

# Mind *And* Society

*An International Peer Reviewed Research Journal  
in Humanities and Social Sciences*

Volume : 10  
Issues : III & IV  
Sep. & Dec. 2021

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**Manav Navnirman Sansthan**

60-Kanchanbag Rajnandgaon (C.G.)

*Published by*

**Manav Navnirman Sansthan**

60-Kanchanbag Rajnandgaon (C.G.) Pin - 491441 INDIA

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Manv Navnirman Sannsthan

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**Price :** Rs. 600.00

**Membership :**

For One Year      1000.00

For Two Year      1500.00

For Life time      5000.00

**Composed & Printed by :**

Chhattisgarh Offset, Rajnandgaon (C.G.)

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*Editorial.....*

## **Mind and society: Miles to Go**

Mind and society have very good and close relations. Society has a certain rules, regulations and customs that are followed by the people by using their mind. Each and every act of the individual can be considered as the cross product of human mind and social environment. Some times people want to do something but their mind stops to do so because such actions may go reverse in the way of social norms, conduct core and environmental demands. So far as the matter of society is concerned it exists to serve individuals- not the other way around. Man is a social animal and always lives in the group/groups directly or indirectly. Therefore, it will be surely fair to say that the relationship between man and society is ultimately one of the profound of all the quests of social philosophy. It oscillates between cognitive and social values. But many times, it has also been observed that social forces enable/ motivates a person for act or response. It is also true because humans are value based.

One can never develop his personality, culture, language and inner deep by living outside the society. He is a social animal by nature because his nature makes him so. Sociability or sense of belongingness is his basic needs. Society fulfills the needs and the relationship between man and society which is bilateral in nature.

It is also a fact that man lives in the society for his cognitive, intellectual and personality development and recognition. In other words, we can say that man and society both are interrelated.

Keeping these views in consideration we are happy to present, “Mind and Society” for your perusal consideration and appreciation. Mind and Society is a journal which thinks, explores and discusses the relationship and interaction of human mind and social environment. It is a platform where scholars of all fields of social sciences are warmly welcome to submit their deliberations. The journal welcomes the article reviews and empirical papers till date that offer new vision and insight to the researchers of the pertaining fields. We are quite sure that we will regard the senior Excellencies of various fields and feel grateful to incorporate their papers in our forthcoming issues. Also, we will appreciate the budding talents and try our best to promote them. This is a long journey that can only be possible by the cooperation of you all. We are sure that you all will encourage us.

**MILES TO GO BEFORE WE SLEEP, MILES TO GO BEFORE WE SLEEP**

*Regards*  
**Aradhana Shukla**  
**Anubhuti Dubey**  
**Basant Kumar Sonber**

## Personal Characteristics of Bihari Migrants: Some Impressions

Received: 01 November 2021

Accepted :01 December 2021

\* Jyoti Verma

### Abstract

*This paper is part of a major project on 'Bihari migrants in Mumbai' whose sample comprised 152 male Bihari migrants and 155 local people of Mumbai. The paper's observations are based on the migrants' 'self-ratings' of 36 personal attributes associated with the Bihari people and, the ratings of these attributes by the local people of Mumbai. The rating scores were factor analysed for studying the factors of the migrants' 'self-perception,' local people's 'perception,' and the common factors of the migrants' overall personal characteristics extracted through a combined sample score. The results showed that the migrants mainly 'self-categorized' themselves significantly highly on positive attributes, while the local people on the negative ones. Despite whose ratings were used, the factor analysis results suggested two prominent strands in the Bihari people's overall image. One was positive and seemingly represented the core feature of the Bihari people. It described the migrants as, simple, modest and sensitive towards others' feelings. The other aspect was negative and described the migrants as law breakers and quarrelsome in case of the migrant's own self-perception, dishonest and law breakers according to the combined sample factor and law breakers and untrustworthy as regards to the Marathi people's perception. Some anomalies were also observed in the configuration of the factors extracted from the rating scores of different instances (i.e., migrants' self-ratings, local people's perception-based ratings, and the combined sample scores).*

**Keywords:** Bihari migrants, Bihari people, Migrants, Migration destination Mumbai, Self-perception, Inter-group perception

### The Backdrop of the Present Study

The present paper is taken out from a major Indian Council of Social Sciences Research (ICSSR) sponsored project (2008-2010, Submitted to ICSSR in December, 2011) on 'Bihari migrants in Mumbai.' The project was an empirical investigation pursued with the help of both qualitative and quantitative methods having three major objectives.

1. Understanding the socially constructed image of the Bihari migrants by the local people of Mumbai.
2. Addressing the basic 'collective identity' issues of the Bihari migrants.
3. Examining the reasons behind the deteriorating relationship between the Bihari migrants and the local people of Mumbai.

### The Contextual Frame for the Present Paper

The shared basis of 'self-categorization' (or self-perception) made by a regional group on certain personal attributes that are associated with the people of that region (in this case migrants from Bihar), offers ground for identifying those people as members of a separate collective group. In that sense, this paper touches upon the 'collective identity' issue of the Bihari migrants partially. It is contended that the relationship

between the migrants arriving from an economically disadvantaged state of India, and the local people of an economically viable metropolitan, is likely to be determined by the impression that the migrants leave on the local people, or the way the receiving city's people identify the migrants on the basis of their prominent characteristics. Therefore, it was interesting to examine the configurations of the 'empirically derived factors' based on the Bihari migrants' self-ratings on certain personal characteristics and also, the factors extracted from the local people's ratings of the attributes associated with this regional group. Additionally, it made sense to look for the common factors extracted from the combined sample rating scores for getting a clue to the collective identity of that regional group.

The main project had another interest too, namely, in the formation of 'collective identity' inspired by the concept of social identity. For that part, the researcher looked for some shared activities and common experiences of the migrants that were likely to facilitate the 'formation of a collective,' the apparent 'indicators' of collective identity, and the special 'feelings' rooted in the migrants' new found collective identity. However, this second perspective is not being touched upon here.

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## Introduction

Bihar is known for the phenomenon of outmigration. According to the Census of India, 2011 (Tables D2 and D3), 74,53,803 persons out-migrated from the state of Bihar. Referring to the same source, Sarkar (2019) observes that between 1951 and 1961, about 4 percent of Bihar's population migrated which became 2 percent between the years 1971 and 1981. However, in 1981, the total number of migrants almost doubled to 2.5 million (Sharma, 1997). In late nineties, the migrants from Uttar Pradesh and Bihar kept migrating in large proportion vis-à-vis the non-migrants and migrants from within the state of Maharashtra (Singh, 2005). Apparently, during the inter-censal period between 2001 and 2011, around 9.3 million Bihari people had migrated (Census of India, 2011).

As the projects' data was collected in Mumbai, it needs mentioning that migration has played a major role in the economic and social transformation of Mumbai and in changing its demographic profile. During the initial independence years (1951-61), migrants constituted about 50 per cent of the total growth of the population of the metropolitan which remained high (Singh, 2007). Reporting the migration trend in Mumbai in fifty years, Singh (2007) informs that after the highest (37.4%) percentage of migrants born within the state of Maharashtra, followed by the migrant groups from Uttar Pradesh (24.3%) and Gujarat (9.6%), the percentage for the Bihari migrants remained within 4 percent. According to one estimate, there are around 2.5 million Bihari migrants working in Mumbai, and nearly half that number in other cities of Maharashtra (Malekar, 2008). Referring to the Census of India, 2011 (Table D2), 5,68,667 persons migrated from Bihar to Maharashtra. Unfortunately, it is very difficult to find the exact number of Bihari migrants in Mumbai in the records of the Government of Bihar or any update in this context.

It has been reported that migrants who have lived in Mumbai for long, are seen dominating pharmaceuticals sectors, security services, real estate and dairy in various capacities. However, in the early 1980s, more migrants were found in production related occupations like industrial and manufacturing sectors in comparison to the non-migrants seen more in professional, technical, administrative and clerical occupations in Mumbai. On the other hand, in the wholesale, community social services and construction sectors, the migrants and the non-migrants were represented equally (Singh, 2005). Bihari migrant are heavily concentrated in the districts

that offer lively economic hubs with industries and in Micro, Small and Medium Enterprise sectors (Sarkar, 2019).

As labourers, Bihari migrants toil hard building bridges, flyovers, dams, and shopping malls in different states of India. Additionally, they also work as security guards, rickshaw pullers and coolies, etc. (Sharma, 2005). It appears that over the last two decades the occupational pattern for both migrants and non-migrants has remained largely the same (Singh, 2005). Living invariably in modest to very poor living conditions, the Bihari migrants often face threat from local political parties and sometimes by the local people. Deshingkar and Atker (2009) and Deshingkar et al. (2006) are important references for all the important concerns related to the migrants.

## Method

**Sample (The Bihari Migrants):** The sample comprised 152 Bihari migrants apparently compelled to leave their homes due to lesser job opportunities and poverty back at their native place. Seventy eight percent of them were married and their average age was around 33.09 years (S.D. = 11). The migrants were not well educated as 75.7 % of them have had only some school level education, while 24.3 % of them had not been to school. Among the educated, the highest percentage was that of the Secondary School Certificate holders (i.e., 23.7%). Further, 18.4% had studied up to Middle school level, 13.2%, up to High School level, and 11.8% up to the Primary School level. The exceptions were 13 out of the 152 migrants who were Graduates (11) or Post Graduates (2). The migrants came from the 27 districts from all over Bihar and were often helped by their Mumbai based relatives, fellow villagers and acquaintances in reaching Mumbai.

Earning money was the foremost reason behind the poor villagers to migrate and their average monthly income was close to Rs. 6,600. In this regard, the least that a migrant could earn was about Rupees 2,500 in a month. However, on the higher side, the monthly income of a few could reach anywhere between Rs. 15,000 to Rs. 20,000. The most frequently endorsed monthly earning slots were Rs. 4,000 to Rs. 6,000, Rs. 6,000 to Rs 8,000 and Rs. 8,000 to Rs. 10,000 respectively. However, barring a few exceptions, the annual household income of the majority of the migrants was between Rs. 51,000 to Rs. 75,000

More than 50% of the migrants of the sample were working as menial laborers followed by another 27% who were auto rickshaw and taxi drivers. Furthermore,

## 12/ Personal Characteristics of Bihari Migrants: Some Impressions

6% to 3% of the migrants were engaged in multifarious jobs like shop keeping, clerical job or skilled occupations.

Occupation wise income distribution suggested that on the average, a wage earners income was less than Rs. 6,000 per month, while the auto and taxi drivers could earn a little more but their earnings varied much. Migrants who could get clerical and skill-based jobs managed to earn something between Rs. 7,000 to Rs. 8,000 in a month. It appeared that the present sample of the Bihari migrants was the closest case of interstate migration to large urban centers for casual laboring in the non-farm sectors.

The remittance money sent home, amounted to anything between Rs. 1,000 to Rs 4,000 and was mainly utilized for food, medical facilities, children's education, paying loans, children's marriage, farming, repairing or constructing a house. In Mumbai however, the migrants lived in modest conditions of slums and chawls and without their families.

**Sample of the Local People of Mumbai:** The sample comprised 155 local Marathi speaking respondents whose average age was 33.18 years (S.D.= 12.06 years). The Mumbai respondents were better educated and none of them was illiterate. The group comprised of Graduates and Post Graduates (18.7% and 13.5% respectively) with only 6.5 to 7% of the people having education up till Primary level or less. Notably, out of the 155, 25.2% were educated up to the Secondary School Certificate (SSC) level and though, 29% did not have the degree, but were educated close to that level.

Majority (99.3%) of the local people lived in flats, chawls and slums. It appeared that the local respondents came from at least 26 localities of Mumbai. The maximum number of them came from Chembur (24), Pinjarpol (21), Ghatkopar (17) and Vashi Nagar (16). Others in declining numbers came from Deonar (8), Govandi (7), Tilak Nagar (5), Mulund (4), Parel, Sion, Guru, T.B. Marg (3 in each case), Kunjur Marg, Arohi, Kurla, Vadala, and Komathe (2 from each place). Only 1 respondent each, came from the following 10 localities: Powai, Shival, Mankhurd, Santacruz, Dadar, UlhasNagar, Vikroli, Khar, Gaikvad and Chuuna Bhatti.

The Mumbai people's occupations included: Private service (23.3%), Government service (10.53%), B.M.C. workers (9.87%), social workers and NGOs (7.24%), labors (7.24), businessman (6.58%), drivers (5.26%), guards (5.26%), singer (.66%) and research associates (.66%). The sample also had 12.5% of stu-

dents, 5.92% of unemployed and 5.26% of retired people. Notably, with 35 non-earning students in the sample, the information on the monthly earning slots was based on the 120 valid cases only. In nut shell,

though the monthly average income of a local person appeared a little less than 10,000 Rupees, the range for the extreme cases was fairly wide (i.e., between Rs. 1,500 a month to Rs. 70,000 per month). A large S.D. was self-explanatory in this case.

### **Purpose of the Present Paper**

1. Investigating how the Bihari migrants' 'self-categorized' or rated themselves on some positive and negative 'personal qualities' associated with the Bihari people. Additionally, examining the local people's 'perception' (or evaluation) of the migrants on the same personal attributes.

2. Comparing the ratings of the Bihari migrants' 'self-perception' and the local people's 'perception' of the migrant group.

3. Extracting factors based on the migrants' self-ratings scores for understanding the aspects of their 'self-perception.'

4. Extracting factors from the local people's ratings of the Bihari migrants' personal attributes and studying the dimensions of their 'perception' of the migrant group.

5. Studying the configuration of the combined sample factors extracted through the combined rating scores of the two groups, and probing the significant differences between the factors' Mean scores.

### **Measures**

**The List of Personal Attributes of the Bihari Migrants-** Thirty-six negative and positive personal characteristics of the Bihari people were developed by a group of senior psychologists of Bihar with research and university teaching experience. The respondents were asked to rate the items of the list on 5 points scale according to the following instructions: "Given below is a list of good and bad qualities and certain things about the nature of the Bihari people. We request you to go through each of them carefully and tell us as to what extent they 'correctly' or 'incorrectly' feature the Bihari people. If you think that a particular attribute is 'Totally correct' for the Biharis, then choose to say 5, if 'Correct,' then choose to say 4, if you 'Cannot decide,' than say 3, if you consider it to be 'Wrong' then say 2 and if you think it is 'Totally wrong' then choose 1." The personal characteristics included in the list were:

<ol style="list-style-type: none"> <li>1. Simple</li> <li>2. Modest, Polite</li> <li>3. Are greedy</li> <li>4. Respect others' feelings</li> <li>5. Low in self esteem</li> <li>6. Do not follow law &amp; rules</li> <li>7. Say something do something else</li> <li>8. Want to become rich anyhow</li> <li>9. Understand others' pain and pleasure</li> <li>10. Are tolerant</li> <li>11. Are dishonest</li> <li>12. Are reliable /trustworthy</li> <li>13. Blame others for their mistakes</li> <li>14. Do not work without pressure</li> <li>15. Spill dirt in public places Do not care for their looks and clothes</li> <li>16. Help people from their own village, district</li> <li>17. Work together in harmony</li> </ol>	<ol style="list-style-type: none"> <li>18. Do parvi</li> <li>19. Bribe for getting work done</li> <li>20. Harm others' work</li> <li>21. Are lazy</li> <li>22. Are cunning</li> <li>23. Are cheaters/fraud</li> <li>24. Are fearless</li> <li>25. Are of criminal nature</li> <li>26. Are loud mouth</li> <li>27. Are cowards</li> <li>28. Are courageous</li> <li>29. Are sweet talkers</li> <li>30. Are rustic/ <i>ganwar</i></li> <li>31. Are quarrelsome</li> <li>32. Are <i>jugadi</i></li> <li>33. Are helpful to all</li> <li>34. Are selfish</li> <li>35. Are contended</li> </ol>
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**Procedure:** A senior professor from the Tata Institute of Social Sciences (TISS), Mumbai, was requested to coordinate in the study. This colleague helped the author, also the Project Director, in hiring trained research assistants and later in the analysis of the quantitative results. The research assistants approached the prospective respondents for data collection from different localities of Mumbai after taking an appointment. Another practice was to reach particular vicinity were people gathered at their free time and look for respondents who agreed to cooperate in data collection. Often the new respondents were contacted with the help of those who had already helped in data collection. Data collection was not easy, the author Project Director had to depend on the help from TISS as she was located in Patna and could not have shifted to Mumbai for the entire long period of data collection due to logistical constraints. Nevertheless, she travelled and stayed in Mumbai as much as feasible and monitored the procedure.

