (male) and his wife are Thuthirg. The todas eminent god and goddesses are Aen and Teikirshi. 97.8% todas have prime belief in their own community God. According to them their temples and gods have some power and whenever anything happened they called toda priest and apologize for the mistake and promised to the god for not doing any mistakes in the future. 2.2 % of people primarily believe in other gods including Hindu gods like Lord Muneshwara, Murugan, Jesus, etc. and this 2.2% todas include females.

Religious System of Todas:

The milking, churning and lamping procedures of the dairy custom are the base of the greater part of the religious rituals of the Toda Tribe. The lives of the todas are greatly devoted to their buffaloes and their care through ceremonies.

The todas considered their sacred dairy as a temple also. They called that place a temple where the dairy process takes place like milking, churning, and lamping. The todas called their dairy as 'ti', usually contains two compartments one for lamping and another toda priest or palol. The conical temples are high in sanctity than barrel-shaped or small temples. It is believed that the owner of the Conical temples or 'Povarsh' are Thortharsh while thevilth are the serves the sacred temple and dairy as a priest or palol.

Todas considered their dairy items highly sacred and pure which is made up of bamboo only. According to them, bamboo is the purest form of wood and they are using materials made up of only bamboo and earthen pots inside the temple. The dairy items include all milking and churning pots, pots for making of ghee, the lid of the pots, churning sticks, and bent stick. The mud pots are known as 'pin', churning stick known as 'Muth' or 'mothu' and bamboo vessel for the priest is known as 'kani'. The dairy items are always inside the dairies and that never ever touched by the ordinary todas, only the priest could touch and use it for cleaning and cooking during his priesthood.

Todas life is very much devoted to their buffaloes and has long furious horns with big eyes and dull black skin. Their body is covered with yellowish-grey hair. Todas used 'er' for male calves while 'ir' for female calves. All the buffaloes have their own names which are given after their birth. Names are only for 'ir' and males have no name and no importance. Few male calves are there only for breeding. Generally, males calves are given by the todas to the Kotas.

Sacred Dairying Procedures/ Process:

The fundamental objectives of the todas sacred dairy working are for the priest or dairyman of greater ritual purity and to process their milk, buttermilk, butter and ghee inside the dairy temple. The dairying procedures in the dusk are more highly ritualized than those of the morning. In the evening the priest again bows down at the entrance of the dairy temple and touching his forehead to the entrance. Then touches the less sacred dairy equipment and then more sacred vessels. Then he fans up the fire inside the dairy temple and if required, make the fire again by special fire stick called 'Therz', then he lights up the dairy temple's lamp and salutes the lamp and the monny (bell) if available by his right hand as he had for the rising sun in the morning but now this time the priest start praying in front of the lamp. Then the priest starts praying by taking the name of his father and mother, the six Gods of that dairy temple, then sacred names of the munds, sacred clans and well being of buffaloes, pens, then pray for mountains, rivers, grasslands, for toda community, sun, moon, rain, etc.

After the prayer, the priest proceeds to churn the milk he had drawn in that morning. He stores the buttermilk and butter in the mandatory vessels, after this he sets off to milk the temple buffaloes in his charge. Then he keeps the buffaloes inside the pen for the night and salutes the pen by facing his face at the entrance gate and repeating the dairy prayer, he uttered during lighting the temple lamp. His ritual procedure or activities are complete now; perhaps he may prepare or eat his evening meal and sleep for the night either in the outer room of two-roomed dairy temple or if only one room is available in the dairy temple then in an unattached shed which is made by sticks, cane, grasses, and leaves.

Concept of lamp and monny inside the dairy temple:

The monny is a bell or bell-shaped which is made up of mixed metals - gold, silver, copper, brass and aluminium and kept inside the conical temples in larger munds. Earlier it's number was more when large conical temples were there but now it is hardly 8-10. Todas also believed that whenever anything wrong or mistake happened, the snake comes near the temple and this is a sign of mistake regarding the purity of the dairy temple. They used to draw an image of the snake also on the gate of the pen with buffaloes.

TODA COSMOLOGY

The todas are the true believers and worshipper of nature and their all stories, rituals and ceremonies are revolved around nature. The todas neither believe in heaven nor any place of hell. Instead, it describes two categories of place- 'Imunodr' that traditionally means 'the world of living' and 'Amunodr' means 'the dead world' of the todas. a) Stories behind the origin of Earth, buffaloes, and Todas: Todas believe that they are the first human of the earth and before todas only trees and water were there on earth. And they considered themselves as an ancient people and belonged to the Nilgiri Hills. The Todas, believe that the Goddess Theikirshy created todas and their sacred buffaloes in the great Nilgiris. Theikirshy first created the buffaloes by tapping her cane stick on the earth. Then she created the men by tapping at a place on the ground next to the buffaloes. From the right rib of a Toda man, she then created the first Toda woman and then divided the Todas into 15 clans and the buffaloes into sacred and ordinary buffaloes to serve corresponding grades of temple dairies. She also gave the sacred names or kwarms to each clan, to the sacred buffaloes, to the temples, sacred stones, streams, pools, swamps, pen-posts, and sacred bells, which are used in the sacred daily prayers. Theikirshy then divided the Todas into two different subdivisions— the Tharthor of ten patrilineal clans, and the Thevith of five patrilineal clans.

She also gave bows with the sacred names, to each clan, which are used in the 'bow and arrow' ceremonies that legitimize marriage during the 7th month of pregnancy. Some elders said those activities were a 16 form of divine play by Theikirshy and the todas went on to form the rituals and ceremonies of todas. There are some stories among todas that before Theikirshy, her father Aen ruled over the few existing Todas. This was the era of the Gods or the immortal human gods according to the todas who are like todas and lived on the same land with the same lifestyles as todas are living. Todas believed their human gods did not die they disappeared, and they are residing on the hill. One day, Aen called his daughter Theikirshy and told her that he had decided to set up an afterworld (Amnadr) where Todas live after death. Then he asked Theikirshy to look after the living world (Imnadr). So all toda men, buffaloes and trees came to bid farewell to Aen. Aen missed his favorite son, peeuf, and once he was drawing water from the sacred stream. He saw his son's shiny reflection in the water and thought he had fallen inside, and then he tried to reach for his son, at any rate, Aen wanted to get closer to his favorite son. Then Aen disappeared, and his ring left inside the water. Then todas took that ring from the water and kept it inside the toda munda (Nathanadmund). Later, Aen called his wife to join him as well.

A story for Pykara river: There is a story behind the formation of Pykarariver, snakes, and rabbits in todas. One time there were the two priests named Palloal, and Kothmak, once they went to Major Theemotrumund (toda village) to perform a pooja. To perform the rituals of pooja the Palloal had a basket in his hand which was made up of bamboo. At that time, a loaf of honeybees flew and passed. After seeing the honeybees they followed the honeybees by taking different paths into the forest in search of honey. Palloal collected a pot full of honey and hid it while Kothmak could collect only a little honey. When Kothmak asked Palloal that if he found honey or not then Palloal lied and replied that he didn't find any honey. Later when Palloal went the place where he hid that honey to get the pot of honey, suddenly the pot of honey broken down into two pieces as soon as he touched it and the honey turned into

water and started flowing. This place is called Koalicane. That two pieces of broken pot turned into snakes and started chasing Palloal. The Pollaol reacted by throwing a piece of black cloth that he was wearing and throwing it 17 away. The piece of cloth fell on a hare by accident then the snakes diverted towards hare instead of Polloal and then started chasing hare. The path that hare took became the stream of Pykara river. Then that hare hid behind the moon then the snake started trying to eat both the moon and the hare, and half-moon eaten by the snake. Due to this todas believe that whenever snake tried to eat moon the lunar eclipse comes.

The todas believe that on the day of lunar eclipse todas sit and shout together inside their houses so that the snake released the moon quickly. They believe that by shouting the lunar eclipse goes away quickly. On that day todas keep a copper plate filled with water outside their houses for the image of moon on the water inside the plate because they avoid seeing moon directly. Their all buffaloes inside their pen and they also tried to stay at home. Todas believe that the angry snake could harm pregnant women, so pregnant women strictly tabooed going outside the house during the lunar eclipse.

Todas believe that their gods who were born as todas are residing in the hills of the Nilgiris. Every Hill has names, and all belong to the toda deities. For todas these peaks are sacred because of the sign of their deities. According to the toda elders todas not even pointing fingers towards their diety peaks. They believe that these sacred peaks have great powers because of their gods. On plains, the temple or dairy are sacred for the todas. Todas used to cut the grass by their teeth before going outside the mund for some tour or another place and also for some important works due to the sacredness of the land.

Stories for sun, moon, and stars: The todas considered moon and sun supernatural because they are on earth before todas and provide light and heat to todas. Therefore todas salutes sun in the dawn and dusk because they believed that sun is very powerful, so they thanks the sun through salutes. Todas used to draw snake, sun, moon, and horns of buffalo on the stone of 18 the gate of pen. They also draw these images on the gate of the dairy- temple. There are no such stories for stars, sun, and moon Todas considered the moon as pure and sanctified and celebrated all festivals and ceremonies on full moon day. They have some decided days to enter the temple while other days they cannot enter inside the temple not even allowed to take bath on those days. And every mund has different days. There are no stories among todas for stars.

Todas considered the rainbow as a sign of joy and prosperity. According to them, their idea of house building came from the shape of a rainbow. They also mentioned that earlier they make barrel-shaped houses to protect themselves from chilled winds during winters and from big animals. g) Stones or 'Kal': Todas considered stones and rocks sacred because they believed that the stones presented on earth before the todas so, they are sacred also because once a toda priest made a curse when outsiders (Britishers and non- tribals) came near the dairy- temple of the todas then the priest throws sacred water from the temple on those outsiders and they became stones. They considered the stones in their all rituals and ceremony from birth to death and that stones are not common stones they are different and now rarely available in forests of Nilgiri Hills. Those stones sound like metal from inside, and todas used these stone in their temples- conical (on the top in circular shape) and barrel-shaped (leaf life stone).

Cosmo- Religious Beliefs in Life Cycle Rituals Of The Todas

If we are focusing on the cosmo- religious part of todas then we have to cover the life cycle rituals of the todas also for analyzing their beliefs and practices because cosmology revolves

around the rituals and rites. Todas live with their rituals and practices that trace significant events in every part of their life that includes pre-puberty rituals and ceremonies, puberty ceremony, marriage, childbirth, naming ceremony of the child, ear piercing and then death ceremony.

Cosmological beliefs and rituals in Birth:

Todas also have some ceremonies related to the birth of child, naming, ear-piercing, and puberty. Todas considered all these ceremonies in happy celebrations.

Birth of a child earlier takes place inside the house of the todas, but presently, most of the deliveries are taking place institutionally. Earlier deliveries were taking place at the house of the todas with an experienced midwife and older females. During the time of the labor pain, todas called a mid-wife who are exceptionally skilled) to attend the delivery. After the delivery, the midwife cuts the umbilical cord with a knife or sometimes used sharp stone and then gave a bath to the newborn with warm water. After the cutting of the cord and the removal of the placenta, the mother has also given a bath with warm water. After that male allowed to see the baby and the mother. One of the mother's close relative or female assistants take the placenta and wrapped in an old piece of cloth to burry without any ceremony to nearby shola or forest. If the child dies during the birth or stillbirth happened then that assistant wrapped the placenta and newborn in an old piece of cloth and buried together. Todas give more importance to the mother rather than newborn because according to them a mother could give birth to new babies, but a newborn cannot give back a mother; also the newborn has no social relations and identity until it receives its name after the birth.

ii. The face uncovering and naming ceremony of a child: The naming ceremony in todas called 'Vazthpimi' means 'namegiving,' and it is practiced in the third month or second month after uncovering the face of the baby. After uncovering the face of the baby boy the maternal uncle with other male relatives in the dawn takes the baby outside the house the first time after birth to show the hills, buffaloes, rising sun, forests, and relatives, after that touches the forehead of the baby on the outer gate of the dairy-temple and pen. Then the mun throw and catch the baby in the air three times and put some soil on the forehead of the baby near the temple by his thumb. Todas believed that these things make the boy courageous, stronger and powerful. They also said baby boy should first see his God, Hills, land, and buffaloes which are essential parts of the todas life. In this ceremony, the maternal uncle or 'mun' of the baby given a name and give a calf or gift a calf to the baby boy by saying 'pol udtodenin' that 20 means 'I have given a calf', then calls the name of the baby three times. Then mun gives blessings to the baby by touching his toes on the forehead of the baby. Then mun put three grains of barley inside the mouth of the baby and three grains throw away after the three circular rounds around the head of the baby. After the completion of the namegiving rituals of the child, the feast is arranged by the parents of the child according to their status and interest. After this ceremony, the child could start edible things or food. There is no naming ceremony for the girl child. Perhaps her mother takes the baby girl at dawn for the ritual entrance of the mund (a place which is particularly associated with the women, where all women remove their slippers also before entering the mund). She uncovered the baby girl's face and showed the dairy- temple, buffaloes, hills and other things inside the mund and then her father's sister or maternal uncle's wife, both called 'mumi' give a name to a baby girl. The calf is also not given to the girls as a gift like in the baby boys' case. For the evil eye, todas are using a bird's bone and a black stone that is purchased from the market and put around the wrist of the baby. Todas believed that if this stone and bone ring not used for the baby, then the evil eye comes over the child and makes him sick. Presently some todas are using black threads with amulets due to the influence of Hindus or other communities.

Toda marriage ceremonies are unique and fascinating for outsiders. Their marriage rituals are different from the other communities of the Nilgiri Hills. A marriage ceremony is a grand and important function of todas. They used to call their marriage ceremony as 'Pirisith' or bow and arrow ceremony.

Selection of spouse and engagement In earlier days a man's wife was already decided in todas when he was young. The elderly members of both families confirm the relationship between both the families and the couple, i.e. 'nizhtyam' called by the todas. The boy's family or parents fixed a date for visiting the girl's parent's house for the nizhtyam ceremony. On that decided date and day the boy, his father and a few clan members from the boy's side arrive at the girl's house. The nizhtyam is a small and simple ceremony including girls and boy's families. After reaching the girl's house the elders from the boy's side explain the purpose of the visit. Usually, males come to visit the girl's house for this ceremony; women do not accompany the men from the boy's family. The acceptance and agreement for the couple are generally marked by touching the feet and receive blessings from the elders also known as 'KaulKothie.' After the celebration, the boy's family leaves the girl's mund or village. The wife or Tozmokh after she attains puberty comes to her husband's house and doing all house chores and takes care of the boy's family as a family member. Then she starts visiting and staying in her husband's house perhaps after the age of thirteen or fourteen (after her menses). After that, she would be shuttled between her parent's and husband's house several times before pirsith or bow and arrow ceremony. Before the Pirsith ceremony, the relationship between a man and a woman after nizhtyam attains a legal status in the Toda community and the Todas give social consent for the couple to live together.

Procedure of Marriage The bow and arrow ceremony is an important and grand ceremony which is celebrated by the todas on the new full moon day in the fifth and seventh month of pregnancy. In this ceremony, all the toda relatives and non-toda friends invited. Sometimes we can see foreigners (tourists) also because of the unique and fascinating toda marriage. This is a two days ceremony that starts from a day before marriage after full moon. If a child born to a woman who had not been given a bow, it would be an illegitimate child with no patrilineal name or affiliation. This ceremony is for the first child and need not be practiced in children with the same man. If a different man performs this rite again in next pregnancy then he will be the father and the father for all subsequent offsprings.

Divorce practice among the Toda The 'noyam' or traditional council (traditional council of toda elders to settle the disputes between todas) deals with the cases of 22 separation, divorce and other disputes related to the todas. This council includes three people from Tarther moiety and one from the Thevilth moiety and one member from the neighboring community, i.e. Badaga. Though divorces and crimes are rare in Toda families and society. In most cases, noyam or traditional council held due to some general issues in toda society like- if husband and a wife want to separate, if someone wants to live or marry some other's partner, divorce, fights between toda people, etc. Todas are free to choose their partners and free to live with anyone, and this freedom is for both the sexes either the individual is male or female. They are not treating a woman badly if she leaves her fiancé or husband and lives with the other man. Todas are free to live with any partner within their community.

Polyandry During the study, no polyandry marriages are seen among the todas. Presently they prefer monogamy, but pre-marital, extramarital and post-marital affairs are common and allowed in their society. Now, most of the todas said they are not practicing polygamy any more from so many years. Some of the todas even don't like to talk about polyandry system in todas because according to the people outside their community they considered and treat them like low-class people, for them in their society this practice is very bad and

they considered the toda women as dirty women. Mostly toda women avoid to talk on polyandry, and they don't like that practice also because they also want their rights and according to them polyandry is an unfair practice for them so, they prefer monogamy rather than polyandry.

Cosmological beliefs and rituals in Death:

Among all the crunch of life, death makes the additional rituals among the todas. The funeral ceremonies of the todas take many months to carry out. Todas are famous for doing two types of funerals- Green/ wet funerals or 'hasekedu' and Dry funeral or 'marrainolkedr'. Todas used the word 'kherr' for death and funeral ceremonies called 'etvainolkhedr'. Usually, todas burnt the dead bodies after the death with plenty of rituals. The dead body cremated at the end of the first or next day according to the time of the death and duration. Todas kept the dead bodies inside the house, not outside the house. After that dead body placed on the wooden platform or 23 cot with tied toes. The clansmen and relatives procession with the funeral cot by bowing down and touching their foreheads to the ground. Then body is carried on the funeral cot and preceded by the musicians. Earlier music was played by the kotas who in return received the corpses of the sacrificed buffaloes from the todas, but now kotas are not playing music in funerals, so now todas hire bands from the market of the Ooty.

The buffaloes sacrificed on the day of green/ wet funeral. Todas believed that buffalo accompanies the spirit to the next world, but the buffaloes should be female only. For the death of a man sacred buffaloes sacrificed while for domestic woman buffalo sacrificed. Nowadays they are not sacrificing buffaloes for everyone because of fewer numbers of buffaloes and restrictions from the govt on sacrificing of large number of buffaloes. If a deceased person was old and renowned person and demanded the sacrifice of the buffalo after his death than todas sacrifice buffaloes (domestic buffaloes) for him and her otherwise no sacrifices. No sacrifices of buffalo for the death of the children in todas. Nowadays buffalo sacrifice is practicing but not in earlier numbers. Todas never slaughter the buffaloes for sacrifice because they are highly sacred for them they sacrificed the buffaloes by hitting on the center of the head of the buffalo by the back part of an axe in one blow and usually one blow is sufficient. They are practicing one blow method so that buffalo do not bear the pain second time and forget all the things of living world. The todas called this ritual as 'tirikipti'. Todas closed the eyes of the buffaloes when they hit the buffalo. The hitting is done by the male member of the evilth moiety and after that the head of the buffalo corpse with male's waist while in the female corpse with the toe in apposition where the nose of the buffalo touches the toes.

After that one of the close relative as a funeral-goer (mostly brother and son) from the deceased person covered the body with a cloth and this ceremony is for both the sexes. Then the dead body is covered by the logs of 'Jamun trees' and a close relative make a fire by rubbing the fire stick with special grass because they thought this fire is sacred (traditional way of making a fire in todas) spreading ghee on the logs. Earlier on this day todas cut some hair of the deceased person for second or dry funeral but nowadays todas are not practicing the second funeral that's why they are not cutting the hair also. After the month of green funeral dry funeral takes place in which the hair of the dead person is wrapped in a putkuli (traditional toda shawl) placed in a hut first, then at the entrance gate of the pen mud of the pen thrown on 24 that remain and all the women started crying together. Earlier todas practiced sacrifices on the second funeral also, but now it's not practiced by the todas. Then an earthen pot has broken at the cremation spot. But presently todas are not practicing this dry funeral ceremony.

In the beautiful, scenic and green surfaced Nilgiris, the Todas are the peace-loving and nature worshipping tribe who are residing in a small 56 mounds of Nilgiri Hills. They are nature-loving tribe with simple lifestyles. Toda tribe is the most fascinating tribe on which people are doing research and studies due to their unique rituals and outfits also. But hardly any authors had focused on the Todas Cosmo- religious beliefs, so this study has focused an overview of Todas with their cosmological and religious beliefs.