The personal attribute of the list was verbally mentioned in Hindi and the meaning of the 5 scale points was explained. The research assistants were available throughout the data collection period and in case the migrants needed help in responding, the chosen rating scores were noted down for them. Similarly, the local

people were requested to rate the migrants on the list of attributes with the help of the scale points. However, they were asked to tell whether the given characteristics were 'correct' or 'incorrect' for the migrants according to their perception.

**Analysis**

The analysis included computing Mean and standard deviation for the rating scores given against the personal attributes by the respective groups. Furthermore, t test was applied for examining the Mean differences between the ratings of the two groups. The analysis also included factor analyzing the rating scores of both the groups separately for understanding the configuration of the extracted dimensions of self-perception of the Bihari migrants in one case, and the Marathi respondents' perception of the Bihari migrants on the other. Factor analysis was done by the Principle Axis method and rotated by the Varimax till the Eigen value reached 1 or more than 1. At this instance, items that loaded .35 or more on a particular factor were considered to be part of that factor. Finally, the combined rating scores of the two groups were factor analyzed with the purpose of arriving at the common dimensions of the personal characteristics of the Bihari migrants and getting an idea of their overall character.

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### Results

**Table 1: Ratings of the Personal Attributes of the Bihari Migrants and the t Test**

Personal Attributes	State	t	Mean	S.D	Sig.
Simple	Bihari	8.07	3.72	0.99	0.00
	Maharastrian		2.53	1.53	
Modest , Polite	Bihari	5.75	3.18	0.95	0.00
	Maharastrian		2.37	1.46	
Are greedy	Bihari	-12.19	2.19	1.23	0.00
	Maharastrian		3.87	1.19	
Care for others' feelings	Bihari	5.90	3.29	1.14	0.00
	Maharastrian		2.39	1.51	
Low self esteem	Bihari	3.91	2.55	1.01	0.00
	Maharastrian		2.01	1.40	
Do not obey law	Bihari	-5.62	2.66	1.10	0.00
	Maharastrian		3.46	1.37	
Say something do something	Bihari	-4.13	2.86	1.39	0.00
	Maharastrian		3.52	1.42	
Want to become rich	Bihari	-4.77	3.39	1.20	0.00
	Maharastrian		4.03	1.14	
Understand other's pain	Bihari	5.71	3.36	0.94	0.00
	Maharastrian		2.53	1.52	
Are tolerant	Bihari	2.41	3.25	1.00	0.02
	Maharastrian		2.89	1.55	
Are dishonest	Bihari	-6.23	2.59	0.94	0.00
	Maharastrian		3.42	1.35	
Trustworthy	Bihari	6.49	3.03	0.88	0.00
	Maharastrian		2.18	1.37	
Blame others	Bihari	-3.20	2.87	1.16	0.00
	Maharastrian		3.34	1.42	
Do not work without pressure	Bihari	-3.93	2.75	1.09	0.00
	Maharastrian		3.34	1.51	
Mess up public places	Bihari	-5.15	2.85	2.77	0.00
	Maharastrian		4.09	1.14	
Do not care about their clothes	Bihari	-13.63	2.47	1.10	0.00
	Maharastrian		4.08	0.96	
Help their own caste people	Bihari	-11.32	3.18	1.15	0.00
	Maharastrian		4.50	0.87	
Work collectively	Bihari	1.47	3.47	1.07	<b>0.14 n.s.</b>
	Maharastrian		3.24	1.60	
Do pairvi	Bihari	3.17	2.97	1.03	0.00
	Maharastrian		2.52	1.39	
Bribe for work	Bihari	-6.15	2.72	1.09	0.00
	Maharastrian		3.57	1.32	
Harm other's work	Bihari	-6.14	2.51	1.11	0.00
	Maharastrian		3.43	1.48	
Are lazy	Bihari	5.42	2.58	1.15	0.00
	Maharastrian		1.80	1.37	
Are cunning	Bihari	-4.90	3.14	1.18	0.00
	Maharastrian		3.76	1.04	
Are fraud	Bihari	-5.97	2.66	1.09	0.00
	Maharastrian		3.52	1.41	

Cont...

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Personal Attributes	State	t	Mean	S.D	Sig.
Are unafraid	Bihari	-2.31	3.09	1.07	0.02
	Maharastrian		3.43	1.43	
Are of criminal nature	Bihari	-2.20	2.52	1.20	0.03
	Maharastrian		2.88	1.66	
Are loud mouth	Bihari	-6.15	2.61	1.16	0.00
	Maharastrian		3.52	1.40	
Are timid and afraid	Bihari	5.90	2.97	1.21	0.00
	Maharastrian		2.06	1.46	
Are courageous	Bihari	0.02	3.48	0.88	<b>0.98n.s.</b>
	Maharastrian		3.48	1.32	
Are sweet talkers	Bihari	-8.70	3.25	1.02	0.00
	Maharastrian		4.14	0.75	
Are rustic	Bihari	-7.21	2.68	1.06	0.00
	Maharastrian		3.69	1.37	
Are quarrelsome	Bihari	-5.24	2.72	1.08	0.00
	Maharastrian		3.50	1.51	
Are jugadi	Bihari	-4.63	2.99	1.09	0.00
	Maharastrian		3.63	1.31	
Helpful	Bihari	9.03	3.47	0.89	0.00
	Maharastrian		2.21	1.47	
Selfish	Bihari	-7.40	2.83	0.99	0.00
	Maharastrian		3.76	1.16	
Satisfied people	Bihari	2.60	3.02	1.21	0.01
	Maharastrian		2.60	1.53	

It appeared that the migrants self-rated themselves significantly highly than the Mumbai people on certain positive attributes that presented them *as simple, modest, respectful towards others feelings, people who understood others' pain and pleasure, tolerant, trustworthy, helpful, and satisfied people*. At the same time, they self-categorized themselves significantly highly on the negative attributes like, *lazy, low on self-esteem, timid and people who do pairvi for work to be done too*.

Looking at the observations from the Marathi peoples' perspective, the Bihari migrants were perceived as significantly more *greedy and dishonest people, who did not obey law, said something did something else, wanted to become rich anyhow, those who blamed others for their own fault, didn't work without pressure, messed up public places, didn't care about their dress, bribed for work to be done, harmed others' work, helped people from their own community, were cunning, fraud, rustic, quarrelsome, jugadi, and selfish people*. Nevertheless, the local people considered the migrants to be *unafraid and sweet talkers*.

It may be briefly mentioned that the negative impressions about the migrants had emerged prominently in the qualitative data (not being dealt in this paper but shall be referred sparsely for an overall impression). In their qualitative deliberations, the local people had described Bihari people as *involved in anti-social activities, clever, selfish, dirty and people who have nothing good about them*. However, one occasionally noticed contradictions, depending on the method of data collection. For instance, responses against one of the open-ended questions described Bihari people as *hard working*, but the migrants' self-categorized themselves as *lazy*. Similarly, the local people held the 'opinion,' that Biharis were 'dominant' people, whereas, the migrants self-rated themselves as *timid and afraid*.

Talking of the difference between the ratings of the two groups, it was quite obvious that Biharis were rated negatively by the local people and the only time that they did not differ with the migrants' self-perception was when they rated Biharis as 'courageous' and people who 'worked collectively.' Apparently, the *t* results supported the qualitative observations that the migrants

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were generally perceived in a negative light by the present sample of the local people of Mumbai.

### The Factor Analysis Results

A major concern of the study was to understand the shared basis of self-categorization of the Bihari migrants and getting an idea of the dimensions of their self-image as a regional group or collective. For this purpose, the migrants' self-rating scores were factor

analyzed. Factor Analysis helped extract 12 factors including two high loading single items. However, three of the factors were not considered for further analysis due to their low reliability coefficients. Table 2. contains the migrants' self-perception factors, their names, Mean scores, standard deviations, variance explained and the reliability coefficients. The description of the factors is presented in the end of table 2.

**Table 2: Factor Name, Mean, Standard Deviation, Variance Explained and Reliability Coefficients for the Bihari Migrants' Self Perception Factors**

#### Factor 1

**Modest and sensitive towards others' feelings**  
Mean=3.37(.62), Variance explained 9.13%,  $r = .66$

Item no.	Items	Loadings
1	Simple .	.75
2	Modest polite	.68
4	Respect others' feelings	.65
29	Courageous	.56
34	Are helpful	.50
17	Help people of their own community	.47
9	Understand others' pain and pleasure	.37

#### Factor. 2

**Law violators and quarrelsome**  
Mean=3.32 (.79), Variance explained: 7.21%,  $r = .58$

6	Do not follow rules	.73
32	Are quarrelsome	.69
24	Are frauds	.57

#### Factor 3

**Unreliable and unsure about self**  
Mean=3.19(.80), Variance explained: 6.38%,  $r = .61$

7	Say something do something else	.82
5	Have low self esteem	.60
13	Blame others for their fault	.52
1.	Do pairvi	.38
8	Want to become rich any how	.34

#### Factor 4

**Confirmatory**  
Mean=3.50(.82), Variance explained: 5.98%,  $r = .61$

16	Don't care for their dress	.79
21	Harm others work	.55
18	Work collectively	.53

#### Factor 5

**Timid and rustic**

Mean=3.20(.85), Variance explained: 5.69%,  $r = .66$

28	Are timid and afraid	.77
30	Are sweet talkers	-.70
31	Are rustic 'ganwar'	.49

#### Factor 6

**Loud and lazy**

Mean= 3.38 (.81), Variance explained: 5.25%,  $r = .53$

27	Loud mouth	.73
23	Clever	.59
22	Are lazy	.39

#### Factor 7

**Practical**

Mean=3.34(.83), Variance explained: 4.98 %,  $r = .49$

20	Give bribe for work to be done	.79
11	Dishonest	.51

#### Factor 8

**Trustworthy**

Mean = 3.03 (.88), Variance explained : 4.38%

12	Trustworthy	.87
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#### Factor 9

**Low civic sense**

Mean = 3.75 (2.77), Variance explained : 3.75%

15	Dirty public places	.74
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**Factor 1: Modest, and Sensitive towards Others' Feelings**

The highest percentage (9.13%) of total variance explaining factor with 7 highly loading items, was named, 'Modest and Sensitive towards Others' Feelings.' The factor configured out of attributes like: simple (loading .75), modest (loading .68), respect others' feelings (loading .65), courageous (loading .56), helpful (loading .50), help people of their own community (loading .47) and understand others' pain and pleasure (loading .37). The factor gave the impression that Biharis perceived themselves as simple and modest people who cared for others' feelings, tried to be helpful and particularly helpful to the people of their own community.

Understandably, the naïve villagers who arrived in Mumbai looking for livelihood, must often depend on the support and empathy of the people from their own region for surviving and settling down in an unfamiliar big city. This becomes possible if Biharis as a collective remained sensitive towards the feelings and needs of each other. The factor made sense also because Biharis care for social relationships. The factor had a fairly large Mean score (3.37) and a small standard deviation (.63) suggesting little variability in the ratings of the respondents. The factor's Chronbach's Alpha score was .66.

**Factor 2: Law Violators and Quarrelsome**

The second factor named, 'Law Violators and Quarrelsome' explained 7.12% of the common variance and had only 3 high loading items. This dimension of the Bihari people's self-perception did not seem to complement the earlier one namely, 'Modest, and Sensitive towards Others' Feelings.' Perhaps, the factor hinted towards the proclivities for 'wrong doing' aspect of the Bihari migrants' self-image probably envisioned handy for surviving in an adverse, hardly sympathetic and unfamiliar environment. The factor described Biharis as people who did not obey rules and law (loading .73), were quarrelsome (loading .69) and even fraud (loading .57). The Mean score for the factor was 3.32 and the standard deviation .79. The factor did not show a very high reliability coefficient (Chronbach's Alpha = .58) but was retained due to its configuration.

**Factor 3: Unreliable and Unsure about their Self**

With 5 items, the third factor presented migrants as 'Unreliable and Unsure about their Self.' The constituent attributes of the factor were, say something do something else (loading .82), have low self-esteem (loading .60) and blame others for their fault (loading .52). The remaining two items, seemed to support the factor's

configuration by featuring Biharis as people who involved themselves in doing pairvi for work to be done (loading .38) and wanting to become rich any how (loading .34). Seemingly, both the items were indirect indicators of being 'Unsure about Oneself.' The first feature i.e., doing pairvi for work to be done suggested a general lack of self-confidence while the second (want to become rich anyhow), lack of trust in one's capabilities to acquire money. On the whole, the factor seemed to give an impression that Biharis saw themselves as 'unreliable' for others, and 'unsure about themselves.' This factor explained 6.38% of the common variance, had a Mean score of 3.19 and a standard deviation of .80. The factor had modest reliability (Chronbach's Alpha = .61).

**Factor 4: Confirmatory**

Factor 4 was named 'Confirmatory' with two negative loading items and one positive. The factor suggested that Bihari people saw an aspect of 'conformist' in their personal character. Accordingly, the highest loading items were, don't care for their dress (loading -.79), harm others work (loading -.55) and work collectively (loading .53). The cluster of items in this case, seemed to submit that Bihari migrants cared about how they dressed up, did not like to harm others' work, and worked collectively indicating their preference for 'confirmatory' behavior. The factor had the highest Mean score (3.50) among all the factors and a standard deviation value of .82. The reliability coefficient for the factor was moderate (Chronbach's Alpha = .61) and the factor explained 5.98% of the common variance.

**Factor 5: Timid and Rustic**

Factor 5 named 'Timid and Rustic,' pronounced Biharis as timid and afraid (loading =.77), not sweet talkers (-.70) and rustic (.49). The self-description made sense when examined in the background that the migrants were village based, rustic people from a poor state who were not particularly welcome at their migration destination. Apparently, timid and afraid people in the new environment, perhaps cannot remain sweet talkers forever in all the situations. The factor explained 5.69% of the common variance and had a reasonably acceptable reliability coefficient (Chronbach's Alpha = .66). The Mean score and the standard deviation for the factor were 3.20 and .85 respectively.

**Factor 6: Loud and Lazy**

The sixth factor was labeled 'Loud and Lazy' and explained 5.25% of the common variance. The constituting items of the factor described Bihari migrants as

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loud mouth (loading .73), clever (loading.59), and lazy (loading.51). The factor did not seem to present a meaningful configuration initially, but perhaps was a pointer towards a façade suggesting the migrants were loud mouth and clever on the one hand, but lazy on the other. The Mean score of the factor was fairly high (3.38) and the standard deviation for the factor was .81. The reliability index of the factor was not very high (Cronbach's Alpha =.53).

### **Factor7: Practical**

Factor 7 was named 'Practical.' The two highly loading items of the factors were, give bribe for work to be done (loading .79) and dishonest (loading.51). The configuration made some sense as some would say that these are the features of a 'practical' person. The factor was retained despite its modest reliability coefficient (i.e., Chronbach's Alpha) of .49. The Mean score of the factor was fairly high (3.34) and it had a standard deviation of .83. The factor explained 4.98% of the common variance.

### **Factor 8: Trustworthy**

Factors 8 was a single item high loading factor which read 'Trustworthy' (loading .87). The Mean score and standard deviation for the factor were 3.03 and .88 respectively. The factor explained 4.38% of the common variance.

### **Factor 9: Low Civic Sense**

Factors 9too was a single item factor which read dirty public places (loading .74) and was given the name 'Low Civic sense'. The Mean score for the factor was 3.75 and it showed an unusually high standard deviation (2.77). The factor explained 3.75% of the common variance suggesting that there was much unex-

plained error variance behind the factor.

### **Self-Perception Profile of the Bihari Migrants**

On account of the extracted factors, the foremost aspect of the Bihari migrants' self-categorization suggested that they perceived themselves as 'modest people who were sensitive towards others' feelings.' Moreover, the migrants also saw themselves as 'timid' and 'rustic' people who were 'trustworthy' and believed in 'confirmatory' behavior. However, the other dimension of their self-profile comprised of negative self-description portraying them as 'law violators,' 'quarrelsome people,' 'unreliable' and 'unsure about themselves.' Moreover, the migrants submitted that Bihari people were 'loud and lazy,' showed 'low civic sense' and even had the proclivity for choosing to act 'practically' or 'dishonestly.' In sum, the migrants did not depict themselves in an outright positive manner but their self-assessed image had some very positive qualities like trustworthy and most importantly, being modest and sensitive people who understood others' feelings.

### **Effort to Understand the Shared Basis of the Migrants' Personal Characteristics: Factors Extracted from the Combined Rating Scores of the Two Groups**

Although the researcher had separately extracted factors by using the rating scores of the local people too, for the present paper, it was decided not to go into their detail but refer and discuss the combined sample factors only. However, before doing so. it may still be useful to give a glance to the factor names, Mean, standard deviation, variance explained and reliability coefficients for the factors extracted from the ratings of the Marathi people against the personal attributes of the Bihari people (see Table. 3).