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Ecological Essence of Indian Constitution and Democracy

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ABSTRACT

An administrative system necessarily works within the existing political framework of the country at a given time. Similarly government functions with in the total societal environment. The administration may vary with philosophy of men, of society and of the state. It will Constitutional doctrines embody legal framework for people and governance. They guide citizen's interaction and state intervention. They constitute legal and political ecology within which people and administration reside. Various social, cultural, and spiritual dimensions of environment also shape this interaction. With context to India these value based institutions have profound effect on behaviors of people as well as of administration. Hence, These two i.e. constitutional prescriptions and value based institutions must be in consonance to each other. In this context, this paper analyses interaction and behavior of these institutions.

Key words: Ecology, Constitution, Democracy, Religion

Exhibit distinctly in exclusive materialistic environment and exclusively different in and with people who believe in the existence of spiritual values. Environment is all within which constitution operates and constitute the actual reality. The legal and constitutional framework under which a public administration of a country operates does not mirror the total picture of the functioning of administration. The reality may differ. The construct of reality is multidimensional: legal, political, constitutional, economic, psychological, ethical. It even contains spiritual elements as well. The concord between reality forces with norms set by the constitution determines the quality of the government and administration in a polity. Concomitantly any discussion to review the constitution would be incomplete without understanding the consonance / dissonance of factors of these two in context to their with each other.

Contemporary Indian society is full of paradoxes. It is like a Pandora's box which has no solution for its poverty, unemployment, illiteracy etc besides plural society, high level of intolerance, stereotype mental makeup of the society, archaic family/ social structure etc. create a site of dismay. Indian society is known for its sociological diversity and plurality. Almost, all the religion of the world has been practiced here. So is the case with the

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community, caste, language. Its diversity is its real identity. But its diverse nature also has administrative behavioral reflections. These parameters or strata of diversity may not be complementary while receiving policy benefits. Sometimes they may go even hostile to each other. The exclusive heterogeneous nature of our society affects attitude of administration and administrator while implementation. An interesting study conducted by the ICSSR (S.N. Singh, 1999) few decades back on caste in decision making. The study concluded that 72.41 per cent of civil servants' attitudes affected by heterogeneity factor. The study further revealed the dominance of caste factor in administrative decision making. 63.79 per cent considered influence of caste on administrative decisions to some extent. Very few respondents (3.45) considered its no role in administrative processes. Many confessed that in reality caste factor helped them to solve their individual problems. The sociological diversity reflection on administration are quite pervasive and may have evasive effects. These reflections have serious implication in the administration itself and unhealthy repercussions on the society. Unfortunately constitutional set up is no guide for such nuances. Such reflections challenge the equanimity of the society. It paves the way for fragmentation and further fragmentation of the society. Controversies and paradoxes are inevitable as these emanate from the interaction of the society with the norms/ standards established by the constitution specifically and polity in general.

Constitution is the interface of the society with normative concerns. Spiritual, ethical, psychological, social, economic and political accordance of the normative concerns with the society are essential. If these two are not in harmony, it would lead to conflicts, power struggles and maladies in social and political systems. Similar is the picture of the contemporary India. The constitution translates ideals into goals and creates framework of machinery to realize those goals. Not only these goals but also the framework or structure created by the constitution should be with the ethics, psychology, economy, sociology and polity of the system. So indigenous forces must be the foundation and should be given the prime place in the constitution. Alien considerations could come in but be confined to filling the gaps. Unfortunately, this process become vice versa in context to Indian constitution. Our constitution is sum of many extraneous doctrines and provisions. Indigenous provisions are random and rare in our constitution. Resultantly, it widens the chasm between ideals and practices, goals and realities, targets and actual, and more over the government and the governed. To facilitate better understanding of the above point, it is proposed to analyze the present constitution and its silent features be it goals or objectives or machinery for public administration or political framework along with the psychology, ethics, economy and spirituality of the nation.

Since genesis India is the country of faiths and enigmas. Resultantly all its indigenous institutions are value based. Faith in specific values and ideals becomes standards and religiously following those standards is the distinct psychological characteristics of the Indian people. Examples in this regard I are religious faiths' Hindu....Muslim', family structures, caste structures. Value based institutions are predominant in our system and all the forces political, economic or social revolve around them. No wonder religion play key role in the system. For an Indian religion is not only a way to pray god but rather an art of living. Religion is so pervasive in life that it not only dominates higher mental faculties of thinking but also recognize our dress code, eating and food preferences, welcome and farewell pleasantries etc. precisely religion here is not only methods of praying to god but sets family norms, social norms, behavioral norms and spiritual norms. These values are amicably in accordance with the environment. It also discipline them for citizenship and statehood. It provides separate code of conduct for 'raja' (ruler) 'praja' (ruled). When the constitution interacts with the power process on the plane of reality, those notions of religion dominate the interaction process. And the value premises emanating from religion empower other forces. But ironically, constitution has given cold shoulder to religion by being secular

which is otherwise at the centre stage of the citizen's life. Definitely it does not suggest one must opt for theocracy. But secularism needs a relook and a broader framework of definition and application of the term. In the constitution the term secularism has been used rather abused in a defensive manner. Perhaps the framers of the constitution were presumptuous of negative valences of religion. Their fear reflects explicitly in the constitution and its subsequent explanations. In the words of Sri Radhakrishnathe Indian state will not identify with or to be controlled by any particular religion. We hold that no one religion should be given preferential status or unique distinction, that no one religion should be accorded spiritual privileges in national life and international relations.....(Bhamari) This view of national impartiality, of comprehension and forbearance as a prophetic role to play in national and international life. No group of citizens shall arrogate to itself rights, privileges which it denies to others. No person shall suffer any form of disability or discrimination because of his religion.(Bhamari) But all alike should be free to share to the fullest degree in the common life' No doubt no civilized democracy could bear discrimination on the grounds of religion, but considering secularism in this perspective is a fallacy. Secularism not in merely granting liberty of thought, expression, belief, faith and worship. It has more depth and deepness. It also means imbibing positive virtues of any religion and their application. Although, state has no religion of its own, but all the religion practiced by its people are hers. This is the right spirit of secularism. King Ashoka and Akbar's notion of secularism are exemplary in this context. They not only provided for freedom to practice any religion but also adopted the principles of substantive virtues in their governance. Although, king Ashoka was an acolyte of Buddhism in later part of his life. But his personal preferences and choices did not result in discrimination. They were not religion neutral but actually their best came in associating with religion. Their principles were highly valued in any democratic order. These two examples effectively sum up the novel orientation of the word secularism.

In our democratic structure the fallouts of constitutional detachment with religion are many. First, since there is no integration of people's faith and constitutional principles. Two, constitution and political culture could not stimulate trust among people. For them constitution is only a book of laws. It is merely an extension of the rules and regulations of the governance. Thus, constitution could not acquire the status of value based institution like religion. Second these i. e. religion and has entered in a war of supremacy. Belief in one means disbelief in another. Although issue of religion is not solely responsible for this relationship failure.

The constitution alien structure is another drawback. With this constitution, 'parliamentary democracy' came into effect. Public administrative machinery got carved out on the lines of British India, and western model of democracy. Since the beginning of the Indian history it was always ruled by a monarch a single ruler. When east India company and subsequently the crown in Britain got established here they needed a change in administration to overcome all oppositions. To ensure their permanent tenure here, first they crippled existing structures and machinery of administration and functions. Second they demolished old political and administrative structure/ system and. Finally, British transplanted the political and administrative systems which they were familiar with. This restructuring aimed at realizing the goals of the British in India. Thus the authority established under the new rule became coercive. After independence when India adopted the constitution based on British legacies, it put people in quandary. These were the institutions familiar by the British with which their experiences were not healthy. Ironically, these institutions carried inherent exploitative spirit that finally devastated people's faith. And democracy consequently has become spurious in our country.

Before considering an alternative to this arrangement it is important to conceive the idea of democracy and underlying philosophy. To initiate a discussion on this point, the fundamental question remains aboriginal 'what is democracy?' No definition of democracy is impeccable. Political, institutional approach to define it relates to the framework of polity, determining the form of government. The behavioral approach to democracy denotes, as best described by John Dewey 'A way of life in which men can freely and voluntarily exercise their intelligence'. This higher order concept of democracy implies the very essence of democracy. As a way of life it shows profound faith in the capacity of people as rational and human creatures meant to achieve good life by human beings. These two conceptions of democracy are complimentary and intertwined. Constitutional framework must provide framework to mobilize people's interest and activity and implement decisions to realize ultimate of human development. Conception of the state where human welfare is at its heart is essence of any democracy. Great Indian Sanskrit poet Kalidas in his work 'Raghuvansham' quotes 'It is only the welfare of the people that he (king Dilip) took taxes from them, just like the sun which takes the moisture from the earth only to return it in thousand fold to return it in the form of beneficent rain.' (Vishnu Bhagvan)

The spirit of administration adds a spiritual dimension to democracy. This dimension needs to be embedded while considering the alternatives. I would like to end with the words of Swami Vivekanand

'I want root and branch reforms.....I do not believe in reforms; I believe in growth.....why does not the nation move / First educate the nation ,create your legislative body and than laws will be forthcoming. First create the power , the sanction from which the law will spring. The kings are gone where is the new sanction, the new power of the people? You must go down to the basis of things; to the root of the matter. That is what I call radical reforms. Put the fire there and lit it burn upwards and make an Indian nation.'"(Swami Vivekanand)

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Cattle, Culture and Community: A Study on the Livestock Management in Himalayas

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ABSTRACT

Gaddis are famous for keeping livestock. Although the hill area offers potential for agro-economy, yet Gaddis have been shepherds for centuries adhering to the upkeep of the livestock as a necessary traditional alternative to agriculture. A cattle keeping is common. No Gaddi house will be observed without the possession of at least one or two species of domestic animals. Livestock comprises of cows, buffaloes, goats and sheep, ponies and horses. The terrain of the hills is not straight like that of the plains; it tends to be inclining with the slopes. Hence, the rainwater's flow down the hill tracks quickly. This has resulted into paucity of agricultural land.

Keywords: Gaddi, transhumance, cattle, herds, flocks

The role of British from 1850 until Independence in controlling and restricting grazing by Gaddi herds to foster natural regeneration of trees. The study assesses the establishment of Indian Forest Service, the tensions between peasants and shepherds which earlier arose out of the codification of British land tenure system and later again in the present time. (Tucker, 1986).

Bhasin, Veena (1996) has studied the various socio-cultural aspects of the three tribes Changpas of Ladakh, Gaddis of Himachal Pradesh & Bhutias of Sikkim. **Bhasin, Veena (1988)**

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has made an elaborate description of the various economic pursuits, importance of livestock, and the role of various members of the society in those activities. **Bhasin, Veena (1990)** highlights the interrelation between the health, settlement pattern, and lifestyle. **Verma (1996)** has reported the significant phase of transition of the colourful Himalayan tribe Gaddi. He has lucidly covered all the facets of their socio-cultural and economic life. The study is not only an enriching experience for the reader but also shall help the administrators in contributing to the assimilation of various tribal communities in national mainstream. **Bora (1997)** projects a direct relation between the processes of characteristic high rural-urban male dominated out-migration in the country especially the hill regions and the responsible geographical and human 'push factors'. **Hoon, Vineeta (1997)** considers the understanding of the livelihood-environment relationship to be indispensable and emphasizes the need for the study of different world communities with different strategies like transhumance and pastoralism as indigenous procedures for natural resource utilization and to combat untoward situations. **Chakravarty-Kaul, Minoti (1998)** maps the nature of customary usage on the pastoral commons. The study assesses the claims of the Gaddi shepherds to both horizontal & vertical access to pastoral resources in mountains and examines the relations between these institutions, human & natural ecology. **Seth (1998)** has made an attempt to analyse the interaction of various ecological factors in Alpine ecosystem. The study also establishes the need of scientific management of Alpine ecosystems with due reference to the grazing activities of the livestock owned by the transhumant or nomadic tribes dependent on the local environment.

Misri (2003) has discussed the considerable decline in the number of pastoral nomads with changing times. He has confined his study to Gaddi herders, who rear their livestock under a well-defined migratory system. He has discussed the considerable decline in the number of pastoral nomads with changing times.

THE PEOPLE: GADDI

Since times immemorial, there have been migrations into the Himalayas and within it. Some of these were motivated by the spiritual quest while others were propelled in pursuit of profit. However, this place remained in oblivion until 12th century, when the shepherding people from mainland settled here. It is believed that the immigrant Brahmins and Kshatriyas from the plains brought caste-division with them and introduced new forms of social organisation rooted in Hindu orthodoxy. These shepherds groups were called 'Gaddis'. These sheep and goat herders are one of the most important migratory tribes of the Himalayas.

These are a community predominantly distributed in the Northwestern and Northern most parts of the country. They are not nomads since they have homes and they own land which they or their family cultivates. They practice 'transhumance'. This culturally rich community live in the Himalayan mountain ranges concentrated in Bharmaur Tehsil (Sub Division) of Chamba, parts of Kangra (Dharamshala, Palampur, Baijnath dominantly), Mandi district in Himachal Pradesh and in parts of Jammu & Kashmir, northern states in India. Himachal is the abode of snow and the cultural heritage of the Gaddi community.

Origin:

Nothing authentic can be said about their origin. Some consider the Gaddis as descendants of Aryans who either settled directly in Brahmaur or migrated from the adjoining plains to this area. Ilbetson (1916) states that the Gaddi inhabit the snowy hill ranges that divide Chamba and Kangra and trace their origin from Punjab, particularly during the days of the 'Muhammedan' invasions which made them take refuge in these ranges. The name Gaddi is derived from the word 'Gadderan'-the local name for the hilly tracts of this part of Himachal Pradesh and from the term 'Gadariya' (A Hindi vernacular for Shepherd).

The generic term 'Gaddi' encompasses a congregation of different castes having variance in their socio-economic status. Although, all these castes are vaguely referred to as Gaddi living in the neighbouring areas of 'Gaddean', yet within the locality the term is particularly applied to Brahmin and Rajput castes. According to a popular belief, they originally lived in the plains of the united Punjab, and Sindh provinces and during the reign of Aurangzeb to save themselves from persecution and proselytization, migrated to Kashmir. They came to land locked region of Bharmaur (H.P.) and settled down there.

The Gaddis of Himachal Pradesh are short to medium stature people, with an average height of 162 cms. They predominantly have a long head and a narrow to medium nose and face. Usually they have a very fair complexion and black to brown hair and eye colour. Various dialects of Himachali language are used for inter-group communication. They speak 'pahari' which belongs to the Indian-Aryan family of language, but are conversant with the Punjabi language as well both the 'devnagri' and 'gurmukhi' scripts are used. Their ancient language is 'tankani' which was verbal while the present language is 'gadiali'- a member of pahari language family and is a mixture of Sanskrit, Punjabi, Hindi, Urdu, and English.

LIVESTOCK AND GADDI

Gaddis are famous for keeping livestock. Although the hill area offers potential for agro-economy, yet Gaddis have been shepherds for centuries adhering to the upkeep of the livestock as a necessary traditional alternative to agriculture. A cattle keeping is common. No Gaddi house will be observed without the possession of at least one or two species of domestic animals. Livestock comprises of cows, buffaloes, goats and sheep, ponies and horses. The terrain of the hills is not straight like that of the plains; it tends to be inclining with the slopes. Hence, the rainwater's flow down the hill tracks quickly. This has resulted into paucity of agricultural land. According to the analysis of the observations and census collected for the present study most of the Gaddi population in Bharmaur practices Animal Husbandry. It is one of the traditional and most important pursuits, which they follow because of the reasons mentioned below-

BETTER PRACTICABILITY

Animal Husbandry can be practiced throughout the year. It does not need to have subtle changes unlike agriculture, which greatly depends on various geo-physical factors. The livestock can be reared with just a slight change of place. During summer, when Gaddis live in Bharmaur the '*pohals*' take the cattle to the nearest pastures and bring them back after a few days. During winter, when Gaddis migrate, they carry their animals along with them through the pastures to the grassy areas in the plains.

MULTI PURPOSE UTILITY

The livestock provide various dairy products like milk, meat, and wool as well. These products are kept for self-consumption or personal use and sold in the market. This food supply is renewed every day and supports their diet even when the shepherds are in the pastures.

EMOTIONAL ATTACHMENTS

Gaddis consider these animals as a member of their family and take every care to protect them against any attack by wild animals or human agencies. The Gaddi housing pattern is prepared in such a manner that the ground floor provides ample space to house the livestock and store fodder for them. The animals altogether are known as 'dhan' i.e., wealth. They quote the maxim 'jaanwar sab accha...assi ganda,...' ('All animals are good... we are bad')

Following are the animals, which constitute the main Gaddi livestock:

I. Cow

Ii. Ox

Iii. Sheep

Iv. Goat

V. Mule/Pony

Other than these animals, dogs and Hens are also found in some households. Both men and women share the activity of rearing these animals without any distinction and inhibitions, they have acquired equal ability in this profession. They would not observe any special rites at the time of taming of these animals. The rope, which they use for tying the neck, is called '*joda*' and the piece of wood which pierce deep into the ground to tie the animal with '*joda*' is called '*khund*' in general while at some other place s '*khunpad*' (peg).

SIZE OF HERDS

Among Gaddis, the herds of these animals have three broad categories as follows:

S.No.	Size of the flock	No. of animals
1	Small	100
2	Medium	300 ¹⁴⁷ -500
3	Large	1000-1500

COMPOSITION OF THE FLOCK

Usually it is the sheep and the goats, which are owned in larger numbers. On an average, each herd has 60% sheep and 40% goats in it. These are looked after by two or three dogs (the number of dogs depends on the size of the flock). With very large flocks, Gaddis keep 4 to 5 pack ponies to carry diseased or injured animals or the newborns and as a large herd becomes difficult to manage, the shepherds find it difficult to collect and carry firewood. With the ponies, the exercise becomes easier. The composition of herding units depends on the area of migration, availability of labour, the size of flocks, and the degree of friendship and mutual trust.

COW

Cow is the most sacred animal and is referred to as 'mother'. Cows are looked upon with great respect and their killing and meat eating is forbidden. In Gaddi, language common nomenclature for a herd of cows, bullocks and their calves is '*goru dungar*'. A female calf is known as '*bachhoo*' as against '*bachhiya*' in Hindi language, while male calf is called '*bachhada*' (same as in Hindi language). The Gaddis prefer both '*Jarsi*' and '*Desi*' variety of cows. The former is big and gives more quantity of milk in comparison to the latter that is small but gives better quality of milk.

Another species known as '*Hosten*' and '*American*' cows are also being preferred in the area. The herders opine that these varieties are hornless and give more milk, hence, are rated as high yielding species of cow. The people in Bharmaur have nourished this feature of '*Hosten*' and '*American*' cows, as a superstition that hornless cows yield more milk and therefore, they consult the local vet.¹⁴⁸ and get the female calves vaccinated to turn them in to hornless cows. Buffaloes are not preferred amongst the Gaddi people. One common reason given by them is that the upkeep of the buffaloes is costlier than that of the cows, sheep, and goat. Buffaloes require more grass, fodder as their food, whereas the availability of the grass is scarce. Although as regards the quality of milk no species of animal can beat buffalo, yet the only drawback of buffalo rearing is that it needs more grass and this is why it is not a successful venture in the hills. Whereas maintenance of cows is easier, as they can move out to graze the grass down the hills wherever grass is available.

The Gaddi people use the services of '*chela*' (a worshipper / 'gods men' of lord Shiva) at the time when any cow desists from eating the grass owing to unknown reasons (this is known as '*opera*'). The '*chela*' picks up a '*daraati*' (sickle) and moves it around the neck of cow, chanting '*mantras*' (verses) and the same cow will start eating the grass after 5 days. The '*chela*' also treats the cows and oxen by burning the wood of '*Kangora*' (wild local variety) plant. He chants '*mantras*' and moves the smoking wood around the animal which according to the Gaddis become active once again. One or two cows can be found in every household, which is engaged in animal husbandry⁴⁹.