**Table 3: Factor Names, Mean, Standard Deviation, Variance Explained and Reliability Coefficients for the Factors of the Marathi People's Perception of the Bihari Migrants**

#### **Factor 1**

##### **Modest and sensitive towards feelings**

Mean=2.51(1.03), Variance explained: 11.96%, **r = .84**

2	Modest	.78
1	Simple people	.75
10	Tolerant	.75
9	Understand other's pain and pleasure	.61
4	Respectful towards others feelings	.50
21	Harm other's work	-.46
34	Helpful	.45
27	Loudmouth	-.46

#### **Factor 2**

##### **Clever and practical**

Mean=2.48 (.68), Variance explained: 7.16%, **r =.68**

23	Clever	.73
3	Greedy	.62
20	Give bribe for work to be done	.56
33	Manipulative/operative (jugadi)	.47
36	Selfish	.39

**Factor 3**

**Law breakers and unconfident about self**

Mean=2.75(.91), Variance explained: 6.32%,  $r = .62$

6	Don't follow rules and regulation	.72
5	Low self esteem	.61
7	Say something do something else	.57
8	Want to become rich anyhow	.39

**Factor 4**

**Fearless**

Mean=3.33(.76), Variance explained: 6.19%,  $r = .65$

25	Are fearless	.74
29	Are courageous	.71
28	Are coward and fearful	-.70

**Factor 5**

**Untrustworthy**

Mean=2.42 (.1.07), Variance explained: 5.24%,  $r = .68$

12	Trustworthy	-.74
11	Dishonest	.66
24	Fraud and cheaters	.44

**Factor 6**

**Unsophisticated**

Mean=2.49 (.1.05), Variance explained: 4.47%,  $r = .58$

31	Are rustic	.72
13	Blame others for their fault	.51
32	Quarrelsome	.47

**Factor 7**

**Not contended**

Mean = 2.06 (1.53) Variance explained: 3.77%,

36	Santoshi contended people	-.72
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**The Combined Sample Factors**

Coming to the combined sample factors, it needs mention that the rating scores of both the groups were combined and factor analyzed. The purpose was exploring, (a) whether the factors extracted in this manner, would help clarify the common aspects of Bihari migrants' personal characteristics and (b) whether these factors were comparable with the factors extracted separately by using the rating scores of the two groups. Table 4 contains the factor names, Mean and standard deviation, variance explained and the reliability coefficients for the combined sample factors of the Bihari migrants' personal attributes. The factors are described in the end of table 4.

**Table 4:**

Factor Names, Mean, Standard Deviation, Variance Explained and Reliability Coefficients for the **Combined Sample Factors** of the Bihari Migrants' **Personal Attributes**

**Factor 1**

**Modest and sensitive towards others' feelings**

Mean =2.98 (.89), Variance explained: 12.58%  $r = .83$

Item no.	Item	Loadings
1	Simple	.73
2	Modest , Polite	.72
4	Care for others feeling	.67
9	Understand other's pain and pleasure	.66
10	Are tolerant	.64
34	Helpful	.56
36	Satisfied people	.52
21	Harm others' work	-.47
18	Work collectively	.44

**Factor 2**

**Dishonest and law breakers**

Mean =2.88 (.89), Variance explained: 8.83%  $r = .77$

11.	Dishonest	.69
6	Do not obey law	.60
24	Fraud	.60
14	Don't work without pressure	.55
32	Quarrelsome	.52
12	Trustworthy	-.49

**Factor 3**

**Low in dress and civic sense**

Mean=2.70 (1.17), Variance explained: 8.04%  $r = .50$

16	Do not care about their dress	.77
15	Mess up public places	.65
20	Bribe for work to be done	.51

**Factor 4**

**Want to become rich any how**

Mean=2.66 (.90), Variance explained: 6.20%  $r = .68$

8	Want to become rich any how	.64
23	<b>Are cunning</b>	.58
3	Greedy	.54
35	Selfish	.43

**Factor 5**

**Jugadi** Mean=3.19(.69), Variance explained:  $r = .63\%$

33	Jugadi	.75
30	Sweet talkers	.45

**Factor 6**

**Rustic** Mean =2.60 (1.22), Variance explained: 3.98%

31	Rustic	.70
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Note: S.D. reported in parentheses

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### **Factor 1: Modest, and Sensitive Towards Others' Feelings**

The first factor explained the largest percentage of total variance (12.58%) and shared the common name 'Modest and Sensitive towards Others' Feelings,' due to similarity in the constituent items of the respective first factors of the Bihari migrants' 'self-perception,' and the the local people's 'perception.' In other words, the configuration of the first factors of the separately done factor analysis for the two regional groups, appeared again in the combined sample factor.

Getting back to the combined sample factor 1, the 9 high loading items in this case were, *simple* (loading .73), *modest* (loading .72), *respect others' feelings* (loading .67), *understand others' pain and pleasure* (loading .66), *tolerant* (loading .64), *helpful* (loading .56), *satisfied people* (loading .52), *harm others' work* (loading -.47) and *work collectively* (.44). The only item with a negative loading was *harm others' work*, which did not disturb the factor's configuration. Notably, two of the characteristics (i.e., *satisfied people* and *work collectively*) that showed up in the combined sample factor 1, had not appeared earlier for the commonly shared factor1, extracted separately for the two groups. The new items added a couple of positive qualities to this overall positive factor. The Mean score and the standard deviation for the factor were 2.98 and .89 respectively and the factor showed satisfactory reliability coefficient (Chronbach's Alpha = .83).

### **Factor 2: Dishonest and Law Violators**

The second combined sample factor, with 6 high loading items was named 'Dishonest and Law Violators.' The factor explained 8.83% of the common variance and its highest loading item was *dishonest* (loading .69). It may be recalled that factor 2 of the Bihari migrants' self-perception was named 'Law Violators and Quarrelsome' and three of its highly loading items were the same as the ones that loaded on the combined sample factor 2. The other high loading items of the combined sample factor 2, were, *do not obey law* (loading .60), *fraud* (loading .60), *do not work without pressure* (loading .55), *quarrelsome* (loading .52) and *trustworthy* (with negative loading of -.49). The Mean score for the factor was 2.88 and standard deviation .87. The factor showed a fairly high reliability coefficient (Chronbach's Alpha = .77). Apparently, factor 2 of the Bihari migrants' self-

perception and the combined sample factor 2 shared similarities in configuration to an extent.

### **Factor 3: Low in Dress and Civic Sense**

The third combined sample factor was named 'Low in Dress and Civic Sense,' and explained 8.04% of the common variance. The three high loading items on this factor read, *don't care about their dress* (loading .77), *mess up public places* (loading .65) and *bribe for work to be done* (loading .51). The Mean score and the standard deviation for the factor were 2.70 and 1.17 respectively. The factor did not have very high Chronbach's Alpha (.50).

### **Factor 4: Want to become Rich any How**

Factor 4 explained 6.20% of the common variance and was entitled, 'Want to Become Rich Anyhow, the four high loading items on this factor were, *want to become rich any how* (loading .64), *cunning* (loading .58), *greedy* (loading .54) and *selfish* (loading .43). The factor's Mean score and standard deviation were 2.63 and .90 respectively and the factor appeared to be a reliable one (Chronbach's Alpha = .68).

### **Factor 5: Jugadi (One who can manage)**

Factor 5 was named 'Jugadi' as it featured Biharis as people who could manage things anyhow and were therefore, *jugadi*. The first high loading item on this factor was *jugadi* (loading .75), and the second one was *sweet talker* (loading .45). The items seemed to make sense together. The factor had the highest Mean score (i.e., 3.19) and the smallest standard deviation value (i.e., .69) therefore, it appeared to be a more readily endorsed factor with little variability in the responses. The factor explained 4.86 % of the common variance but showed a Chronbach's Alpha with a negative sign of -.63. The alpha reliability value appears negative due to a negative average covariance among items. This violates reliability model assumptions.

### **Factor 6: Rustic**

Labeled as 'Rustic', Factor 6 was a single item factor with the same name (loading = .70). The Mean score for the factor (i.e., 2.81) was accompanied by a large standard deviation (1.32) while the item explained 3.98% of the common variance. Finally, as the interest also lay in discovering the significant differences between the Mean scores of the combined sample factors, the observations in this context are presented in table 5.

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**Table 5: Significant Difference between the Mean Scores of the Combined Sample Factors**

Factor Name	Mean	Mean	Mean Difference	T	df	Sig. (2-tailed)
	(S.D)	(S.D.)				
	Bihari	Marathi				
Factor 1						
Modest and sensitive towards others' feelings	3.35 (.58)	2.59 (.98)	.76	8.10	293	.000
Factor 2						
Dishonest and law breakers	3.28 (.62)	2.49 (.94)	.78	8.58	305	.000
Factor 3						
Low civic sense	3.32 (1.14)	2.09 (.82)	1.23	10.89	305	.000
Factor 4						
Want to become rich any how	3.12 (.75)	2.15 (.77)	.97	10.98	294	.000
Factor 5						
Jugadi	3.13 (.67)	3.25 (.72)	<b>-.12</b>	-1.56	305	<b>.12</b>
Factor 6						
Rustic	3.03 (.88)	2.18 (1.36)	.85	6.49	305	.000

Independent Samples Levene's Test for Equality of Variances *df between*: 294 -305 Table 5 shows that the Mean scores of the combined sample factors differed significantly in case of five out of the six factors. That is, the Bihari migrants had rated themselves significantly more highly on 5 out of the 6 factors irrespective of the factors being positive or negative in character. More specifically, the Bihari migrants self-categorized themselves significantly highly on characteristics that presented them as 'Modest and Sensitive towards Others' Feelings', but also 'Dishonest and Law Breakers,' persons having

'Low Civic Sense', 'Rustic' and those, 'Wanting to Become Rich Any How.' The only personal attribute on which the two groups did not show any significant difference was *Jugadi* (factor 5).

The combined factor1, portrayed the migrants as '*modest, simple, helpful, sensitive towards others' pain and pleasure and people who did not harm others,*' seemed plausible. It has been mentioned that the migrants came to Mumbai with the help and support of other co-villagers, relatives and friends. Moreover, being villagers, they were familiar with the culture of interdependence, sharing and believing in community

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life values. Apparently, the migrants seem to have retained a villager's simplicity and modesty and sensitivity towards others' sufferings and difficulties. However, the high Mean score for the factor 'Dishonest and Law Breakers,' makes one think. One interpretation could be that the migrants knew some other Bihari migrant in Mumbai personally, or otherwise, who were 'law breaker' and 'dishonest.' Perhaps, the other combined factors hinted that the migrants felt attracted towards certain negative tendencies (i.e., 'wanting to become rich any how') and recognized being *rustic* and having *low civic sense*.

### Summary of the Findings

If one looked into the factors in each case that is, Bihari migrants' self-perception, local people's perception of the migrants' personal attributes, and the combined sample factors, one came across two prominent streaks in the Bihari people's overall personal image. One of the two, the positive strand, seemed exclusive for the people of this regional group and described the migrants as, *simple, modest and sensitive towards others' feelings*. Moreover, a few high loading items such as, *timid, rustic and confirmatory*, that were parts of the factors from different instances, still complemented the factor's positive configuration.

The other prominent dimension in the Bihari migrants' overall representation was negative, and emerged despite how the ratings were used for extracting the factors. For example, the migrants were rated as *law breakers and quarrelsome* according to the migrant's own self-perception, *dishonest and law breakers* (according to the combined sample factor) and *law breakers and untrustworthy* (according to the Marathi people's perception). There were a few indications that the Bihari people were clever and *practical*, knew how to manage things (*jugadi*), *wanted to become rich anyhow*, and were *untrustworthy*.

However, it was obvious that the migrants self-rated themselves significantly highly on positive attributes while the local people on the negative ones and, there were two prominent aspects of Bihari people's overall representation. The findings showed some anomalies in the nature of the factors and their constituent items when rating scores were used from different instances. This seemed probable. Further, in general, the factors did not explain large percentage of total variance and occasionally showed large standard deviations and modest factor Means.

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## Spiritual experiences of Islamic seekers

Received: 23.November 2021

Accepted: 06.December 2021

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### Abstract

*In this paper I intend to present a classified description of the experiences of the seekers who subscribe to the religion Islam bringing the essential characteristics of these experiences to the fore. The paper shall also explain an aspect of experiences through drawing insights from the philosophy of physics as it has developed in the past century. Since the use of the term seeker is treated here as an interchangeable with the term Sufi, the later shall be used throughout this discourse and the word experiences shall imply Mystic experiences.*

**Keywords:** Sufi, Chisti, Islamic, mystic experiences

Prince Darashikoh has described experiences of two great Sufis of his time to whom he was spiritually affiliated. This description is contained in his celebrated book *Sakinatul Auliya* whose Urdu translation appeared from Delhi (1971).

Darashikoh mentions one Miyan Jeeyu and another Mulla Badakshi who were his spiritual masters and whose experiences included divining, spiritual healing, an overwhelming altruism, an effluent love and power for bringing the determinate order of causality to a state of collapse; a phenomenon that will be explained in this disclosure later on. They could create an atmosphere of ecstasy in their monastery and were capable of performing miracles. It is reported by Darashikoh that once a hunter killed a dove that was perched on the branch of a tree while Miyan Jeeyu had already warned him to refrain from such act. The Sufi was utterly dejected when the dove fell dead and he immediately sent one of his followers to bring the innocent creature to him. He took the bird in his hand and as he caressed it the bird came to life and flew away. However, the person who had killed was so obstinate that he again intended to kill it. But as soon as he pulled the catapult, he felt giddiness and severe pain because the stone in the catapult bounced back at him, and thereafter he himself fell dead on the spot.

Mulla Badakshi used to go into the state of pranayama for long hours and his followers also liked to practice pranayama. Mulla Badakshi has warned his followers not to accept such words as Believer, Disbeliever, Hell, Heaven after the manner of orthodox fundamentalists whom he treated as ignorant of their real meanings. It may be apt to recall here that one of the greatest Sufi of Islam, namely Moulana Jalaluddin Rumi said in his 'Mathnavi' that "I have taken the kernel out

of the Quran and left the bones to dogs." By saying thus, however, he never meant any disrespect to the Quran or any disparagement of the Holy Book. The Quran itself encourages us drawing our attention to the fact that those who are steeped in its meaning take the best out of it. In his book, 'Spirit of Islam' Syed Ameer Ali (1949) tells us: "The idea among the nobler minds in the world of Islam, that there is a deeper and more inward sense in the words of the Koran, arose not from the wish to escape from the rigor of "texts and dogmas" but from the profound conviction that those words mean more, not less, than the popular expounders supposed them to convey" (p.450). In fact, the emphasis on the esoteric component of religion has always been a source of confrontation between the Sufis and the Fundamentalists through the ages in the history of Islam, and the Sufis have always been insulted, tortured and even put to death by the Fundamentalists. As we already know, after his defeat at Samugarh, and his unsuccessful attempt to seek refuge in Afghanistan, Darashikoh was put to death by his brother Aurangzeb under the Fatwa issued by the fundamentalist judge. A similar situation exists today in the World of Islam. Sufism is banned in Saudi Arabia. It is thrived in few countries like Bangladesh, Pakistan and in Iran.

In India we come across Sufis of the Chishti Order who have left a permanent mark on the minds of the people of different faiths. Hazrat Khwaja Moinuddin Chishti, Hazrat Nizamuddin Auliya and Baba Farid Ganjshakar stand as spiritual leaders of the Sufis of India. Instances of spiritual healing, and Effluent Self, giving unbounded love, positive attitude of acceptance of the people of different faiths, mathematically correct and precise forebodings, willful intervention in order of causality and thereby changing the course of

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events in the lives of people and a lifelong service to humanity are found in the biographical accounts of the Sufis of the Chishti order brought out by the late Professor Khaliq Ahmad Nizami, and around one hundred and ninety conversions held by Hazrat Nizamuddin Auliya are compiled in his celebrated 'Fawaidul Fawad' telling us in abundance about the experiences as mentioned above. He had also taught us about the powers of Supermind which is capable of having a sense called 'Taur-E-Qusus' which seems akin to the idea of the Supermind given to us by Sri Aurobindo.

Nicholson (1970) has brought to us the translation of the one of the most celebrated Treatise on Sufism written by the Sufi writer Al-Hujwiri. We find biographical accounts of over seventy Sufis of Syria, Persia and Iraq experiencing presence of God, and having love, kindness, compassion, forgiveness and altruism. We shall mention here some of those strange experiences that cannot be apprehended by reason and common sense. These experiences include willful intervention in the order of causality and death under Audition, i.e., on hearing certain words whose effects cause death which is probably desired by the Sufi.

Two things emerge quite clearly from the above-mentioned reports. Sufis have been able to perform acts that bring the determinate order of causality to a state of collapse. We shall try to explain it more on the plane of science later on in this discourse. The other things pertain to the experiences of love and of ecstasy and rapture which can cause death. Death has not been an unwanted experience to Sufis who have generally preferred to meet it with gaiety. We learn more about the mystery of death through observation of Al Hujwiri which we are citing here at length.

Abu Bakr Muhammad B. Umar Al-Warraqwas a great Shaykh and ascetic. He is the author of books on rules of discipline and ethics. The Sufi Shaykhs have called him "The Instructor of the Saints" (muaddib al-awliyd). He narrates the following story: "Muhammad b. 'Ali handed to me some of his writings with the request that I should throw them into the Oxus. I had not the heart to do so, but placed them in my house and came to him and told him that I had carried out his order. He asked me what I had seen. In replied, "Nothing". He said, 'You have not obeyed me; return and throw them into the river'. I returned, doubting the promised sign, and cast them into the river. The waters parted and a chest appeared, with its lid open. As soon as the papers fell into it, the lid closed and waters joined against and the chest vanished. I went back to him and told him what had occurred. He answered,

'Now you have thrown them in'. I begged him to explain the mystery. He said: 'I composed a work on theology and mysticism which could hardly be comprehended by the intellect. My brother Khidr desired it of me, and God bade the waters bring it to him'. (p.142) (www.gutenberg.org)

"Concerning expressive love) (ishq) there is much controversy among the Shaykhs. Some Sufis hold that excessive love towards God is allowable, but that it does not proceed from God. The essence of God is attainable or perceptible, that man should be able to feel excessive love towards Him; but Man feels love (mahabhhat) towards God, because God, through his attributes and actions, is a gracious benefactor to His friends". (p.310)

Muhibb says: "The lovers of God have borne away the glory, of this world and the next, for the Prophet (PBUH) said, "A man is with the object of his love. Therefore, they are with God in both worlds, and those who are with God can do no wrong. The glory of this world is God's being with them, and the glory of the next world is their being with God. A lover delights in the affliction that his beloved makes him suffer, and having love he regards kindness and unkindness with the same indifference." (www.gutenberg.org)

"Junayd had a disciple who wants to be greatly agitated in audition, so that the other dervishes were distracted. They complained to Junayd, and he told the disciple that he would not associate with him if he displayed such agitation in future (www.gutenberg.org). "I watched that dervish", say Abu Muhammad Jurayi, "during audition: he kept his mouth shut and was silent until every pore in his body opened; then he lost consciousness, and remained in that state for a whole day. I know not whether his audition or his reverence for his spiritual director was more perfect." It is related that a man cried out during audition. He said his head on kids' knee, and when they looked, he was dead. I heard Shaykh Abi Muslim Faris b. Ghalib al-Farisi say that someone laid his hand on the head of a dervish who was agitated during audition and told him to sit down: he sat down and died on the spot. Raqqi relates that Darraj said: "while Ibn al-Quti and I were walking on the bank of Tigris between Basra and Ubulla, we came to a pavilion and saw a handsome man seated on the roof, and beside him a girl who was singing this verse:

*'My love was bestowed on thee in the way of God;*

*Thou changest everyday: it would beseem thee better not to do this.'*"

A young man with a jug and a patched frock was standing beneath the pavilion. He exclaimed: 'O damsel, for God's sake chant that verse again, for I have only a moment to live; let me hear it and die!' The girl repeated her song, whereupon the youth uttered acry and gave up his soul. The owner of the girl said to her, "Thou art free", and came down from the roof and busied himself with preparations for the young man's funeral. An eminent Shaykh relates that when he was walking in Baghdad with a dervish, he heard a singer chanting –

*"If it be true, it is the best of all objects of desire,  
And if not, we have lived a pleasant life in it."*

The dervish uttered a cry and died. Abu Ali Rudbari says:

I saw a dervish listening attentively to the voice of a singer. I too inclined my ear, for I wished to know what he was chanting. The words, which he sang in mournful accentism were these:

'I humbly stretch my hand to him who gives good liberally.'

Then the dervish uttered a loud cry and fell. When he came near him, we found that he was dead. A certain man says: "I was walking on a mountain road with Ibrahim Khawwas. A sudden thrill of emotion seized my heart and I chanted –

*'All men are sure that I am in love,*

*But they know not whom I love.*

*There is a man no beauty*

*That is not surpassed beauty by a beautiful voice.'*

Ibrahim begged me to repeat the verses, and I did so. In sympathetic ecstasy (tawajjud) he danced a few steps on the stony ground. I observed that his feet sank into the rock as though it were wax. Then he fell in a swoon. On coming to himself he said to me: 'I have been in Paradise, and you were unaware'. "I once saw with my own eyes a dervish walking in meditation among the mountains of Adharbayjan and rapidly singing to himself these verses, with many tears and moans:

*"By God, sun never rose or set but thou wet my heart's desire and my dream.*

*And I never sat conversing with any people but thou wert the subject of my conversation in the midst of my comrades.*

*And I never mentioned thee in joy or sorrow but love for thee was mingled with my breath.*

*And I never resolves to drink water, when I was athirst but I saw an image of thee in the cup.*

*And I were able to come I would have visited*

*thee, crawling on my face or walking on my head".*

On hearing these verses, he changed countenance and sat down for a while, leaning his back against a crag, and gave up his soul" (p.410).

That fact is that if we can scan through the biographies of the Sufis we cannot escape the conclusion that at higher stages of spiritual advancement experiences well up from the hidden sources of human existence. There are also experiences of the Sufis that are comparable to what we find in the Biography of a Yogi. For example, some Sufi have been seen at two places at the same time. Such things go to break up the very structure of our intellect and they can never be explained so long we remain incapable of liberating our thoughts from the ambit of notions brought to us by classical Physics. We shall deal with it much at length later on.

Sir Mohammad Iqbal (1934) in his lectures on Islam tells us about the essence of the Sufis which represents the religious experience of Islam. He writes, "In the history of religious experience of Islam, which according to Prophet (PBUH), consists in the 'creation of Divine attributes in man,' this experience has found expression in such phrases as – 'I am the creative truth' (Hallaj), 'I am time' (Muhammad), 'I am the speaking Quran' (Ali), 'Glory to me' (Ba Yazid). In the higher Sufism of Islam unitive experience is not the finite effacing its own identity by some sort of absorption into the Infinite Ego; it is rather the Infinite passing into the loving embrace of the finite. As Rumi says: "Divine knowledge is lost in the knowledge of the saint! And how is it possible for people to believe in such a thing?" (p.104)

Such utterances are possible only at farther reaches of human awareness. For a moment, therefore, we must turn to Sri Aurobindo (1986). The great seer tells us: "To get back to the essential fact of his freedom he must recover the sense of Oneness, the consciousness of Brahman and with the Lord. Recovering his freedom, realizing the oneness in all existences as becoming of the One Being who is also himself (So 'ham asmi, He am I) he is able to carry out divine actions in the world, no longer subject to the ignorance because free in knowledge." (p.62) He then says "This is the Lord, the purusha, the self-consistent Being. When we have this vision, there is the integral self-knowledge, the perfect seeing, expressed in the great cry of the Upanishad, So'ham. The Purusha there and there, He am. I." It is perhaps for this reason that Sri Aurobindo drew our attention to the view that Sufism repeats the

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Upanishads in a different religious language.

In fact, the Sufi terminology is very vast, and its connotations stretch far beyond the language used by the Fundamentalists in Islam who generally abhor Sufi expressions. Hallaj was put to death for his utterances. Having acquainted ourselves with the mode of experiencing reality common to all Sufis we may now turn to see how the character of such experiences can be understood.

### *The Characteristics of Mystic Experiences*

Perhaps the most eloquent and systematic description of the mystic experiences is brought to us by William James (1958) in his well known book 'Varieties of Religious Experience'. He has mentioned four basic aspects of these experiences. 1. Ineffability, 2. Neotic quality, 3. Transiency, and 4. Passivity. Under each of these aspects James brings instances from the lives of persons who have been mystically-oriented. We believe that James draws quite close to Sri Aurobindo in admitting that "No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded." (p.289) He is still more close to our great seer in giving expression to the idea of immortality. "With these come what may be called a sense of immortality, a consciousness of eternal life not a conviction that he shall have this, but the consciousness that he has it already". (p.306) Sri Aurobindo teaches us that "It is here, Ihaiva in this mortal life and body that immortality must be won, here in this lower Brahman and by this embodied soul that the Higher must be known and possessed." (p.163) It can therefore be safely stated here that the Sufis actually experienced Sachidananda. Their lives of piety, unselfish love and the purity of their thoughts expressed in their teachings all witness this fact.

Scanning the biographical accounts of Sufis and attending to the modes of their experience we come across things that are quite inexplicable. They cannot be understood so long we are not prepared to accept an altogether different vision of reality which removes all limits set by Determinism. We can safely call it Scientific Mysticism.

### *Scientific Mysticism*

Ernst Cassirer (1944) had once said, "Mysticism reveals to us, or rather would reveal to us, if we actually willed it, a marvelous prospect but we do not, and in most cases we could not, will it; we should collapse under the strain. Therefore, we remain with a mixed religion." (p.134) these words of Cassirer seem prophetic. Scientific Mysticism, as it is believed by the author of this discourse is bound to take us toward the

Religion of Humanity as envisaged by Sri Aurobindo (1985); create a formidable counter-force against terrorism on the ideological and practical plane, and open up the channel for understanding the esoteric component of religion under an Integral-Holistic Vision of Reality. It wants us to bring peace in this world through the inner unification of humankind. We have therefore attempted to see how Scientific Mysticism can be understood in the context of the Philosophy of Physics as it has been advanced by Einstein, Max Planck, Neils Bohr, Werner Heisenberg and Sir Arthur Eddington.

One of the greatest Sufi Philosophers who can visualize anything like Scientific Mysticism Ibn al-Arabi of Spain who was treated as a heretic by the Islamic clerics but escaped being put to death. He has brought to us the celebrated principle of the 'The Unity Of All Being' which is examined by this author in the light of the Philosophy of Physics. This principle may also be called oneness of Existence.

### *The Unity of All Being*

This principle tends to bring together those thought-currents of the present day world that take us toward a unified vision of reality, and it goes to serve the life of humanity in aspects we have mentioned above.

This principle is the keynote of Sufi orientation of life in the fold of Islamic religion but it is abhorred and seriously disapproved by the fundamentalists.

At its fundamental level it is an integrating force tending to bring together what Northrop (1947) calls the "Aesthetic Component" of the Eastern culture and the "Theoretic Component" of the cultures of the West under the single set of meanings arrived at through a paradigm shift from the Classical Physics of Galileo, Newton and Dalton to the Field Physics of Maxwell and Faraday. How it is actually brought about has been fully explained by the present author in a Treatise on World Peace.

Since it is not possible to present it here in the short space of this paper, the author is providing Appendix I, II and III giving its full details because there is no other way at all for bringing it home to interested readers. We shall however present here the essence of this great principle but before that it is apt to mention that the Sufis who presently subscribe to it have their centres at Agra and Bareilly and generally, they owe their allegiance to Hazrat Mohammad Ali Shah who was also the recipient of the award from Ghalib Academy for his Sufi poetry. He is known as Maikash Akbarabadi and departed from this world many years back in 1991.

The experience of these existing Sufis whose ancestry is traced back to the time of the Mughal Emperor

Jahangir are unique and they range from the true dreams, spiritual healing, ecstasy under Sufi music, and a nearly unbelievable super intuitive knowledge to an equally unbelievable living interaction with Sri Krishna. Their unique poetry also represent Krishna Bhakti. Perhaps the most visible aspect of these Sufi of the Chishti Order is the experiences of divining and spiritual healing. Those who have interacted with these living Sufis report feelings of comfort, happiness and peace.

Hazrat Maikash Akbarabadi was an advocate of the Unit Of All Being Or Oneness Of Existence. In a nutshell, when stated in the language of science, it can be said that we humans live in an encompassing Unified Field Of Directive Energy holding the Determinate Order Of Causality in a paradoxical relationship with the Intermediate Order of Causality which was once envisaged by the great Immanuel Kant and which is derived from the notion of Causality advanced by Max Planck. Human consciousness is capable of coming into an Equation Of Consonance with the Intermediate Order under which it can acquire the power bring the events of the Determinate Order to a state of collapse that appear as freak of nature. What appears as chance in our experience of cause and effect can be apprehended as order under the action of consciousness upon pure duration.

The idea of Oneness of Existence is inalienable to this principle. Oneness of existence denotes life's inherent tendency for connectedness with its sources of existence that are inseparable aspects of reality. Man, therefore stands in an inseparable relationship with reality under four interpermeating Relational Patterns: 1. The Physical World; 2. The Other Self; 3. His Own Self; and 4. The Transcendental order of Causality. Human destiny unfolds itself from these sources of existence. These primary and irreducible patterns single out man's supreme and primary identity from all his secondary identities. The Sufi concept of the Whole Man arises out his connectedness with all aspects of reality but man is free to break away his relationship with any of them, in other words he can destroy any of these primary relational patterns. However, the price which nature has set for his flagrant existential fault is the forfeiture of his supreme identity, his creativity, and the meaning of his life. Man may thus sink into lifeless existence.

The Sufi principle goes further, telling us that inner self or the heart (Qalb) is the centre of our being and also the centers of our connectedness with reality. Fuller Royal and Gregory Olson (1998) tell us that the inner self reminds the individual of his connectedness to ev-

erything in the universe (non-linear physics, quantum mechanics, wholeness) and encourages the conscious mind to seek unit (love) rather than separateness, in the soul's relationship with others" (p.26). Turning to Rom Landau (1956) we find that love has a crucial role in the Sufi perspective of existence. Ibn al-Arabi treats love as all pervasive holding together all beings. It is fundamentally one representing the essence of the Divine. Human heart is the abode of love. "Were it not for love. Love would not be worshipped"(p.62). In fact love is the keynote in the system of Sufi principle and in a sense, the goal of evaluation. In yet another sense it is the beginning and end of existence. The meaning of existence is amputated if love is taken out of it and hence it cannot be separated from connectedness. Ken Wilber (1995) affirms this position irrefutably.

Mystical experience, as the Sufi principle teaches us cannot be differentiated so far as God is experienced as Light and Love. Writers like William James, W.R. Inge, W.T. Stace. Evelyn Underhill, Rufus M. Jones and Rudolf Steiner affirm the position taken by the Sufi principle which we have brought out. The Indian writer Saral Jhingran (1982) tells us that "Ibn'l Arabi explains love as that which pervades all being and holds them together. However much it may differ in form, it is fundamentally one, for it represents God's Essence. Not only the soul is created in the image of God (or is an expression of an idea 'in' God's Logos), the love that binds the soul with God is itself God's Essence. This love brings the gulf between the creature and the creator". (p.154) "The universe according to Rumi (1999) is a realm of love. In comparison with love, law and reason are secondary phenomena. It is love that creates to fulfill itself and reason steps in later to look at it retrospectively, discovering laws and uniformities to seek the threads of unity in diversities of manifested life". (p.834)

Explaining Ibn-al-Arabi's position, the renowned Egyptian professor Affifi writes: "The ultimate goal of all mysticism is love; and ibn 'Arabi's mystical system in particular, it is the full realization of the union of the lover and the Beloved. Now, if we look deeply into the nature of worship, we find that love forms its very basis. To worship is to love in the extreme. No object is worshipped unless it is invested with some sort of love; for love is the divine principle which binds together and pervades all beings. This means that the highest manifestation in which God is worshipped is love. In other words, universal love and universal worship are two aspects of one and the same fact. The mystic who

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sees God (the Beloved) in everything worships Him in everything. This is summed up in the following verse:

*I swear by the reality of Love and Love is the cause of all love*

*Were it not for Love (residing) in the heart. Love (God) would not be worshipped”.*

Love is the greatest object of worship and it is the only thing that is worshipped for its own sake. Other things are worshipped through it. God as an object of worship, therefore, resides in the heart as the supreme object of love. He is not the efficient cause of the philosophers or the transcendent God of the Mu'tazilites. God is in the heart of His servant and is nearer to him than his jugular vein. "My heaven and my earth contain Me not". Says the prophetic tradition, "but I am contained in the heart of My servant who is a believer".

The writings of the great Al-Ghazali would give impression to any careful reader that he had experiences of intense love of God. His idea of soul seems to draw quite close to the idea of Sri Aurobindo (1986). "The human soul is one with the Lord", says Aurobindo, and then he proceeds to tell us that the Silent Brahman within must be recovered. Citing from Ghazali's famous writing *Kimiya-l-Saadat* Professor Saeed Sheikh (1999) has given us an authoritative account of Ghazali's mysticism, "not only are man's attributes" says Al-Ghazali" a reflection of God's attributes but

the mode of existence of man's soul affords an insight into God's mode of existence". "He who knows himself knows his Lord". Like Sri Aurobindo, Al-Ghazali teaches us that man has infinite spiritual possibilities and the mind he experiences as thought and perception is not the essential element of soul. Soul can recover its completeness through going back to its self-existence. Both these great seers and thinkers want us to know Silent Purusha or the Amr.