- a. Cow's urine '*gomootra*': It is considered sacred and a diseased or an ailing person is made to drink it so that it purifies the internal system.
- b. Cow dung: In the olden times when chemical fertilizers were not put to common use, cow dung was excellent manure. Even today, it is mixed with modern manures, as it is believed to reduce the harmful effects of the chemicals. Cow dung is used to smear the floor of the place of worship, as they believe that the place becomes ritually pure.
- c. Milk and milk products- The '*ghee*' (clarified butter') prepared from the Cows milk is used in various religious activities.
- d. At the times of paucity of money, the cows are sold.
- e. Possession of cow ensures a good social status.
- f. Cows are considered a form of property that a Gaddi owns. This is why it is an essential gift in their daughter's marriage.

SHEEP

The sheep are found in cold and dry parts of India. Their number decreases considerably in hot and humid areas. Generally, sheep are reared for two reasons-A) To produce good quality of wool. B) For meat.

According to a rough estimate provided by the local people, on an average one sheep can produce up to 1 to 1.5 Kg wool per year.

a) Northern Areas

These include Ludhiana, Amritsar in Punjab; Hissar, Ambala in Haryana; Garhwal, Aizawl, Nainital in Uttar Pradesh and Uttarakhand; Mountainous area of Jammu and Kashmir. Of these the most popular variety are from the Himalayan region viz.,

- i) *Gurajj*: Named after the place *Gurajj* in Kashmir. These are hornless and produce about 6 Kg to 9 Kg of white wool twice a year.
- ii) *Kama*: Found in *Karnat* of Kashmir.
- iii) *Bakherwal*: Reared in the lower areas of Kashmir, higher slopes of Pir Panjal range and Srinagar valley.
- iv) *Gaddi / Bhaddarwah*: Those, which are reared by Gaddi, people of Bharmaur. These are thus named after the name of their famous transhumant tribe Gaddi and the place like Bhaddarwah and Kishtwar tehsils of Jammu. The shepherds obtain good quality wool from these sheep varieties to prepare Shawls and blankets.
- v) *Sikkim*: These are reared in the eastern parts of Himalayas and Sikkim for good quality meat.

b) Western areas

The western dry areas of India are home to those varieties of sheep the hair of which are useful in preparing carpets. The sheep found in Rajasthan, Gujarat, and Madhya Pradesh can sustain the extreme heat and harsh winters and can survive on shorter grasses found in these areas. The main varieties are-

- i) *Bikaneri*: Found in drier areas of Rajasthan and Haryana and Ferozpur (Punjab). They produce up to 4 Kg to 8 Kg wool per sheep.
- ii) *Lolii*: Found in southern districts of Rajasthan and Amritsar (Punjab). They are reared mainly for their meat and milk as the wool from them is not very fine.
- iii) *Marwari*: Found in Jodhpur, Pali, Badmer regions of Rajasthan. They can produce about 1.5 Kg to 2.5 Kg wool per sheep.
- iv) *Kachhi*: These are found in Kutch and northern Gujarat. These are good to carry load and can produce good quality meat, milk and wool.

c) Southern areas

In these areas, mainly two types of sheep are reared.

- i) Deccan '*Dakhani*': These are found in Southern Maharashtra and Karnataka. These produce more meat (about 1.5 Kg per sheep) in comparison to wool.

ii) Nelori; These are found in Tamil Nadu and Karnataka. These are known to produce white, dark brown, yellow, and Reddish hair. Thus, they produce more wool than meat. The male sheep have horns while the female sheep are hornless.

The rearing and breeding of sheep along with Himalayan goats is a widely practiced and has been a most preferred mode of occupation among Gaddi people. Because of this age-old practice the local variety of sheep are called '*Gaddi sheep*'/'*Gaddi bhed*'.

They distinguish the male and female sheep in the following respects.

A female sheep has a small hairball below her neck, which is not found in case of a male sheep.

The head hair of a male sheep is never cut. They rear two types of sheep-

a) Desi (local variety): common varieties known to gaddis are-

1. *Chitta* 'bhed' (sheep)
2. *laal* 'bhed'
3. *chiltari* 'bhed'

- The hair of the desi sheep '*bhed*' is warmer than the farm variety.

b) Farm sheep:

1. *Sirmauri*
2. *Australian*
3. *Ambule*

The farm sheep have been introduced by the Government only about 15 to 20 years ago. However, the se varieties have gained good popularity in the area since they not only attain a good weight up to 80 Kg - 90 Kg in a year but also give greater quantity of hair than the Desi variety and these hair are even softer

GOAT

The goat is one of the most important species of livestock in India. It has a short generation interval, is easily adaptable to a wide range of climatic conditions. A good variety of goat breeds are found in India, the chief among them are ~ Himalayan goats; these are known for good quality of milk, hair and the capacity to carry load. These are reared all over the Himalayan region and most important are those bred in *Chamba goats*, *Gaddi goats* ('*Gaddi bakri*'), and *Kashmiri Goats*. Jamunapari: These are found in Uttar Pradesh and Western Rajasthan. Badwari: Found in Punjab, Haryana, Rajasthan, and Delhi.

Pgshmincn these are famous the world over for the excellent wool. They are found in the higher Himalayas and can produce up to 2.5Kg to 5.0 Kg wool every year. *Bangqlv*. These are the variety, which are reared and bred in Far East of India and in Gujarat (Surat), Maharashtra for milk, and meat.

During the study, it was found that the Gaddis prefer two types of goats-Q) Desi (local variety)

1. Jamunapari
2. Kachhi
3. Barbari

b) Farm goat

1. Ail chured
2. Chorai.

- The desi goats (local variety) produce 500 gm to 1 Kg milk while the farm variety produces up to 2Kg 500 Gm.

- Ail variety of the farm sheep give good quantity of milk, while the Chorai gives better meat and hide.

All, as is evident in the cattle population of various villages, do not rear goats. The villages like Sachuine, Dhadhautta Malkhautta, and Panjsei, which are one of the oldest in the area and more affluent than others, own a good sizeable population of goats next to that of sheep. While, the villages like Sawanpura, which has been settled quite recently, and Gotru, the

inhabitants of which are not well-off exhibit very low population of goats in the area. With an average of one or two goats in the village. Importance of Sheep and Goats

Both sheep and goats have high economic and social importance in Gaddi society.

I. Whenever there is an economic loss due to crop failure or poor agricultural produce, some of these animals are sold to other families willing to buy them in exchange of money.

II. Higher the number of livestock in a household the higher is the social status of the family.

III. The milk and milk products from the cattle are used at various stages of a marriage ceremony. Right from greeting the boy's maternal uncle to 'ganesha puja' followed by the ceremony when the groom is dressed as a 'jogi' (representing Lord Shiva). When the marriage procession reaches the brides place, groom's feet are washed with 'ghee' (clarified butter). The 'mundap' (a square area with decorated canopy, where the sacred wedding mantras and other ceremonies are performed) is decorated with milk, curd, 'gomootra', cow dung.

Religious importance

A) Sheep, Cow, and Goats form the basis of Gaddi religious activities.

a) They are sacrificed during 'autra puja'. i.e. ancestral worship. The animal being sacrificed is known as '*bhagat*'.

b) At the time of the marriage of the eldest boy of a family, a lamb '*bhedoo*' is sacrificed.

c) Sheep or goat is sacrificed at the time of childbirth.

i. When a wish comes true, white or black '*bhedoo*' (young one of sheep) is sacrificed on Saturday.

ii. A part of the meat of the sacrificed animal is distributed among all village men. The foot of the animal is given to the '*Pujaris*' (priest) in addition to the meat.

d) To appease those spirits that are considered to have brought economic crisis in a family a goat and a lamb is sacrificed.

B) Magic

Those animals which are not a part of sacrifices i.e. the meat of which is not eaten among Gaddis are used in magical activities. Mostly for this purpose, certain animal parts are used like- flesh, skin, hair, bone etc. They believe that there were some people in the village who were magicians ('*Daaga*' male ; '*Dayan*' -female/ Witch in English). Though no body claimed to be a witness to the entire procedure yet, it was a most common belief in the villages that these magicians perform magical rites in the cremation grounds or near the rivers. They bring some specific herbs for this purpose and chant 'mantras' (verses) while mixing the meat of various animals including rat and cat and owl's eye which is then mixed with powdered bone. They finally mix this preparation in a food item and give it to the person to eat whom they want to harm. Although this account seems to be an exaggeration, yet at various places, animal parts were found which were explained to the researcher as a work of some magician, which must not therefore be crossed or else the spell for some other person shall fall on the one who first crosses it.

C) Purification

A woman who has recently delivered a baby is said to be impure for a few days hence, after four to five days few of her hair are washed with 'gomootra' (cow's urine). This potion is then given to all the villagers, who drink it. At the time of death, the Gaddis believe that the place where the dead man's body was kept becomes impure hence after the kinsmen take it for cremation ceremony the place is purified after smearing cow dung mixed with water and clay. Later the kinsmen who take the body to the cremation ground are made to wash their hand and feet and outside the house they touch the dried dung cakes before entering their houses (it is believed that since cow is sacred animal hence by touching its dung all sorts of pollution are got rid off).

Agriculture and cattle

The Ox is kept only for the agricultural purpose. The fields are so narrow and fragmented that tractor cannot be used to plough the plots hence; the oxen are employed during the

ploughing, sowing operations. The oxen are yoked with the plough around the field to sow deep furrows, in which seeds are sprayed. Threshing is called 'davriV', according to them separates the 'daana' (grain) and the 'bhu' 'puhaal' (chaff). They spread the crop in the courtyard and make the ox to crush it with his feet.

Transportation

During the early days of settlement till the time modern means of transport entered the area, Gaddis had been traveling on foot. They themselves carried the load and other items of use from lower areas to their place (upto the areas where there were no roads and means to carry them). Later during the decade of 1950-60, Gaddis also became familiar with the use of horse and ponies. They started keeping these animals under the influence of Gujjars (another pastoral tribe in the region). What emerged as the need of those times for carrying the items of their use has now assumed the form of a livelihood for the Gaddis, as these ponies etc. are used for carrying the tourists up to the Mani Mahesh Lake and other higher places where even today jeep able roads could not be constructed.

Economic Importance

Milk and its products are most important. However, the products commonly derived from Sheep and Goats are milk, meat, wool, hides, (ropes, bags), manure, fuel.

1- Milk-

The family consumes half of the milk produced, while the rest is sold. Since the villages have dispersed location where no agency is appointed to make the selling and purchase of milk convenient in this area, not much people come to buy milk from them. Hence, the Gaddi children while going to school carry milk in covered vessels, sell the milk in nearby villages, and bring the money back home.

Sale of goat milk is considered unethical by Gaddis; it is never sold it may be given to acquaintance. The only use of this milk is consumption by the graziers and making cheese for their own use. Milk is not consumed fresh, but immediately heated.

Other Dairy Products-

There is a large potential in dairy products. Sour Milk is a staple food. It is churned to make *h\ \tit&(makldthari?)* and butter milk *Qchhachh'*). The butter either may be eaten with Chapatti etc. or may be turned into 'ghee' (clarified butter). In the local diet curd, cheese are mainly produced at home and marketed by women when prepared in surplus.

2. Meal-

In H.P., herders sell 40% of their sheep and 70% of their goats every year. In Bharmaur, traders go up to the alpine areas to buy the animals. Sheep fetch minimum Rs. 650- Rs.1000 per animal. While, goats may fetch minimum Rs. 750/850- Rs. 1500 per animal. Gaddis although sacrifice their sheep and goats for various religious rituals, yet a cow is never sacrificed even if there is no animal to offer. However, these sacrifices are made for one another i.e. the owner of a herd may sell his animal but never will he kill it by himself for having fed it like a child. A fellow villager does this whenever a family makes a sacrifice. The meat is provided to all those who are a part of any sacrifice. Gaddis relish the taste of goat meat. As regards the lamb meat, mostly the 'dharmiyani' sheep (the sheep neither too young nor too old) is preferred. They may eat the meat of 'a sheep which died of any disease other than Anthrax, 'galaghontu'(diphtheria), tuberculosis.

Quite recently, they have started selling the meat of their animals by preparing pickles and other edible dishes at food joints in the market. Following are the items prepared from the sheep and goat meat -

'Khatta' (variety of pickle): Prepared with the sheep meat mixed with dried mango powder. ('Khatai') and Ground almond ('badaam'). 'Chickenpaneer': Roasted chicken is mixed with Cheese. 'Chicken madra': Chicken meat is mixed with Curd. Other than these 'Chicken biryani', 'Chilly Chicken', 'Kadi Chicken', 'Aaloo Chicken', 'Matar chicken' etc are preferred.

- Their trade with Gujjars is also dominated by the animal products as they take milk, curd, butter, cheese and clarified butter 'ghee' in exchange of animal meat.

- They treat their guests by serving delicious food items made of animal meat.

Sale of Animals for Meat Production;

Twice a year the animals are sold. This has been shown in the following table.

' Period	Venue	Animal	Body weight	Age	Rate (in Rs.)
		1 st Sale:			
March	Plains/ lower hills	Young ones of goat	9-12 kg.	6 month	700
		Young ones of ; sheep.	9- 12 Kg.	6 month	250-350
		2 nd Sale:			
September	Pastures	Adult sheep	20-22 Kg		750-1000
		Adult goats	20-22Kg.		1000-1500

The Gaddis get their animal population registered twice with the forest Department while moving towards plains and while coming back to Bharmaur. About one ram is required for every five ewes to ensure good fertility in the flock. A single he-goat provides greater vigour as far as fertility of the goat -herd is concerned.

There are said to be three natural rutting seasons for the sheep and goats during summers it is the month of May- June while the next two come later in the year during August - September and October. Hence, the ewes give birth to the younger ones after about a period of 5 months during November, January-February and March respectively. These newborns are kept away from the main herd. The mother stock is maintained to the age of 8 years after which they can be sold during the upward and downward movements of the Gaddis.

To maintain a balance between the population of animals that can be supported by a Gaddi household and the holding capacity of the pastures back home in Bharmaur or of the grassy areas in the plains they sell the new born during the month of March before setting out for their home in Bharmaur. The younger ones, which are left, grow up by the period of second sale in September and fetch better money, which can be used during their stay in lower areas.

3. Manure and Fuel-

Dung manure is an important contribution to the rural economy. About half of the dung produced by these animals is used as manure while the rest as domestic fuel. Cattle dung is mixed with green colour and is smeared over the floor. Earlier cow dung was used as a cleanser for the skin.

In some of the areas lower in the valley, cow dung is used as a good mosquito repellent even today. Other than this, small balls of cow dung mixed with coal powder are dried and burned during winters to keep the rooms warm as it lasts for long. With the increasing use of chemical fertilizers, the importance of sheep manure as an agricultural input has declined. However, now since the price of petrol and those of raw materials to produce fertilizers are soaring it has increased the value of dung.

4- Hides-

Sometimes when the sheep and goats die in the local pastures or are killed in an accident they are sold to the butchers in the area and in return, they obtain the skin of these animals, which is then used to prepare bags commonly known as '*khaladi*', This bag is used to carry water, flour, and eatables while they are enroute to pastures. The bag is prepared after removing the hide. Some salt is sprinkled over the fresh hide, which is then dried under the sun. For removing the hair from the skin, they use wooden sticks. This activity is called '*maadana*' in Gaddi language.

Gaddi shepherds and their fiends and relatives remove the hide of the sheep and goat for the purpose of leather bags etc. However, that of the dead cows, oxen, horses etc are removed only by the 'Chamaar' (usually referred to as cobbler) or the dead animals are sold to the people who come from nearby places but never does a Gaddi remove the hide of the cattle.

Process:

They use a long sharp edged knife to remove the hide. Once the skin is removed, it is wrapped within a warm sheet usually woolen or that of jute. Two to three days hence, the hair are scraped off the surface of the hide. The hide is now washed and dried for the next three days. Now the hide, which is treated as leather is stitched to prepare various items like 'Khaldf', is ready to hold liquid and grains or even flour. Goat hide is most popular to be used as 'naadf', which is used to make-

1. The long strip 'nakef' put within the nostrils of the ox while the beast is employed on the field.

2. A wooden horizontal bar 'jungada' is tied around the shoulder of the oxen with the help of 'naadi'.

The 'chamaar' / 'mochi' (cobbler) put the animal hide in a deep wooden bowl 'naad' and stir it after mixing limestone. The hide is then crushed under a stone piece and is removed after it has been sun dried for two - three days following the cleansing of animal hair. They prepare a bag not ready for use but is hammed. Leaves of 'dhau' (a local plant) and bark from 'kanaar' (another local variety of tree) is crushed and stuffed within this bag, which is now filled with water, which is allowed to seep out for a few days. After this process is done, the hamming stitch is cut and the leather is ready to be shaped as boot, sandals etc.

Though Gaddis do not use items prepared from the hide of cow and ox yet when the dead animals are sold to the butcher etc (as was very reluctantly accepted by middle-aged shepherd) this leather called 'goka' is sold at as high as Rs.100 per Kg since it is the best.

The leather of buffalo hide is known as 'maja' and the leather from horse and mule skin cost Rs. 80 -85 per Kg. Now days a new variety called 'Krone' (from ox leather) is being prepared, it is sold at about Rs.20- 22 per meter. The religious belief that cow is a sacred animal gives them a strong disinclination to kill this animal but the economic value of the animal overweighs the superstitious consideration about skinning the animal themselves. Hence, they have found a via-media so that they get it done by Mower castes' like 'mochis' (cobblers).

5. Ropes:

- 'Thultch' \ 'Preudi' & 'Karath' - Are long ropes prepared out of sheep and goat hair. 'Preudi' & 'Karath' are tied around the wooden churner 'maand' to churn milk.

- 'Dora' - This is a 12 meter long rope which is prepared out of the wool of the black sheep, which they call as 'dora' \ it is mostly used in tying around the wedding gowns for bride known as Tuanchadi' and for the dress of 'chela' and also for the 'chota' put by Gaddi men during Gaddi dances.

6. Wool-

Sheep and goat contribute to the family through wool production as well. The Gaddis shorn the sheep about twice or thrice each year during the months of January (this is less often and usually done in the plains), April to May (when they are back to Bharmaur and perform this activity at the Bharmani temple) and finally during September (this is either done in pastures or at Bharmani temple usually while coming from pastures).

- The wool to be used for **preparation of blankets and shawls** is taken back home while the rest is sold to the traders. These traders are either the local intermediaries who are well acquainted with the Gaddi movement or those from Pathankot and Punjab who approach the shepherds directly. They remain in contact throughout the year and the most important value assigned to the sheep and goats is due to their thick hair. The sheep hair are mainly used to prepare wool, while the goat hair are used to prepare ropes- 'Thultch' and 'joda' they also make a mat called 'Thobi'. These ropes are best used to pull heavy items and to tie these

around the load on the back of the other animals. Time and place¹ to buy the wool/ hair is prefixed at mutual consent. The highest wool/hair is produced during September as the sheep have ample fodder and grass to eat after the first showers. The period spent in plains where the Gaddis have lesser food to provide to the animals hence lesser wool is produced as can be found in the following chart.

Preparation of Wool:

The shearing of the sheep is done usually in the open ground in front of the Bharmani temple near their village pastures, it provides a big space being closer to the pastures. The shearers are trained people and they generally keep the hair of every two sheep out of a herd of 20 sheep as their remuneration.

After shearing, the hair are washed and dried in sun. Earlier they used '*kanghi*' (comb) to clean the hair manually nowadays they employ a machine for the purpose. The machine is run by a private owner who charges up to Rs. 8 -Rs.10 per Kg or Rs. 3 per sheep (whichever mode is agreed upon by mutual consent). The clean hair are spun on the wheel 'charkha' to make the strong woollen thread out of them.