### Conclusion

Sufis had a very deep concern with the idea of sacredness of man and his life. Violation of this idea amounted to an outright violation of the Will of God. Consequently, the idea of human dignity was held supreme in their ethics. The present author believes that this idea as it is now advanced by Sri Aurobindo must be treated as a Universal Principle of Human Dignity and every effort should be made by implementing it at the National and International levels. It is believed by this author that Sufism brought up as Scientific Mysticism shall cut the roots of Terrorism originating under Fundamentalism in Islam, if a Union is created between the Sufis and the adherents of the Religion of Humanity as envisaged by Sri Aurobindo. Such a Union can create peace in this world and bring about the cherished inner unification of humankind transforming humanity into a Family of God.

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# Operationalization of green behavior at workplace: Analyzing three major constructs

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Received: 17 November 2021

Accepted: 06 December 2021

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## Abstract

*Pro-environmental behavior is a broad construct of individual activity that minimizes harm to or benefits the environment. Different researches have given different terminology for different aspect of those environment oriented behavior. Present research compares between the three different constructs of pro-environmental behavior at workplace which has been extensively researched upon in the last decade- employee green behavior, voluntary workplace green behavior and organizational citizenship behavior towards environment. Theoretical comparisons of the three variables were done. Comparisons among the three variables were also done by collecting data using measures of three variables. Data was collected from 234 employees from chemical manufacturing firm. Factor analysis was done to find out factors. Result of factor analysis showed similarities among the variables. The items of three scales loaded into three factors – daily pro-environmental activities, lesser consumption of resources and alternative pro-environmental steps. The similarities among the variables along with theoretical contribution are discussed. Comparison among three major initiatives have been done.. A comprehensive tool which has been suggested can be used by future researchers to measure environmental behavior at workplace.*

**Keywords:** employee green behavior, voluntary workplace green behavior, organizational citizenship behavior towards environment, factor analysis, pro-environmental behavior.

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Pro-environmental behavior is a broad construct of individual activity that minimizes harm to or benefits the environment (Steg & Vlek, 2009). Studies on pro-environmental behavior with individualistic approach (Sia & Jose, 2019) and collective approach (Sia, 2019) in various contexts have been extensively researched upon, but in context of workplace have got researchers attention only in very recent past (Anderson, Jackson & Russell, 2013; Ones & Dilchert, 2012b). The pro-environmental behavior done in daily life is different from the behavior one does inside organization because of the contextual differences of the location and amount of control one has over their behavior (Norton, Zacher, Parker, & Ashkanasy, 2017; Dalal, Bhawe & Fiset, 2014).

Several researches have been done on behavior of employee which they do for the environment. The interest of researchers in pro-environmental behavior at workplace has made it conducive for the researcher to take up construct and come up with different terms.

Different researches have given different terminology for different aspect of those environment oriented behavior ( e.g., Ones & Dilchert, 2012a). Need of operationalization in theory is very crucial in explanation of the constructs and measurement of it. The present research reviews and explains the three different type of constructs which measure pro-environmental at workplace by first reviewing the literature related to it and then using measures each of the constructs and comparing it. Previous review research done have concentrated more on operationalization of construct and measurement scales and their items (eg., Francoeur, Paillé, Yuriev, & Boiral, 2019). Previous research have concentrated more on organizational and individual determinants of pro-environmental behavior and on antecedents and outcomes of it (eg., Lo, Peters & Kok, 2012; Inoue & Alfaro- Barrentanes, 2015). Present research compares between the three different constructs of pro-environmental behavior at workplace which has been extensively researched upon in the

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last decade- employee green behavior, voluntary workplace green behavior and organizational citizenship behavior towards environment. The paper is structured as follows. First the literature of each constructs is discussed. Second, comparisons among the constructs are explained. It is then followed by the methodology of empirical study and then the result of the study is presented. Lastly the theoretical contribution and limits of the paper are discussed in the conclusion.

#### **Organizational citizenship behavior towards environment (OCB-E)**

The emerging literature on OCB-E has mainly focused on the issues of definition and scope, theoretical models of its antecedents and outcomes (Daily, Bishop, & Govindarajulu, 2009), different measures and empirical exploration of OCB-E and other variables. OCB-E can most comprehensively be defined as the “environmental efforts that are discretionary acts, within the organizational setting, not rewarded or required by the environment” (Daily et al., 2009 p.243). Most researches point out that organization citizenship behavior towards environment are driven by supervisory support, social norms, personal disposition and self-efficacy (e.g., Ramus & Killmer, 2007, Daily et al., 2009). Research on difference between OCB-E and organization citizenship behavior highlight that OCB-E are not directed at the organization but it focuses on behavior which are for betterment of environment where the organization operates (eg., Tosti-Kharas, Lamm & Thomas, 2017; Lamm, Tosti-kharas, & Williams, 2013). OCB-E construct is comprised with three categories- eco-initiatives, eco-civic management and eco-helping. Eco-initiative are those behaviors which are been started by the employee themselves. Eco-civic management include taking part in environmental events organized by organization and eco-helping are those actions taken by one employee to make other colleagues more environmental concerned (Lamm, Tosti-kharas, & Williams, 2013; Boiral & Paille, 2012). Boiral (2009) has explained OCB-E as the application of organizational citizenship behavior as per the model given by Organ et al (2006). The dimensional approach proposed by Organ (1988) divides OCB into five dimensions: altruism, conscientiousness, sportsmanship, civic virtue and courtesy. The dimensions mentioned in OCB-E are same as the OCB but the behaviors are directed towards environment: helping (collaborating and encouraging other workers to consider environmental issues), sportsmanship (positive attitude

towards inconvenience associated with environmental practices), organizational loyalty(following policies of organization for sustainability), organizational compliance (compliance with environmental policies), initiative (environmental initiative) and self-development (attainment of environmental knowledge) (Boiral, 2009; Boiral, Talbot, & Paillé, 2015).

Previous literature on OCB-E show that it has a significant impact on the corporate greening and employees’ OCB-E behavior contribute to the environmental leadership but it is highly mediated by managers’ value and priorities (e.g., Boiral, Raineri & Talbot, 2018; Bowler et al. 2010). Research by Lufs and Hans (2013) show a more complex model that distinguish between the distal predictors and more direct motivational components. The distal predictors can be organizational context, awareness of need and social norms to name a few. The motivational determinants can be perceived behavioral control, personal moral norm. This model also explains that habitual process can act as moderator intentions and behavioral act (Boiral, Talbot, et al., 2015). Studies have shown that CSR initiatives taken by the company also has significant positive effect on OCB-E (e.g., Tuan, 2018; Brammer, He & Mellahi, 2015) and research also show that perception of CSR has positive effect on OCB-E mediated by organizational identity and environmental fit (Cheema, Afsar & Javed, 2019). There has been extensive research to propose a comprehensive measurement scale for OCB-E (e.g., Boiral & Paille, 2012; Boiral, Talbot, & Paillé, 2015). Boiral and Paille have at first tried to find out comprehensive measurement scale based on three dimensions of OCB-E. A 12 itemed scale was constructed by Lamm, Tosti- Kharas and William (2013) and is one-dimensional in nature and is measured on 7 point Likert scale. Another scale for OCB-E measurement in managers have been constructed by Boiral, Talbot and Paillé, (2015). The scale consists of three items and is measured on 5 point Likert scale.

#### **Employee Green Behavior (EGB)**

The emerging literature on EGB have focused mainly on the definitions, scopes, theoretical models (Boiral, Paille, & Raineri, 2015), taxonomy of behaviors which should be included (Ones & Dilchert, 2012). Employee green behavior can be defined as “scalable actions and behaviors that employee engage in that are linked with and contribute to detract from environmental sustainability” (Ones & Dilchert, 2012 p.87). Employee green behavior can be divided into

two types- required EGB and voluntary EGB. Required EGB is the one in which contributes to core business goal and one which is performed within the employee's required job duties. It may require choosing some sustainable alternative and creating something sustainable product. The concept of voluntary EGB involves personal initiative that is beyond the organizational roles. The concept of voluntary EGB is closely associated with contextual performance and organizational citizenship behavior. Recent research on EGB show that employees not only differ from one another in terms of EGB (between-persons variation) but there is changes in EGB over the time also (with-in person variation). Research on within person variation EGB showed that green psychological climate moderates the relationship between green behavioral intention and EGB that is acted out in the organization (Norton, Zacher, Parker, & Ashkanasy, 2017; Bissing-Olson, Iyer, Fielding, & Zacher, 2013).

Research also shows that positive psychological climate helps to strength green behavioral intention and leading to more EGBs (Smith- Corwe, Burke & Landis, 2003). Researches also show that if the employees are aware of company's corporate environmental strategies then the knowledge acts as moderating factor for EGB (Norton, Zacher, Parker, & Ashkanasy, 2017). Studies show that when employees made to engage in the CSR initiatives which lead to higher employee well-being which in turn lead to more positive behavior like green behaviors, helping others (e.g., Su & Swanson, 2019; Ahmed, Zehou, Raza, Quershi & Yousufi, 2020). There are different set of factors which contribute to EGB at different level of the organization. At the institutional level there was found to be significant positive relationship between employee engagement in required behavior (Del Brio, Fernandez & Junquera, 2007). At the organizational level, there are enormous numbers of factors that contribute to EGB. The factors include attitude of organization towards the environment (Cantor, Marlow & Montabon, 2012). Policies for environmental sustainability are also important factor in influencing both voluntary and required EGB (Ramus & Stager, 2000). The effect of EGB on organization can be clearly seen in cost saving. Result on this research line show mixed result (Paille, Chen, Boiral & Jin, 2014). A measurement tool for EGB was developed by Norton et al (2014). The measurement tool consisted of 6 items half of which measured required EGB and 3 items measured voluntary EGB. The scale used five point

Likert scale. The scale is extensively used for measurement of EGB.

#### **Voluntary Workplace Green behavior**

Researches on voluntary workplace green behavior have mostly focused on finding out its definition, scope, its relation with other organizational constructs and measurement scale. Voluntary workplace green behavior (VWGB) is type of "prosocial or citizenship behavior that can occur in workplace" (Kim, Kim, Han, Jackson, & Ployhart, 2017 p.1337). VWGB is not specified in job description for most of the employees working in an organization (Ramus & Killer, 2007). The theoretical model of VWGB is based on functional approach to organizational citizenship behavior (Lavallo, 2010) and CSR engagement (Aguilera et al., 2007). VWGB exhibited by the employee help organization directly by conserving resources and energy reduction and also by preserving natural environment for sustainability. Research on dispositional factor influencing VWGB show that conscientiousness acts as a distal dispositional factor and moral reflection as proximal determinants as conscientiousness would stimulate VWGB thorough morality (Feinberg & Willer, 2013; Kim, Kim, Han, Jackson, & Ployhart, 2017).

Research on leadership and VWGB show that when employees work in small work groups, leader's behavioral cues and work group's green advocacy have an amplifying on individual's VWGB (Kim, Kim, Han, Jackson, & Ployhart, 2017). Research on relation between job satisfaction and VWGB show that positive relation between the two. The research show that positive relationship between direct behavior of VWGB and job satisfaction (e.g., Biga et al., 2012; Kim, Kim & Han, 2019). Researches on corporate environmental strategy show that it doesn't have direct positive effect on voluntary workplace green behavior but it may have an effect on green psychological climate (Das, Biswas, Jilani & Uddin, 2019). Research done on new generation employee also shows that green display rules acts as a deciding factor for an employee to exhibit VWGB (Wu, Wu & Yuan, 2019). Kim and his colleagues first devised a scale for measurement of VWGB. The scale consists of six items measured on six point Likert scale (Kim, Kim, Han, Jackson, & Ployhart, 2017). Several researches done on VWGB have mostly used this scale for measurement.

#### **Similarities among the three constructs**

The three constructs of pro-environmental behavior at work which have been discussed in this paper are similar in nature. Previous researches on each one of

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them show that the constructs are similar in the context of their definition. All three of constructs talks about green behavior which are voluntary. EGB though has divided itself into required and voluntary EGB, mostly measures and talks about behavior which are voluntary in nature. Previous researches on three constructs also show that they are very close to organizational citizenship behavior (OCB) (e.g., Lavalle, 2010; Paille & Boiral, 2013). The construct OCB-E have been section of OCB, voluntary EGB being a part of OCB and VWGB have been thought as functional approach to OCB. The three constructs are also very similar to corporate social responsibility or the perception of it. As mentioned earlier, research on the relationship between corporate social responsibilities (CSR) with each of the variable show a positive impact on each. VWGB is seen as functional approach to CSR; companies' CSR have a positive impact on OCB-E and engagement in CSR initiative has an effect on EGB. Studies also show that all three constructs have significant positive relationship with green display rules. Similarities among the three variables can also be found with its relationship between managers' role in allowing to carrying out in this types of behavior. The three variables not show their similarities in context of organizational variables but they are also comparable in its relation with dispositional factors like personal and social norms. So, it can be observed that three constructs are similar to each other in its conceptual framework and it is also akin in aspects with its relationship with other prominent organizational variables like OCB, CSR engagement and corporate greening and dispositional characteristics determining the variables.

#### **Need of the study**

It is very essential for researcher to know different perspective of any construct. If a researcher goes through the three different constructs then they would be able to better judge which initiative should be used for their research. The present research focuses on comparing three major initiatives that have been taken by the researchers to study pro-environmental behavior at workplace. The present research also finds out the similarities among the construct and to propose a comprehensive variable which can be used by future researchers to measure pro-environmental behavior at workplace. Very few previous researches have been done to explore the difference and similarities between pro-environmental behaviors at workplace. The present research opens up the possibilities of a

comprehensive variable for measurement of the pro-environmental behavior at workplace. If required, with proper deliberation and analysis the researcher can do further analysis for a comprehensive operationalization of measure.

#### **Present research**

Extensive researches have been done in this three constructs and has been extremely useful for measuring the pro-environmental behavior at work. The research on each constructs strikes several similarities among the constructs. In the present researcher it has been tried to find out if there is any similarities among the constructs that measure pro-environmental behavior at work. In the present research other than doing extensive review of literature; three measurement scales of each construct have been used. Factor analysis had been done on three measurement scale and then comparison had been done. The factor analysis have been done to find out the similarities among the items of each scale and look for a comprehensive measure to measure pro-environmental behavior at workplace.

#### **Method**

**Participants:** The total numbers of participants are 234 with mean age of 28.56 years (SD of 3.9) with age range of 21 years to 40 years. The numbers of male participants were 182 and numbers of female participants were 49 and numbers of transgender participants were 3. 565 of the population were married and rest was unmarried. All the participants were working in chemical manufacturing companies and were posted at managerial position. The data was collected from an online survey distribution to 410 employees working in Indian chemical manufacturing company in city of Kolkata.

**Design and Procedure:** The data was collected from an online survey distribution to 410 employees working in Indian chemical manufacturing company. The survey was conducted with help of Human Resource Department of the companies. The chemical manufacturing companies of the city was shortlisted and human resource department was contacted. Permission of Human Resource Development of the company was taken and employees were sent link of the survey. Only those employees who were at managerial position were shortlisted and sent the link. The questionnaire containing three scales were mailed. After a week of time only 300 questionnaires came back. Out of which 234 questionnaires was found to be complete and could be used for analysis. The

response rate was 57%. Proper analysis was done for completed questionnaires. The questionnaire consisted of demographic questions like age, gender and educational qualification.

**Measure used for OCB-E-** The scale consists of three items. The response of the scale is measured in five point Likert scale (totally disagree to totally agree). The scale was developed by Boiral and Paille, 2012. The composite reliability was found to be 0.96 (Boiral et al., 2015). The example one of the item is “In my daily activities, I weigh the environmental impact of my personal actions”.

**Measure for VWGB-** The scale consists of six items. The response of the scale is measured in six point Likert scale (never to always). The scale was developed by Kim et al. (2017). The Cronbach alpha for the scale was reported to be 0.79. An example of an item from the scale is “I avoid doing unnecessary printing to save papers”.

**Measures for EGB-** The scale consists of three items. The response of the scale was measured in five point Likert scale (never to always). The scale was developed by Norton et al (2014). The Cronbach alpha of the scale was reported to be 0.97. The scale consists of two subscales- required EGB and voluntary EGB. The present study used only the voluntary EGB subscale. The items in the scale were modified. An example of an item from the scale is “I took a chance to get actively involved in environmental protection at work”.

### Results

Factor analysis was done on the three scales. Oblique rotation was used to analyze the data. The result showed no significant correlation among the factor components. The data was then further analyzed using varimax rotation. The Bartlett test of sphericity and Kaiser-Meyer-Olkin were both found to appropriate. The value of KMO test was .731 and Bartlett test of sphericity was found to be significant. The result of the analysis is given in table 1. The scree plot of the analysis is shown in Figure 1.

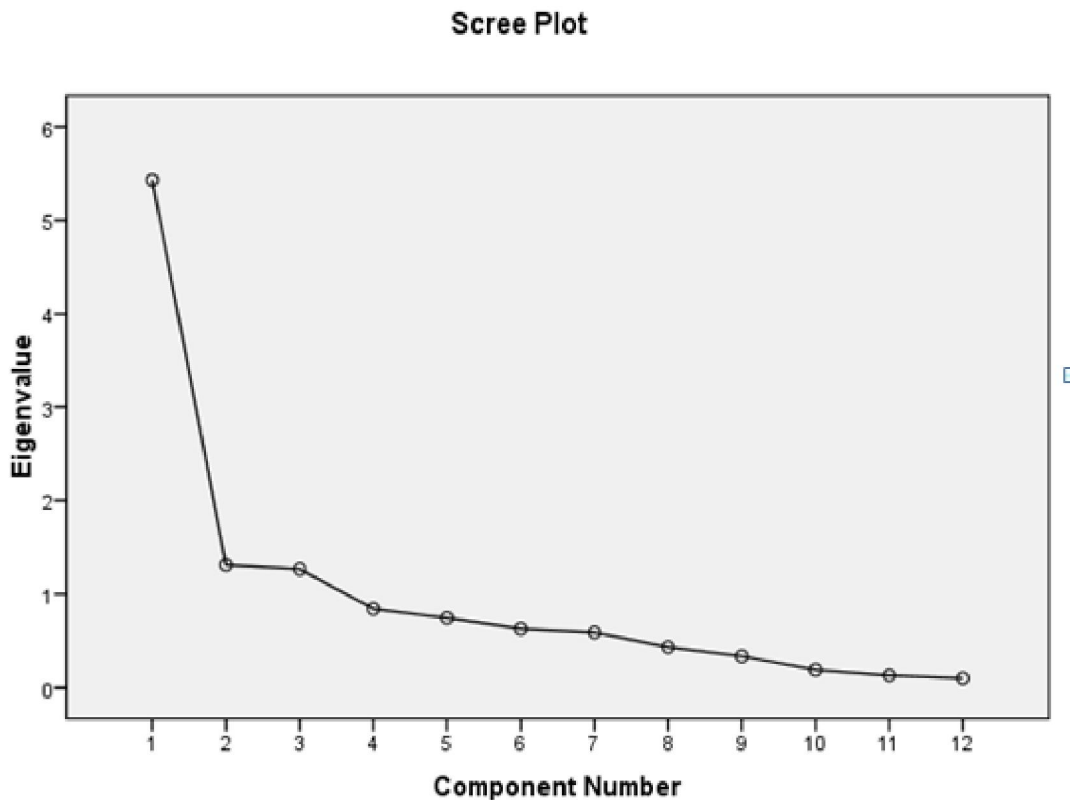


Figure 1: Scree plot done from factor analysis of the three measurement scales of three constructs

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**Table 1: Rotated component matrix for each items of the scale used (Varimax rotation)**

ITEMS OF DIFFERENT SCALE	FACTORS		
	1	2	3
I avoid doing unnecessary printing to save papers(VWGB1)	--	.745	--
I use personal cups instead of disposable cups(VWGB2).	.562	--	--
I use stairs instead of elevators when going from floor to floor in the building(VWGB3).	--	--	.632
I reuse papers to take notes in the office (VWGB4)	--	.826	--
I recycle reusable things in the workplace(VWGB5)	--	.676	--
I sort recyclable materials into their appropriate bins when other group members do not recycle them (VWGB6).	--	--	.844
In my daily activities, I weigh the environmental impact of my personal actions (OCB-E 1).	.559	--	--
I propose new practices that improve my facility's environmental performance (OCB-E 2).	.581	--	--
I perform voluntary environmental actions and initiatives in my daily activities (OCB-E 3).	.629	--	---
I took a chance to get actively involved in environmental protection at work( EGB1)	.791	---	---
I took initiative to act in environmentally-friendly ways at work (EGB2)	.864	---	---
I did more for the environment at work than I was expected to (EGB3).	.843	---	---

The result shows that on factor analysis of the items of three different constructs lead to formation of three factors. From the results of factor analysis it can be seen the three constructs have formed same constructs. The items under each factor are shown in tabulated format in table 2

**Table 2: The factors and respective items**

Factor	Items
Daily pro-environmental activity (Factor 1)	I use personal cups instead of disposable cups (VWGB2).
	In my daily activities, I weigh the environmental impact of my personal actions. (OCB-E 1).
	I propose new practices that improve my facility's environmental performance. (OCB-E 2).
	I perform voluntary environmental actions and initiatives in my daily activities. (OCB-E 3)
	Today, I took a chance to get actively involved in environmental protection at work. (EGB1)
	Today, I took initiative to act in environmentally-friendly ways at work (EGB2)
	Today, I did more for the environment at work than I was expected to (EGB3).
Lesser consumption of resources (Factor 2)	I avoid doing unnecessary printing to save papers(VWGB1)
	I reuse papers to take notes in the office (VWGB4)
	I recycle reusable things in the workplace(VWGB5)
Alternative pro-environmental steps (Factor 3)	I use stairs instead of elevators when going from floor to floor in the building (VWGB3).
	I sort recyclable materials into their appropriate bins when other group members do not recycle them (VWGB6).

Three factors have come out from factor analysis and can be identified as daily pro-environmental activity, lesser consumption of resources and alternative pro-environmental steps. The result of the study clearly shows that first factor (daily pro-environmental activity) that has come out from the factor analysis includes items from all the three scale. The first factor clearly shows that there is single construct which is being measured from items of OCB-E as well as EGB and items from VWGB. The second factor identified as lesser consumption of resources contains three items of VWGB scale. The third factor identified as alternative pro-environmental steps contains two items both belonging to VWGB scale.

### Discussion

Extensive studies done on each variable have been done which has been useful in measuring pro-environmental behavior at workplace. In the present research the similarities between the three major variables of pro-environmental behavior have been compared theoretically and then factor analysis has been done to see practical similarities among the three variables. The result of our present research clearly shows that the three constructs measures the same psychological variable. From result it can be clearly seen that first factor have items belonging to all the three scales. From the items that have loaded into single construct it can be seen that they form a single variable. If the constructs would have been different from each other, the factor loading for each scale would have been in different factors. The daily pro-environmental activity factor (first factor) includes all the items from both EGB and OCB-E and a single item from VWGB. This clearly shows that a same constructs is being measured when either of the variables is used. The lesser consumption of resources factor (second factor) which has come out after the factor analysis includes three items from the measurement scale of VWGB which attempts to measure the reusing behaviors of the employee. The alternative pro-environmental steps(third factor) includes two items from VWGB scale which seek to measure the alternative behavior that individual can do to save the environment.

Comprehensive tool can be used by the researcher for measurement of pro-environmental behavior comprising of all three scales. The number of items in the scale would be twelve and comprise of the three factors. The daily pro-environmental factor contains

items which are more related to individual action towards the environment. The 7 items of the first factor contains all the items of EGB scale, all the items of OCB-E scale and one item from VWGB scale. The item of VWGB scale that is included in the first factor talks about the daily action that employee does for betterment of the environment. The items of EGB scale loaded into the first factor because the items in the scale inquire about their action at workplace on a typical day at workplace. The items of OCB-E scale also talks about the daily activities done at the workplace. The seven items from three different scale talks about the varied daily environmental activities that an employee exhibit ranging from proposing new environmental policies to using personal cups. The second factor, lesser consumption of resources containing the three items reflects upon those behaviors which employees' exhibit to save the resources. The behavior stated in the items ranges from lesser use of paper for work to reusable things that are required in the workplace. The third factor reflects upon behavior which employee choose to do are for betterment of the environment. The employee does some alternative behaviors which will be better for the environment. The factor includes items with choices of doing environmental behavior instead of behavior which can be harmful for the environment.

The present research clearly shows that a single construct to measure pro-environmental behavior at work can be proposed instead of three different construct. The single construct should include the characteristics of all the three constructs. The new construct should include behavior which are both included as part of job description as well as those behaviours which are voluntary and initiated by the employee itself. Though the second and third factors which have come out of the factor analysis are from measurement scales of VWGB are different from other two variables; but it can be seen that they include specific behaviors like reusing and alternative behaviors. A single construct can be proposed which include characteristics of all three constructs and also include the specific behaviors which have not been measured by EGB as well as OCB-E but have been included in measurement scale of VWGB. A single measurement tool comprising of all the items of these three scales can be used to measure the pro-environmental behavior at workplace. The measurement tool comprising of all the items would be comprehensive in nature.

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#### Theoretical contribution and implication of the study

The present research contributes immensely towards the literature present in the context of the pro-environmental behavior at work. The present research compares among the three constructs which have been widely used. The present research proposes a single construct that can be made after amalgamating the constructs that have been used previously. The present research shows that even if the three constructs have different terminology but psychological constructs are clearly the same. Further research should be done to find out a comprehensive construct. The present research adds to the existing literature available as very few research have been done to see comparison between different variables used to measure same construct. The present research suggests to develop a comprehensive tool which could take care of these three different scales.

#### Future directions and limitation

The limitation of present study is only single measurement scales of each construct were used to collect data from the employees. The scale was particularly used taking into consideration the employees at managerial position from whom the data were collected. Future researchers can use the comprehensive scale comprising of all twelve items spread across the three factors.

#### Conclusion

Previous research on pro-environmental behavior have immensely talked about three different constructs- environmental green behavior, organizational citizenship behavior for environment and voluntary workplace green behavior. The present research compares the three constructs and concludes that a single construct can be formed which would be comprehensive. Thus, the present research contributes significantly to the literature of pro-environmental behavior at workplace.

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# Acknowledging Empty Nest Syndrome: Eastern and Western Perspective

Received: 14 November 2021

Accepted: 06 December 2021

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## Abstract

*Dorothy Canfield coined “Empty Nest” terminology in her book (Mothers and Children, 1914). Empty Nest is the phase that begins along with the contraction stage of the family life cycle in which children move out of their parental home to relocate either to a different city or country for educational and professional purposes. There are two sides to Empty Nest: some parents grow as individuals and as a couple after the contraction phase, while others struggle to adjust during this time. Therefore, when parents struggle to adjust to the contraction phase, they experience Empty Nest Syndrome. There is a stew of studies explaining the psychological and physical symptoms that predict the manifestation of Empty Nest Syndrome among parents. All the studies are from various parts of the world, with different perspectives and approaches to parenting and the Empty Nest Phase. Despite differences, the world has followed the same family pattern for generations. Hence, the objective of the present piece of paper is to analyse the extensive review of literature about different perspectives on Empty Nest Syndrome for a better understanding of the Empty Nest phase in the eastern and western world.*

**Keywords:** Empty Nest, Empty Nest Syndrome, Parents, Eastern and Western Perspectives.

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The family cycle is composed of different stages, each of which begins and ends with transitions and a wide spectrum of emotions. Changes in the family life cycle are inevitable; the desire to maintain the same status while simultaneously hoping for change are stress-inducing factors known as transitional or maturational crises, according to Scherz (1971). This paper focuses on the “Empty Nest” phase, which begins and ends with the departure of the family’s first and last child, respectively (Barber, 1989). Glick (1977), considered this phase as one of the most “dramatic change” in the family life cycle. Barber (1979, 1980, 1981) encountered the possible reasons for the children’s departure in his interview study, and the majority of the parents mentioned “marker” events such as higher education, marriage, and starting a new job. Besides which, according to Barber (1980), empty nest is associated with gradual changes encompassing independence rather than a specific event.

Launching of child is accompanied by a period of emotional distress, identity conflict, depression, guilt, anxiety, stress and loneliness known as “*Empty Nest Syndrome* (Mitchell & Lovegreen 2009, Bouchard 2014, Grover & Dang 2013). Empty Nest Syndrome

was first studied in the 1960s and 1970s. The existence of Empty Nest Syndrome has been proven by a plethora of evidence measured by life satisfaction, marital satisfaction, and overall happiness has been unsatisfactory (Axelson, 1960; Campbell, 1975; Lowenthal & Chiriboga, 1972; and Rollins & Feldman, 1970). The activity theory of ageing, which proposes that a person’s social self emerges through interaction with others, theoretically supports the Empty Nest Syndrome. The loss of intimate and regularly enacted roles reduces reaffirmation of the self-concept and affects role identities, resulting in demoralisation, isolation, and a decrease in subjective wellbeing. However, researchers have been polarized on whether the post-parental phase has a beneficial or detrimental impact on parents. Several studies support the idea, parents with limited social relations and/or involvement outside the home, and also those who became parents at a young age, professes a higher severity of Empty Nest Syndrome. (Bouchard, 2014; Grover & Dang, 2013; Harkins, 1978; Mitchell & Lovegreen, 2009). The empty nest, on the other hand, has been shown in studies to be a positive development experience for parents, with reconnection with spouses, enhanced self-care,

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and increased flexibility to engage in desired activities (Bouchard, 2014; Grover & Dang, 2013). Spence and Lonner (1971) revealed in their study that, despite the fact that all of the participants were in the transition to empty nest phase because their youngest child was about to graduate, all of them were approaching the same event, but each parent responded in a distinctive way. Some of the most significant differences in parental responses to the empty nest have been associated to gender.

### **Gender Differences: Empty Nest Syndrome**

Loneliness, depression, worry, stress, and dissatisfaction have all been identified in the literature as common reactions of women to the empty nest phase. However, little is known about how men respond to this change. The lack of research suggests that men may be unaffected by the departure of their children, or that it does not affect their mental health in the same way that it does for their wives.

One of the many reasons why the term “Empty Nest” has come to refer solely to women is that in society, mothers’ only identity is as Primary Care Givers, whose primary role is to care for their children, making the post-parental transition difficult and stressful for them.

In his study, Philips (1957) found that the loss of a mother’s intimate and frequently played role, i.e., as a primary giver, causes women to be more dissatisfied than men. William (1977) added that women who experiences the loss their maternal role, have been an overprotective mother, have been overly involved mothers, and have subordinated their needs to their children’s needs to feel satisfied are more prone to Empty Nest Syndrome. Bart (1971), Curlee (196), and Lurie (1974), found the empirical evidence that empty nest transition is indeed the most painful and dreadful period for women. On the contrary, According to Axelson (1960), Campbell (1975), Lowenthal and Chiriboga (1972) empirical evidence supporting Empty Nest Syndrome is inconsistent and that empty nest phase is equally satisfying for women than previous stages.

Back (1971) proposed that being free of family responsibilities may make it easier for mothers to acknowledge themselves; whereas for men departure of the children make them more dependent on the work role in which they have difficulty presenting their real image. In addition, there is some evidence that the transition is difficult for some them. Due to the men’s role of primary economic provider, they fail to take the advantage of the time to build relationship with their

children when they were still at home (Barber, 1980) the feeling of guilt is more painful which makes it difficult for the fathers to cope with this phase. Fathers who found the empty nest transition stressful were more likely to have fewer children, a higher caring and loving perception, and were mostly lonely due to strained marriages and feelings of neglect, as well as a lack of empathy and understanding from their wives (Barber, 1980).

Women are more expressive and better at articulating their emotions than men, according to Lowenthal and Chiriboga (1972), making it difficult for fathers to express their emotional distress.

One possible conclusion from these evidences is that Empty Nest Syndrome is not only associated to mothers; the transition to the empty nest can also have an impact on the subjective well-being of fathers. Furthermore, many studies have proposed that cultural factors and processes play a vital role in the meanings and experiences of significant life decisions and events (Goldscheider & Goldscheider, 1993, 1999). This paper will examine the cultural differences in Empty Nest Syndrome from an Eastern and Western perspective.

### **Cultural Differences: Eastern and Western Perspective**

Due to urbanisation, there is an increase in rate of immigration leading to increased diversity in culture. Every culture follows a different set of norms, value, obligations and expectations which highly shape the perceptions towards family system and relationships. (e.g., Goldscheider & Goldscheider, 1993, 1999). Mitchell and Lovegreen (2009) concluded that cultural background, socioeconomic status, and relational processes all affect the probability of reporting Empty Nest Syndrome.

Western parents place a high value on raising independent children. In the West, for example, it is usual for young children to sleep in a different bedroom, with teen moving out of the parents’ home once they reach the age of 18. South Asian parents, on the other hand, are more protective of their children. It is common in Indian families for children to live with their parents until they marry, and even after that, in family units.