Since only black and white sheep are reared in this area, hence the blankets are prepared either in single colour or those in mixed shades of black and white. After the woollen thread has been prepared, it is further arranged in two varieties-

a) 'Taana': two threads of the wheel spun woollen thread are again organized on another instrument '*oonsaan*'. After further spinning, a better and stronger quality of thread is ready and is used to prepare blankets and other such materials, which are put to use in harsh conditions.

b) '*Buna*': this is that variety of woollen thread, which is not spun on the '*oonsaan*' hence is not as strong as '*taana*' and is used to prepare woollen items for indoor use.

After the two types of thread are ready according to the material to be prepared these are once again turned on '*arnotoo*¹⁵¹ before finally placing them on the weaving machine to prepare 'pattu', shawl, blankets, sheets (woolen) etc. (The women mostly perform the activities associated with the cleansing, spinning of the hair / thread).

Of these items, '*pattu*' is the one, which is a thick long sheet with multiple utility. Hence, '*pattu*' is dipped for a few hours say 2 to 3 in a huge wooden basin full of hot water. This cloth is then crushed under the feet for three days for two hours (this activity is known as '*maadhncf*'). After three days, '*pattu*' is washed in clean water and is sun dried. They believe that due to '*maadhna*' / crushing under the feet, the fabric of the cloth becomes stronger and it reduces up to 20 % of its original size.

Once this is done, the creases, which develop due to crushing, are removed by placing the cloth between two parts of a circular wooden piece. One end of the cloth is fixed on the edge of the wooden piece and the loose end is drawn around the rest in a circular manner such that each layer overlaps the one underlying, when the other end is reached the latter is sewn and the '*pattu*' is left in this state fixed on the circular wooden piece for three days, by the end of which the creases are gone. Now the '*pattu*' is ready to be sewn in to various forms as Jacket, coat, 'chola', '*gadnC* and cap. The '*pattu*' used to prepare 'chola' is washed with utmost care. One used in '*gadru*' is made of the best of very strong thread. It is tightly tied around the Urn such that after it is ready for use the water does not percolate through it.

WEAVING-

Weavers do not exist as a separate caste in the Gaddi society. The Gaddi people are fond of keeping Sheep and goats for selling the wool taken out from them. Now-a-days, many of them have adopted weaving of the blankets. As an exclusive earning activity for sustaining their livelihood, since they already rear sheep and the wool as raw-material for the blankets is readily available with them without any cost. The various important parts of the weaving machine have been narrated as under-

1. '*Charkha*' - A common hand machine for weaving the yarn out of the cotton or wool. This was found in every Gaddi house, salient parts of Charkha are- '*Thugroo*': opposite to the side

of *Chakh/wheel* there is a wooden platform on which a small wooden rod 'thugroo' having a pointed needle 'Suaa' is fixed on it 'MakadV: A handle or 'Hatthd' with which the movement of the front round wheel i.e. Chakh is managed by moving it around, 'Dad': A longitudinal wooden base to give support to 'Chakh' and other parts. 'Maal': The thread part of the yarn being processed in Charkha.

2. The weaving Machine- Urn:

This is the weaving machine made on a wooden frame with two parts connected with each other through a complex network of thread i.e. 'soot'. This gave a look of an internal part of a factory. The various parts are-

2.1 'Broom': A network of numerous threads in a vertical alignment on a thin rod under the urn to receive the continuous supply of the threads from 'greekhanoon' (wheel like pulleys fixed with the help of a rod hanging over the urn).

2.2 'Khanghee': Another wooden rod kept close to the weaver and is flexible enough to manage free movement of the threads back and forth.

2.3 'Belan': A flattened wooden bar kept horizontally close to the level of weaver's hands and it wraps over it slowly the woven threads in the form of 'chaadar'. It receives the threads from the front line and the blanket is thus made in the process.

2.4 A pair of black plastic pipes is used to inter cross the threads to make it appear as interwoven mat.

2.5 'Khadawaan': A wooden frame under the urn flexible to move up and down with the help of the weaver's feet and it gives movement of threads to the urn.

2.6 'Tanaithee': A spinning top of the wood upon which the woolen thread of the black sheep is wrapped and this is inserted with in the pipe.

3. Khaddi: Weaving machine

S.No.	Khaddi	Urn
1.	In order to keep the supply of the yarn continuous a wooden boat shaped 'shuttle' is used. This shuttle has a middle part in which the yarn spun from charkha wrapped over a rod is inserted or maintaining the yarn supply continuous.	This function of shuttle is done through the black plastic pipes in the urn to keep the supply of the yarn continuous.
	'Khanghee' in a khaddi has iron wires or strings.	Khanghee in the urn has strong yarn threads in place of iron wires for the purpose.
3.	In khaddi on right hand side of the weaver there is an end of the rod with rotate able hole. This is rotated after of blanket a little forward and at the same time unwoven part of the yarn is also supplied.	Woven part of the blanket is slowly wrapped over the 'belan' in the urn and unwoven part of the yarn is supplied simultaneously.

Pre-Weaving process-

Preparation of the yarn involves an interesting process from the cutting of the hair of the sheep to the converting of them into the wool-yarn. Generally at the temple of Goddess Bharmani the sheep and goat are sheared off their hair. Traditionally the hair were cut with the help of a long iron scissor known as 'Kaat', however, now-a-days, the Gaddi people use electric machines for quick, efficient and neat shearing. All the filth of the cut hair is cleaned by hand and then with a pair of 'Kanghee', (a hair-cleaning tool with pointed pin like bristles of the steel) which were used for cleaning the hair in opposite directions to each other., the clean hair of the sheep are then spun through 'charkha' to make 'soot' or yarn in the first

form. The clean wool was wrapped around "*Thema*\ it looked like a wind-mill without fan, but with two intersecting wooden rods making a cross), the wooden rods fixed on it were rotated in a rhythmic way to prepare round packs of wool known as '*Ratanu*' at this stage. '*Ratanu*' is rotated around '*Arnotee*' to make long packs of wool known as '*Kukadu*'.¹⁵⁴ which is then wrapped on a spinning top which is called '*oonsaan*' by moving it in a round way. This process makes the weak yarn strong and ready to be spun on the '*charkha*'. It is then ready to be arranged on urn and after it is designed by the weaver it is removed and is known as '*Chaadar*' which is cut and stitched into appropriate size, followed by the process of washing and cleaning with '*goon*'.¹⁵⁵ in the '*kund*'.¹⁵⁶ with the help of characteristic movement by the feet of the individual. Thereafter the stitched '*chaadar*' becomes a little swollen after being sun dried and is known as '*pattoo*', the cloth out of which coats and other woolen accessories like blankets etc are tailored as per individual's liking. A single blanket known as '*garad*' might take a year to be woven. An old '*garadu*'.¹⁵⁷ can be stuffed with worn out clothes and cotton to form '*khind*' (mattress).

Post weaving:

Earlier the shepherds used to carry a few blankets with them when they left for pastures and other plainer areas to sell them to local peasants and other markets there, a few were left at home which were purchased by traders who came to the village. Gradually, as the area has now become popular as a tourist spot, the gaddi people also sell their shawls; blankets etc to the tourists and earn a good sum. Mostly, an unwoven '*pattoo*' is sold at Rs. 1000, while a single blanket may cost up to Rs 500 to Rs 800 while the rate for a double blanket is Rs 1000 to Rs 1200. Table 57 shows the approximate quantity of wool produced in each shearing.

QUANTITY OF WOOL

S.no	Shearing Period	(Approx.) Wool reduced (in gm)/sheep
1	January	500
2	April-May	800
3	September	1500

Now-a-days, the rate of the wool have been fixed by the government at around Rs. 6.75/ Kg. to Rs. 8/Kg. (for the highest variety of wool). Black wool is most in demand but following sheep improvement programs, most is available in white or shades of white. Black sheep fetches highest amount of wool and hence like their wool are very costly.

INCOME AND EXPENDITURE FROM SHEEP/GOATS-

S.no	Herd capacity	No. of; animals sold	Rate animals (in Rs.)	Average annual income
1	100	50	500	25,000
2	350	100	500	50,000
3	1000	300	500	1,50,000

Gaddis do not sell the entire flock about 50% to 60% is retained. With them and the rates may vary depending upon the demand of wool in market and the colour and texture of wool. However, an important factor in lesser export availability of this wool is that in such a herding system the wool thread is short, coarse, and dirty as compared to the international standards of wool production.

Security: As is known that Gaddis are shepherds hence, most of the time they are in the pastures and grazing grounds with their sheep and goats. Throughout this duration, there is constant threat to the shepherd and his herd from the wild beasts as Bear, Leopard, and Fox etc. for this reason since the beginning of this profession Gaddis acknowledge the importance of Dogs as their best companions while in the pastures. The huge furry Dogs in the area at the first sight give the impression of a wolf. They not only raise an alarm at the sight of a wild animal but also when it is needed fight with them. In addition to this, they are very watchful and as each herd is guarded by two -three dogs, the latter do not allow the sheep etc to go astray. They even save them from falling in the moats and valleys. In the villages, also they protect the cattle and their owners' family from the wild animals who frequent the villages usually at night.

HENS:

Rapid increase in the population of hens and improved poultry is seen probably again due to market because of growing tourist industry. Hence, Hens etc. were not found here originally but they have brought from Kangra, Chamba, and Pathankot. They are reared for meat and eggs and the meat is sold from Rs. 60/kg. - Rs.120/kg.

OXEN:

They are used to plough the field. Earlier when the thresher was not in vogue, these beasts of burden were used to separate wheat from chaff.

MULES AND PONIES:

Mostly the horses and mules are bred in the dry grassy plains and plateaus of India. Mostly they are found in Maharashtra, Uttar Pradesh, Punjab, Haryana, and Madhya Pradesh. The best breeds¹⁵⁸ of horses are reported to be '*Kathiawari*' in Saurashtra;

'*Marwarf*' in Western Rajasthan; '*bhutiyc*' in Himachal Pradesh and West Bengal; '*ManipurV*' in Manipur; '*Spiti*' in Kullu and Kangra regions of Himachal Pradesh. The best among these are the '*Kathiawari*' and the '*Marwari*'. The '*bhutiyd*' and '*Manipuri*' are best put to use as beast of burden.

The most common types of horses found in this area are-

- a) 'Guth' : those with big broad foot
- b) Desi

The mules '*khachhar*' found are of three types-

- a) Balochi
- b) Desi
- c) Sunni

These are owned by only a few people (as has been mentioned in the subsidiary activities elsewhere) as pack animals. They are an important means of transport and are very successful in Bharmaur terrain. They are also a great help for tourists as well.

CATTLE FEED AND FODDER:

The most common feed for the livestock are as follows-

- I. Hay from the grass on the fields.
- II. Stalks of maize called '*gullo*', wheat chaff, cabbage, and carrot is used to feed 'dunger' (collective name for cows and bulls).
- III. Pulp of fruits like apples, khubani.
- IV. The vegetables and chapatti left out of the day's preparation.
- V. To ensure good digestion and enough milk production salt is provided every 3months to maintain the salt balance in the animal's body.
- VI. Rice straw, maize stover and 'bund' grass are the main roughages for cattle while sheep and goat are fed tree leaves besides being grazed. Concentrate mixtures made from rice bran, maize grain are fed to producing animals.
- VII. The big basin like brass utensil called '*baatV*' and a wooden or cemented feed structure called 'chat' is used for purveying food to the cattle especially cows and oxen. '*Ghada*' - This is a special structure here the Gaddi people store the fodder

prepared after rriixing the hay, straw, leaves of the apple tree, chaff of the wheat and remnant part of maize.

The common Gaddi name for a group of sheep and goats is 'ghan'. During the summer residence in Bharmaur shepherds take the sheep and goat out in a herd for letting them graze the grass in the morning after milking them and in the afternoon, they come back with them. Sheep and goats remain dispersed while grazing the grass, but shepherds call them back from different hill tracks at one place by blowing a whistling sound from their mouth and this act is called '*hind dena*' in Gaddi language. Flute is a valuable possession of a Gaddi shepherd. As per the Gaddi tradition all shepherds have their own flutes. They play excellent tunes in the pastures.

The Gaddi people revealed one strange fact that first times the sheep and goats neither accept their off springs, nor easily yield milk for them. The newborns are hence fed on milk from other goat /sheep. When the sheep or goats die and the number is beyond their consumption capacity in the pasture, the dead animals are thrown down the hill in the valley, or are buried under the ground. Less often are they sold to people who come from the leather factories, because the facilities of skinning the animals are not available every time in the pastures.

The present species of Gaddi sheep is good but produces less meat and wool. Hence, experiments are being conducted to prepare a new hybrid variety of sheep. A separate budget is prepared every year. According to the officials in the Animal Husbandry Department, for the year 2005-2006 about Rs. 8, 00,000 are allocated for sheep and wool extension programme.

Thus by way of discussing the relationship of Gaddi with their livestock we have found that livestock are a good source of income for shepherds and farmers of all categories. Livestock-rearing is a potential source of employment during pastoral activities. They have well trained dogs to protect them and provide security. Goats, sheep and cows have socio-economic value as they provide a way of life, social prestige, source of livelihood and a means to appease the deities.

Gaddi along with their livestock population are well-acclimatized to give each other strength to fight back and sustain themselves in harsh terrain of Himachal specially Bharmaur. The government of Himachal Pradesh has made several efforts to support animal husbandry in the region owing to the environmental concerns and the forest policies, however, the government is not inclined towards shepherding hence is coming up with ideas to provide such incentives that they reduce their size of livestock and participate in activities like growing apples and floriculture which support sedentarized farming providing great economic gains. Further reduction of livestock shall affect the tradition of pastoralism.

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Report

International conference on

“Interplay of Economics, Politics and Society on Development of a Nation” - ICIEPS-2017

Foundation for Evidence-based Development in India (FEDI) contributed to organized this ambitious event in collaboration with Indian Economic Association and Niche Institute of Management and Technology, Thimphu (Bhutan) on 1st – 2nd July 2017. The conference was organized at The Royal Thimphu College, Bhutan. The event brought together some 200 multi-disciplinary researchers, faculty and key internationally important speakers.



The arrangement of the inaugural dais

The conference aimed at broadening the scope of interlinking activities pertaining to multi-disciplinary theories and practices to the context of a developing Nationa and especially Bhutan. It was an effort to enrich the research themes and outreach by importing and imparting viable ideas from different disciplines.



Release of the book

Since FEDI has sound understanding of the advantage of research evidence in the development of policy and practices, it aims to bring a positive change to our developing society by strengthening policy implementation and to achieve accurate outcomes of interventions. In this conference, FEDI provided its experts as resource persons and further support to help achieve the objectives of this event. It was also expected that the event shall pave way to broadened considerations for the research problems in holistic development and other disciplines of socio-economic research.



Dr. D. S. Faruque speaking at the inaugural session



Prof. V. K. Malhotra speaking at the valedictory session

Amongst the key speakers were Mr. Thakur Singh Powdyel, Former Minister of Education, Government of Bhutan, Prof. V. K. Malhotra, Member Secretary, Indian Council for Social Science Research, Prof. P.K. Chaubey, President, Indian Economic Association, Dr. Bimla Roy, Director Niche Institute of Management and Technology, Mr. Troy Sadovsky from Australia, Dr. Szymon Zyliniski from Sweden, Prof. D. K. Madaan from University of Patiala, Dr. Amy Putman (expert of gender studies and media from Oxford and Research Fellow at FEDI), and Dr. D. S. Faruquie (Executive Director of OXEVIN and Secretary, FEDI).



Mr. Thakur Singh Powdyel speaking at the valedictory

The event was inaugurated by Prof. P.K. Chaubey, Dr. Bimla Roy and Dr. D. S. Faruquie. Dr. Faruquie, in his inaugural keynote, spoke about the viability and feasibility of

evidence-based methods in developing countries with a special reference to Bhutan's economy and culture. He also threw light on the utility of the method to frame new policies and to guide running public programs. A book edited by Prof. Kanwaljit Kaur Marwaha of Patiala university and Dr. Shad Ahmad Khan of Geddu College of Management Studies Bhutan, titled "Development of Nations: An interplay of Economics, Politics and Society" was also released during the inaugural session.



Ms. Amy Putman of OXEVIN & FEDI giving away the memento to a speaker



Dr. D. S. Faruque of OXEVIN & FEDI giving away memento to Prof. Kanwaljit Kaur Marwaha

Mr. Thakur Singh Powdyel and Prof. V. K. Malhotra graced the valedictory session. Prof. Malhotra delivered his valedictory keynote speech that threw light on the viability of research in the areas of interplay of different disciplines to help build a nation. Mr. Thakur

Singh Powdyel was very articulated, eloquent and pleasant while speaking about the Gross National Happiness index of Bhutan, the educational policies of this country and socio-economic methods involved in the process of the growth of this country.



FEDI officials and volunteers with local volunteers.

The speakers were honored with awards and mementos during the inaugural session and the certificates were handed to every participants at the valedictory. The awards and mementos were arranged jointly by OXEVIN (Oxford, UK) and FEDI (India)



The conference photoshoot in the scenic campus of Royal Thimphu College

Finally, the success of the event was due in no small part to the engagement of the local organizing committee, which comprised Dr. Shad Ahmad Khan and his team of volunteers who were wearing colorful ethnic Bhutanese dress and represented the Geddu college of Management Studies. Jamyang Choden Dorjee successfully compeered the whole program along with her vibrant team.

The guests of the conference were treated with sumptuous Bhutanese ethnic food at the sunny lawns of the Royal Thimphu College.

DAUD SALIM FARUQUIE

Obituary

of

Professor (Mrs.) Hamida Ahmad
 Department of Psychology
 Aligarh Muslim University, India

This is to put down with a heavy heart that Professor (Mrs.) Hamida Ahmad passed away on 20th July 2017. Professor Hamida Ahmad was one of the most influential academics in the areas of cognitive Psychology and research methods, a mentor to many fine scholars, and an efficient administrator. She was an extraordinary scholar, who promoted and believed in the distinctiveness of Psychological research, the need for specific theories and models in research and application of the research outcomes into public domains. She made considerable research and teaching contributions that her students can build on.

Professor Hamida Ahmad articulated and grasped the relationships between inimitable resources and actions, processes and value creation in a way that was meaningful to the academic community and beyond. In the capacity of Director, She nurtured and helped to grow the Centre for Distance Education at the Aligarh Muslim University and mobilized various categories of resources to the best use of students. Her understanding of professionalism and resource development enabled young academicians to hone up their professional skills and to improve their efficacy in knowledge processing and service creation. She executed such services being Director of Academic Staff College at Aligarh Muslim University. Her insight has also had extensive impact on large research projects and institution development in India. She helped India's top academic leadership to improve best practices in the Indian Universities



*She had the
 ability to laugh
 and make a
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 something
 more—a
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while as a member of the finance committee of University Grants Commission. Her critical skills were used best to ensure educational quality in the country when She worked as one of the members of NAAC peer team that assessed and rated the academic institutions across the country.

As one of the celebrated students of the historic Abdullah Girls' College, She was elected as the President of the Students' Union of the college. She took inspiration from the mission statement of the college and became a harbinger of women's education and empowerment. She chose to join academia and in this role she served as an exceptional role model for female faculty.

Professor Hamida was a true and professional academic. She was an exemplary scholar based on her thoroughness and search for in-depth knowledge within the topic area where she had her interests. Her work was always characterized by high quality. This enabled people around her—her students and colleagues—to understand what it takes to do high-level research. At the same time, she was always willing and generous to share her insights and ideas. She was curious and wanted to develop knowledge rather than protect it.

Professor Hamida had a strong desire to help develop future researchers and was passionate about her students. Both students and colleagues have had the privilege of her ability to mentor and inspire. She spent a lot of time identifying good PhD candidates to convince them to be innovative—within the area of academia. She was also a very engaged PhD supervisor.

While her extraordinary qualities as a scholar stood out—Professor Hamida was first and foremost a great person. She valued people around her and had the ability to set rank and seniority aside to engage in light but informative conversations in any given situation. She saw the qualities of the person behind an idea. She also had the ability to laugh and make a tough academic discussion into something more—a conversation among friends.

We are proud to have had the opportunity to work with and know Professor Hamida Ahmad and miss her greatly.

DAUD SALIM FARUQUIE