Individualism and independence are regarded as admirable qualities in most Western societies. Parents in collectivist Eastern societies, on the other hand, expect obedience and cooperation from their children.

According to research, parents in more collectivistic cultures (e.g., Asian countries) have completely distinct emotional reactions, aspirations, or social schedules

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when it comes to their children's "proper" nest-leaving behaviour (e.g., Pyke & Bengtson, 1996). In familistic cultures, leaving home under the "right" circumstances (e.g., marriage vs. seeking independence) is more socially acceptable than in more individualistic cultures. In highly traditional ethnic eastern families, where some children (typically the eldest son) are expected to remain at home, intergenerational living may be a socially preferred living arrangement (for both cultural and economic reasons). However, research on how societal expectations of home leaving facilitate these experiences is limited to date, with the exception of some limited research on age norms and the purported "empty nest" syndrome (e.g., Mitchell & Lovegreen, 2009). Nest-leaving is constantly believed to impact parental identities (including self-concepts), roles, and responsibilities in Western cultures, and is generally reflective of a parent's achievement in bringing up independent children (Mitchell & Lovegreen, 2009). For parents, having an "empty nest" can mean more flexibility, recreation, and less daily emotional challenge and pressure. In contrast, in eastern cultures, children leaving home (especially in non-normative situations) may indicate a break - down of family ties and parents' inability to inculcate traditional cultural values, which can lead to anxiety and stress for these parents (Goldscheider & Goldscheider, 1999). In Western society, the empty nest transition is widely regarded as a normal thing. Parents generally expect their children to leave home, become independent, and successfully negotiate the new roles and status demands that come with this stage of life on a set of social timetables and expectations about when and how the pathways to adulthood should unfold. Violations of these expectations can have negative social, emotional, and psychological consequences for family members (Mitchell, 2007).

As a result of a stronger emphasis and tradition on multigenerational cohesiveness and co-residence, it is expected that parents from more family oriented cultures (e.g., eastern) may face greater emotional distress with nest-leaving than parents from western cultures.

#### **Discussion**

The impact of cultural diversity on Empty Nest Syndrome was analysed in this paper. Normative events linked to home leaving and the empty nest phases of adult development embedded within families have strong cultural dimensions. Empty Nest families in eastern countries are on rise. It is related to eastern

countries' overall economic environment, such as the accelerated process of urbanization and the imbalance of economic development. Rural population has established their careers in cities becoming urban dwellers leaving their parents behind in rural homes.

In India too change in socio economic scenario of the country has led to emergence & popularity of nuclear family system both in, rural and urban areas. Migration of younger generation in search of better opportunities has created a situation where older persons are compelled to live in their houses without their young family members. They feel isolated and alone in absence of their own adult children and grandchildren.

As majority of older persons had spent their active life in joint family, they find it very difficult to live alone or with their spouses alone. However, a trend of living in isolation, particularly in old age is emerging especially in metros. In general, elderly population has grown at large due to advancement of health care system and education. They face numerous physical, psychological and social role changes that challenge their sense of self and capacity to live happily. A study in Wuhan (China) showed that, due to the change in society there is a rise in the numbers of empty nesters. The researchers (Zhe & Jun, 2016) exhibited the rise in depression among empty nesters followed by several studies indicating the association between empty nester mothers and depression (Zhai et. al., 2015; Zang et. al., 2020). There are number of studies available in Eastern and Western culture but there is dearth of literature in Indian Context because majority of the parents are in denial due to the lack of knowledge about Empty Nest Syndrome.

An Indian study on Empty Nest mothers reveals that mothers high on Empty Nest Syndrome came out high on loneliness, depression and low on resilience (Sinha et. al., 2017). The studies on Empty Nest syndrome can be traced back to the 1960s, indicating that western countries began experiencing Empty Nest syndrome in the 1990s. Guthrie (2020) indicated the increase in the number of women living alone, and a reduction in number of households in which parents are living with children. On the average, couples today experience the launching of their last child during middle age and can expect to remain in the empty-nest period for at least thirteen years and often much longer (Glick 1997). The empty nest experience can be an arousal roller-coaster, repeatedly hurtling you from the depths of depression to the pinnacles of unfettered joy. This

trek might take 3 months, it might take 3 years, it's different for every parent (Schaffer and Wasserman 1991). Because of permissive parenting and individualistic society in Western countries, children are prepared to make their own choices, make their own life decisions, and independent at a young age. Although, parenting in eastern and western cultures is diametrically opposite, parents in both cultures are affected by Empty Nest Syndrome. Even though there are numerous studies explaining the factors that lead to Empty Nest Syndrome and the effects it has on parents' mental health, only a few are intervention-based (Kaur & Kaur, 2021). The study by Mehrabi et al. (2021) reported that using intervention can be one of the efficient ways to manage Empty Nest Syndrome.

The majority of the time, parents find it difficult to get out of this phase due to a lack of knowledge about

empty nest syndrome, particularly, in India, where the family structure has shifted from joint to nuclear. This is an issue that is being overlooked, and parents are bearing the brunt. As a result, finding therapeutic ways to help parents cope with the emptiness phase is critical.

### Conclusion

The Empty Nest Syndrome has become a worldwide phenomenon. This is a phase that every family with children goes through. However, it can be difficult for parents to cope with such a difficult situation, particularly in India, where people are still unable to adjust to this empty phase due to deeply ingrained family values and a lack of knowledge. As a result, it's critical to hold workshops to raise awareness about family structure and coping mechanisms, as well as to train counsellors to deal with parents who are experiencing emptiness so that they can enjoy their lives because they have earned it.

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# Confluence of *Triguna* and PERMA Model: An Empirical Validation

Received: 22 November 2021

Accepted: 06 December 2021

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## Abstract

*Indigenous Vedic perspective of Triguna delineates the tri-dimensional classification of personality (sattvika, rajasika, and tamasika), whereas Seligman's PERMA model describes that flourishing emerges from five components of wellbeing: positive emotion (P), engagement (E), relationships (R), meaning (M) and accomplishment (A). The present study aims to examine the relationship between Triguna (i.e. sattvika, rajasika, and tamasika) and five components of PERMA model. Vedic Personality Inventory and the PERMA Profiler were administered on 60 participants (males=30, females=30) aged 18-45 years. The findings indicated that sattvika was positively correlated with all the five components of PERMA, whereas rajasika was negatively correlated with positive emotion, relationships, meaning and accomplishment components and tamasika was negatively correlated with all five PERMA components. The stepwise multiple regression analysis revealed that sattvika positively explained 45% variance in positive emotion, 20% in relationships, 11% in meaning and 26% in accomplishment. The tamasika negatively accounted for 6% variance in positive emotion and 31% in meaning.*

**Keywords:** Triguna, Positive emotion, Engagement, Relationships, Meaning, Accomplishment.

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In the present time, individuals, organizations and policy makers are focusing those attributes that enhance human flourishing and reduce mental disorders such as depression, anxiety, stress, hopelessness etc. Evidences reveal that flourishing plays an innovative role to bring numerous advantageous outcomes such as better physical and mental health, longevity, good relationships and success (e.g., Diener & Chan, 2011; Hupport, 2009). Moreover, human flourishing improves kindness, compassion, optimism and other positive attributes. For the elevation of flourishing in human nature it is the essential to explore that how personality determines to the vital components of flourishing.

Psychologists have used different models and theories for the conceptualization of personality. These models and theories give an explanation of human nature. Ancient Indian Philosophical schools such as *Samkhya Yoga*, *Vedanta* and *Buddhism* and medical text *Ayurveda* conceptualized personality using the term *Triguna* (i.e. *sattva*, *rajas* and *tamas*). Many Indian and western scholars have tried to convert this ancient knowledge of personality into the modern

context of psychology (Jha, 2009). It is described in medical scripture *Ayurveda* that a living being is combination of *Panch Mahabhutes* (five elements) including *Akasa* (ether), *Vayu* (air), *Tejas* (fire), *Ap* (water), and *Prithvi* (earth) and this combination produces biological components *vat*, *pitt* and *cough* and psychological components *sattva*, *rajas* and *tamas* and these components influence body, mind, their ingredient and equivalent behavior pattern with spiritual facet (Shilpa & Murthy, 2011). In divine text *Gita*, lord *Krishna* explained that living being is the combination of three innate qualities namely *sattva*, *rajas* and *tamas*, in which *sattva* is the symbol of goodness, *rajas* is the indicator of passion and *tamas* is the indicator darkness (Krishna, 2002). On the other hand, *Samkhya* philosophy hypothesizes two phenomenon *Purusha* (awareness) and *Prakriti* (nature). *Purusha* creates inner personality, whereas all other things in the universe are created by *Prakriti*. All physical and psychological factors including mind is also created by *Prakriti*. *Prakriti* is constituted by three *gunas*- *sattva*, *rajas*, and *tamas*. These three *gunas* exist in everyone but their magnitude may differ

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from person to person. On the basis of above consideration, personalities are classified into three categories – *sattvika*, *rajasika* and *tamasika* (Rao, 1966).

*Sattvika* are disciplined and have mental equanimity (Wolf, 1998); show creativity, confidence, modesty and are free from egoism (Ganguli, 2005); focus on present (Kumar, 2007); have no desire for the fruits of their actions (Theodore, 2010); endeavor with eagerness and determination without thinking about success or failure, realize difference between expected and neglected, manifest calmness, satisfaction, compassion, and tranquility and have control over one's actions (Rao & Paranjpe, 2016, p. 156). *Rajasika* feel dissatisfaction, envy from others and have materialistic tendency (Wolf, 1998); show hesitancy and doubt (Ganguli, 2005); focus on future (Kumar, 2007); have restlessness and greed for the fruits of their actions (Theodore, 2010); work with great effort to satisfy their longing for worldly things, overwhelmed by joy and sorrow, do not understand the difference between prescribed and prohibited, enjoy bodily comfort and sensual pleasure, and involve in attaining worldly propensity such as wealth, career and prestige (Rao & Paranjpe, 2016, p. 156). *Tamasika* have mental imbalance, anger, frustration, and feeling of helplessness (Wolf, 1998); reveal heedlessness in their character (Ganguli, 2005); focus much on the past (Kumar, 2007); are lazy and undisciplined (Theodore, 2010); adopt immoral pathway to fulfill their desire, manifest laziness, fear, grief, depression, and arrogance, inclined toward sleep, intoxication, violence, and gambling that leads the soul toward gloom and ignorance (Rao & Paranjpe 2016, p. 156-157). As described above, these three *gunas* are always present in all beings and determines their temperament and emotions. These *gunas* generate different kind of predispositions and also shape one's wellbeing and flourishing level.

Flourishing is an emotional state of wellbeing that emerges inside the mind. It is not merely the absenteeism of melancholy but also it is an established gratification for life and being in love for living. Words "flourishing", "happiness" and "wellbeing" are usually used reciprocally in the literature and we also used these words reciprocally in the present study. Ancient Indian writings such as *Vedas* and *Upanishad* have

conceptualized flourishing as *ananda*. The *Vedic* and *Upanishadic* seer and sages explained that everlasting (*nitya*) and eternal (*satya*) is the ultimate truth of universe. The personal aspect of ultimate truth of universe is called *Atman*. They recognized *Atman* as *satya* and *nitya* and recommended human being to perceive it as a way to get liberation from all kinds of difficulties and sufferings and to attain eternal gladness (*ananda*) which is characterized by the state of realization (Kiran Kumar, 2003). It is explained in *Taittiriya Upanishad* that happiness and wellbeing emerge from the spontaneous expression of *ananda* (Kiran Kumar, 2003). In this way concept of flourishing and wellbeing has been considerably defined in ancient Indian scriptures. Western psychologist delineated that flourishing is vigorous state of mind that emerges from functioning well in various psychosocial domains. So, they realized that multidimensional models are necessary to properly understand the concept of flourishing and wellbeing. Ryan & Deci (2001) outlined wellbeing in terms of hedonic and eudaimonic domains. Hedonic domain describes emotion, whereas eudaimonic domain focuses on thriving and related wellbeing constructs. Keyes (2002) explained that eminent emotional, psychological and social wellbeing is crucial for flourishing. Huppert & So (2013) described that 10 components may helpful in the elevation of flourishing namely competence, emotional stability, engagement, meaning, optimism, positive emotion, positive relationships, resilience, self esteem and vitality. These are the contradictory characteristics of the symptoms of depression and anxiety. Seligman (2011) focuses on the five components of flourishing in PERMA model: positive emotion (predisposition to feel contentment and perception of life in positive paradigm), engagement (a state of flow or psychological connection with an specific activity), relationships (feeling of love to others and supported by others), meaning (sense of living a purposeful life and involvement in relevant activities) and accomplishment (feeling of achievement). Each PERMA element is helpful in the enhancement of flourishing.

Researchers have been attempted to examine that how these three *gunas* influence the level of wellbeing and flourishing. Bandhyopadhyay (2020) reported that performance of *sattvic-rajsic* group was better in their examination and sufferings of this group were minor

in the context of divine entitlement, divine struggle and psychological distress. Dominance of *sattva guna* results in self-compassion and human flourishing (Verma & Tiwari, 2017). Sharma et al. (2016) reported that *sattva guna* was found as a strong predictor for wisdom and psychological well-being. Khanna et al. (2013) found positive correlation between *sattva guna* and well being indicators, whereas *rajas* and *tamas* were negatively correlated with wellbeing indicators. Sharma et al. (2012) compared clinical sample and community sample and reported that dominance of *sattva guna* was found in community sample and *rajas* and *tamas gunas* were dominant in clinical sample. *Rajasic* tendency promotes psychological and behavioral problems, whereas *sattvic* tendency has protective influence on personality (Das & Gopal, 2009). Kapur et al. (1997) reported that dominance of *sattvic* temperament was found in normal children in comparison to psychologically disturbed children.

On the basis of above description, it is clear that considerable studies has been done to explore the influence of *Triguna* on mental health, wellbeing, life satisfaction, wisdom, academic achievement etc. but there occur a requirement to examine that how personality orientations as illustrated in ancient Indigenous literature determine those components of human nature that are helpful in the enhancement of flourishing as outlined in Seligman's (2011) PERMA model. The present study attempts to examine that how *sattvika*, *rajasika*, and *tamasika* personality orientations correlate and influence the all five PERMA components of flourishing.

### Objectives

1. To examine the relationship between three indigenous personality orientations (i.e., *sattvika*, *rajasika* and *tamasika*) and five flourishing components of PERMA model.
2. To explore the influence of three personality orientations on five PERMA components.

### Method

**Sample:** The sample consisted 60 participants (males = 30, females = 30) aged 18 to 45 years. All the participants were residents of two districts of Uttar

Pradesh. Their level of the education was intermediate, graduation and post graduation.

### Measures

**Vedic Personality Inventory** was developed by wolf (1998) for the assessment of personality in Indian context. It contains 56 items in which 15 items are of *sattva*, 19 items are of *rajas* and 22 items are of *tamas*. Participants responded their responses on a seven point rating scale as Very Strongly Agree (6), Strongly Agree (5), Somewhat Agree (4), Neutral (3), Somewhat Disagree (2), Strongly Disagree (1), and Very Strongly Disagree (0). Reliability value ranging from  $\alpha=0.70$  to 0.90 has been obtained for three *gunas* of Vedic Personality Inventory.

**PERMA-Profiler** was developed by Butler & Kern (2016) to assess five components of flourishing of Seligman's (2011) PERMA model. The scale consists 15 items in which three items are for per PERMA component. Each item is completed by choosing a number on an 11 point scale ranging from zero to ten in which zero indicates immensely low level and ten indicates immensely high level. Reliability value ranging from  $\alpha=0.72$  to 0.90 has been obtained for five components of PERMA Profiler.

**Procedure:** The researchers met all participants personally. A brief introduction regarding the study was given. After their consent for the participation in the study, Vedic Personality Inventory and the PERMA Profiler were administered on them. After the completion of the data collection process, each data was scored. Pearson Product Moment Correlation and Stepwise Multiple Regression analysis used for the statistical analysis of data. SPSS version 20 was used in the data analysis.

### Results

The results of the study have been illustrated in two portions. The first portion describes coefficient of correlation and second portion reveals the findings of stepwise multiple regression analysis.

To find out the relationship between *Triguna* (i.e. *sattvika*, *rajasika*, *tamasika*) and all five components of PERMA, coefficient of correlation was computed and presented in Table 1.

Table 1: Coefficient of Correlation between *Triguna* and PERMA

PERMA	<i>Triguna</i>		
	<i>Sattvika</i>	<i>Rajasika</i>	<i>Tamasika</i>
Positive Emotion	0.67**	-0.27*	-0.52**
Engagement	0.18	0.06	-0.17
Relationships	0.45**	-0.09	-0.39**
Meaning	0.55**	-0.08	-0.55**
Accomplishment	0.51**	-0.09	-0.34**

Note: \*\*P<0.01, \*P<0.05

Result demonstrated that *sattvika* was positively and significantly correlated with four components of PERMA i.e. positive emotion ( $r=0.67$ ,  $p<0.01$ ), relationships ( $r=0.45$ ,  $p<0.01$ ), meaning ( $r=0.55$ ,  $p<0.01$ ) and accomplishment ( $r=0.51$ ,  $p<0.01$ ). However, *sattvika* was not found to be significantly related with engagement component. *Rajasika* was negatively and significantly correlated with only positive emotion ( $r=-0.27$ ,  $p<0.05$ ) component. But it was not found to be significantly related with four components of PERMA i.e. engagement, relationships, meaning and accom-

plishment. *Tamasika* was negatively and significantly correlated with four PERMA components i.e. positive emotion ( $r=-0.52$ ,  $p<0.01$ ), relationships ( $r=-0.39$ ,  $p<0.01$ ), meaning ( $r=-0.55$ ,  $p<0.01$ ) and accomplishment ( $r=-0.34$ ,  $p<0.01$ ), whereas no significant correlation was found between *tamasika* and engagement component.

After correlation, a stepwise multiple regression analysis was calculated to examine the effect of *Triguna* (i.e. *sattvika*, *rajasika*, and *tamasika*) on five PERMA components and presented in

Table 2: Personality as Predictors of Five PERMA Components

Criterion = Positive Emotion						
Predictors	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup>	Beta	<i>T</i>	<i>F</i>
			Change	B		
<i>Sattvika</i>	0.67	0.45	0.45	0.55	5.32**	47.93**
<i>Tamasika</i>	0.72	0.51	0.06	-0.27	-2.63**	29.84**
Criterion = Relationships						
<i>Sattvika</i>	0.45	0.20	0.20	0.45	3.80**	14.47**
Criterion = Meaning						
<i>Tamasika</i>	0.55	0.31	0.31	-0.38	-3.41**	25.55**
<i>Sattvika</i>	0.65	0.42	0.11	0.38	3.33**	20.55**
Criterion = Accomplishment						
<i>Sattvika</i>	0.51	0.26	0.26	0.51	4.56**	20.77**

Note: \*\*p<0.01, \*p<0.05

Table 2. Result showed that among the three types of personality two, i.e. *sattvika* and *tamasika* had been emerged as the significant predictor of positive emotion. *Sattvika* positively explained 45% variance in positive emotion and *tamasika* negatively explained 6% variance in positive emotion. Relationships component was significantly predicted by *sattvika* personality. *Sattvika* positively accounted for 20% variance in relationships. Result also demonstrated that out of three personality types two, i.e. *tamasika* and *sattvika* had been emerged as the significant predictor of Meaning. *Tamasika* negatively accounted for 31% variance in meaning and *sattvika* positively accounted for 11% variance in meaning. Accomplishment component was significantly predicted by *sattvika* personality. *Sattvika* positively explained 26% variance in accomplishment.

### Discussion

As described above, ancient Indian philosophical schools depicted personality in context of *Triguna* paradigm- *sattva*, *rajas* and *tamas* that are liable for the human temperament and behavior. These *gunas* work together and can never be isolate from one another. They also cannot give rise to any behavior without the support of other two. They compete and co-operate with one another. The dominant *guna* determines one's nature and personality while other two *gunas* are in the auxiliary position. The present study had two objectives, which have been discussed.

The first objective of the study was to examine the correlation between *Triguna* (i.e. *sattvika*, *rajasika* and *tamasika*) and all five components of PERMA. The findings of the present study unequivocally indicated that dominance of the *sattva guna* in personality facilitates the attainment of all five PERMA components in comparison to *rajas* and *tamas gunas*. The coefficient of correlations revealed that there were significant positive correlations among the scores of *sattvika* and four PERMA components which enhance flourishing level namely positive emotion, relationships, meaning and accomplishment. Conversely, negative correlation existed among the scores of *rajasika* and four components of PERMA i.e. positive emotion, relationships, meaning and accomplishment. *Tamasika* exhibited significant negative correlations with the score of four PERMA components namely positive emotion, relationships, meaning and accomplishment.

The second objective of the study was to examine effect of *Triguna* personality orientations on five PERMA components. Result of the regression analysis demonstrated that out of all five components of

PERMA four, i.e. positive emotion, relationships, meaning and accomplishment were significantly and positively predicted by *sattvika*, whereas two components of PERMA, i.e. positive emotion and meaning were significantly and negatively predicted by *tamasika*. *Rajasika* had not been emerged as a significant predictor for any PERMA component.

In essence, it can be contend that the role of the *sattvika* personality is more conducive in achievement and continuance of PERMA components which are helpful in the intensification of flourishing whereas, *tamasika* plays a discouraging and adverse role in the acquisition and maintenance of flourishing components. These differences occur due to the differences between nature and characteristics of *sattva guna* and *tamas guna*. It is explained in *Gita* (Chapter-XIV, Shlok-6), that *sattva guna* cultivates joy and purity, binds the mortal being with affection to knowledge and happiness, makes soul free from anger, frustration, agony, arrogance, longing, selfishness and envy and enhances generousness and nobility (Rastogi & Kewalramani, 2010). *Sattva guna* exhibits positive correlation with seven components of wellbeing namely self acceptance, positive relation with others, self development, satisfaction with life, purpose in life, autonomy and environmental mastery (Rastogi, 2004). Self compassion and human flourishing determine by *sattva guna* and *tamas guna*. People who have dominance of *sattva guna* reveal higher mean score on self-compassion and human flourishing and their components in comparison to people who have dominance of *tamas guna* (Verma & Tiwari, 2017). *Tamasika* have fear, sorrow, low spirits (Kejriwal & Krishnan, 2004). *Sattvika* are self-controlled and inclined towards humanity (Kapadia, 2004). Hence, findings of the present study encourage the findings of the previous investigations in this area and *Vedic knowledge* that *gunas* play relevant role in shaping and maintenance of human flourishing. *Sattva guna* cultivates the components of flourishing in human nature, whereas *rajas* and *tamas* influence negatively to the components of flourishing.

### Conclusion

On the basis of above discussion it can conclude that *sattva guna* and *tamas guna* play important role in determining the components of PERMA which influence the flourishing level of participants. The scores on *sattvika* demonstrated significant positive correlation with the four PERMA components i.e. positive emotion, relationships, meaning and accomplishment, whereas

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*rajasika* scores revealed significant negative correlation with only one PERMA component i.e. positive emotion, whereas no significant correlation exhibited between *rajasika* four PERMA components namely engagement, relationships, meaning and accomplishment. Conversely, the scores on *tamasika* demonstrated significant negative correlations with four PERMA components namely positive emotion, relationships, meaning and accomplishment. The scores on the *sattvika* significantly accounted for variance in the scores of positive emotion, relationships, meaning and accomplishment. The scores on the *tamasika* significantly accounted for the variance in the scores of positive emotion and meaning.

**Limitations and Implications:** There are some limitations of the present study. The study was conducted on a small sample. Moreover, sample was selected from a small area. So, the findings of the study may not be generalized to the people of other areas. Except these limitations there are some implications of the present study. It is a specific attempt to examine

the confluence of Indian approach of personality i.e. *Triguna* with popular western approach of flourishing-PERMA. The study also attempted to investigate the influence of three personality orientations on five PERMA components. The study has some practical implications also. Study provides an insight that how *sattvika* personality promotes those components that are helpful in the enhancement of human flourishing. Human flourishing has protective influence on health and longevity. It develops better understanding for the use of one's intellectual capacities. Moreover, flourishing promotes compassion, cooperation, kindness and other positive attributes. Thus, study provides an understanding that dominance of *sattva guna* in personality results in many excellent outcomes.

### Acknowledgements

The authors acknowledge all the participants for their assistance in study.

### Conflict of Interest

The authors have no conflict of interest to disclose.

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# Prevalence of Anxiety, Depression, and Stress among Nepalese Youth Population during COVID-19: A Cross-Sectional Study

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Received: 17 November 2021

Accepted: 07 December 2021

## Abstract

The novel coronavirus presents an unprecedented impact on physical as well as global public mental health. Younger people are vulnerable to negative psychological consequences during the Coronavirus disease (COVID-19) pandemic. This study aimed to identify the prevalence of anxiety, depression, and stress among the younger Nepalese population during the COVID-19 pandemic. Furthermore, it aimed to examine sociodemographic predictors of anxiety, depression, and stress. A quantitative cross-sectional survey was conducted through online platforms. Three hundred-one (301) participants of age group 16-40 years filled the validated Anxiety, Depression, and Stress Scale (ADSS) form between 5<sup>th</sup> October 2020 to 5<sup>th</sup> December 2020. The total prevalence of anxiety, depression, and stress in our study population was 46.5%, 50.6%, and 56.2%, respectively. Anxiety, depression, and stress all were predominant among the age group of 16-24 years, female population, those living in rural areas, and respondents with undergraduate education levels. Moreover, depression was found to be higher among tribal ethnicity, married women, and respondents with the perceived defect. Binary logistic regression analysis showed females (odds ratio (OR)=1.64; 95% CI: 0.99-2.17) and undergraduate education levels (OR=4.246; 95% CI: 1.44-12.53) were independently associated with anxiety; tribal ethnicity respondents (OR=2.22; 95% CI: 1.31-3.74) showed higher rate of depression and the age group 16-24 years (OR=0.34; 95% CI: 0.12-0.95) were found to have increased stress level.

The Nepalese youth population showed a high prevalence of anxiety, depression, and stress. These findings suggest that psychological support programs are needed urgently to promote the psychological well-being of Nepalese youth. Also, future longitudinal studies should be conducted with an adequate sample size to explore the long-term mental health impact of COVID-19 among the youth population.

**Keywords:** Anxiety, Depression, Stress, Nepalese Youth, COVID-19, Culture

The novel pandemic that began in December 2019 from Wuhan presents a detrimental effect on people's livelihood and health worldwide (Banna et al., 2020; Lancet, 2020; Zheng, 2020). The Covid-19 was declared as public health emergency of international importance by the World health organization (WHO) on 30th January and later as a pandemic on 11th March 2020 (Mayer & Lewis, 2020; Sharma, Ortiz, & Sharma, 2020).

Apart from the adverse effect on physical health, this pandemic has negatively affected the global public mental health (Salari et al., 2020; Vindegaard & Benros, 2020). Mental health impacts like anxiety, fear, guilty, nervousness, helplessness, emotional breakdown, stress, and depression have been observed at individuals, community, national and international levels during this pandemic (Zheng, 2020; Zhou, 2020). Recently before the pandemic, the prevalence of mental health issues is increasing and is the leading

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cause of disability (Organization, 2001; Vigo, Thornicroft, & Atun, 2016). This pandemic has further worsened mental health-related disability (Lunsky et al., 2021; Meagher, 2021; Vindegaard & Benros, 2020).

Studies have shown that anxiety, depression, and stress are the most common reactions to the novel pandemic (Krishnamoorthy, Nagarajan, Saya, & Menon, 2020; Rajkumar, 2020). During this pandemic, systematic reviews reported the prevalence of anxiety, depression, and stress ranged from 21.1% to 41.3%, 21.7% to 34.31% and, 21.5 to 37.4%, respectively (Hossain et al., 2021; Necho, Tsehay, Birkie, Biset, & Tadesse, 2021; Salari et al., 2020). Studies have identified the vulnerable populations being care providers, children and adolescents, younger and older adults, the elderly, health care workers, and people with underlying health conditions (Chaturvedi & Pasipanodya, 2021; Egede, Ruggiero, & Frueh, 2020; Rajkumar, 2020). But, a recent multi-country cross-sectional study conducted including six Middle-East countries involving only the young population revealed the prevalence of anxiety, depression, and stress is 40.5%, 57%, and 38.1%, respectively, at the time of COVID-19 (Al Omari et al., 2020). Moreover, the global cross-sectional survey reported that younger people were more susceptible to anxiety, depression, and stress during this time (Varma, Junge, Meaklim, & Jackson, 2020).

However, the threshold to define the youth or young age is non-identical and different countries have adopted their own standards. The United States and WHO determined the age of youth between 15-24 years (United Nations; WHO). Whereas, Nepal National youth policy 2015 has determined the age group of 16 - 40 years as the youth age (Nepal Government, 2015).

The pandemic-related stressors such as undetermined trends of the COVID-19, worried about contracting the disease, altered livelihood activities and lifestyle, temporary closed down schools and universities, and decreased income may have contributed to poor mental health among youths (Al Omari et al., 2020; Chaturvedi, Purohit, & Verma, 2021). In addition, some researchers reported gender, age, internet use time, living status, marital status, religion, ethnicity, and social support as socio-demographic variables related to mental health during

this period (Al Omari et al., 2020; Hou, Yu, & Lan, 2020; Lawal, Alhassan, Mogaji, Odoh, & Essien, 2020).

The risk factors for mental health illness in the Nepalese youth population include suddenly imposed lockdown, ineffective use of social media, lack of funding for mental health services, difficulty in coping with work/student life, and incomplete recovery from the 2015 devastating earthquake (Sharma, Reina Ortiz, & Sharma, 2020). Previous studies conducted in Nepal were limited to determine the prevalence of stress, anxiety, and depression only in a handful group of the population like healthcare workers, fever clinic attendants, students, or randomly among the general public (Dangal & Bajracharya; Devkota et al., 2020; Gautam et al., 2020; R. Sharma et al., 2020; Shrestha et al., 2020). Even though Nepalese youth people constitute a sizeable portion of the total population, play the lead role in the economic development of the country, and are highly vulnerable to mental health disorders (Sharma et al., 2020), the prevalence of mental health problems like stress, anxiety, and depression has not been explored yet in this population. Early identification of the most common mental health problems like anxiety, depression, and stress would help to remove an enormous barrier created by mental health-related stigmatization and discrimination in Nepalese society. Moreover, spotting mental health issues in this population would create an opportunity for early intervention and prevent more serious mental health disorders in the future. Therefore, this study aimed to identify anxiety, depression, and stress among the young Nepalese population during the COVID-19 pandemic. Furthermore, it aimed to examine socio-demographic predictors of anxiety, depression, and stress.

## **Method**

**Participants and Procedure:** This quantitative cross-sectional study was designed as a web-based survey to avoid the possibility of COVID-19 transmission by face-to-face interaction. The structured Google form included an informed consent form, demographic information, and the ADSS questionnaire. The Google form was uploaded to closed social media networks of youth-related organizations and forwarded to the personal email of prospective participants. The data collection took place from 5th October 2020 to

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5th December 2020. Youth respondents aged 16-40, as described by Nepal national youth policy 2015, were included in this study. Initially, 320 respondents voluntarily filled online forms during the predetermined time frame. Of these, 5.9% of participants who did not meet age criteria were excluded from the final data.

**Data Collection Tools:** The 48-item Anxiety, Depression, and Stress Scale (ADSS) was applied to collect the data (Singh, Pandey, Sandhya, & Amitabh, 2011). Participants had to respond to each item of scale as either yes or no. A score of zero was awarded for each 'No' response, and one was given for the 'Yes' response. The anxiety, depression, and stress subscales of ADSS consist of 19, 15, and 14 items, respectively, and a higher score indicates higher anxiety, depression, and stress level. Singh et al. (2011) have labeled the anxiety as normal (0-3), mild (3-5), moderate (5-9), and severe (above 9); the depression as normal (0-2), mild (2-4), moderate (4-9) and severe (above 9); and the stress as normal (0-4), mild (4-6), moderate (6-9) and severe (above 9) in the ADSS subscales. Nepali translated version of ADSS has good internal consistency (an alpha value of 0.86, 0.86, & 0.84 for anxiety, depression, and stress, respectively) and was used previously among the Nepalese population in the survey (Thagunna, Bhatta, & Adhikari, 2020).

The socio-demographic data collection in the online survey included information about age, gender, residence, education, marital status, family type, religion, ethnicity, and any perceived defect. The ethnicity was categorized into a tribal (ethnic group) and non-tribal (non-ethnic group), as classified by the government of Nepal. All 64 ethnic groups recommended in the National Census Survey 2011 (Mabuhang, 2014) indicated tribal groups while remaining are non-tribal. Perceived defect of participant (physical, social, & economic) was also obtained through a self-report statement.

### Data Analysis

The collected data from an online survey was entered and coded in Microsoft Excel. Some variable categories were merged during statistical analysis. Age was categorized as 16-24 and 25-40, while dichotomous family type (nuclear and extended) was used for analysis. All forms of perceived defects were merged, and education was categorized into two subclasses,

i.e., undergraduate and graduate or above. Data were expressed as computation of frequency, percentage, the mean, and standard deviation for anxiety, depression, and stress prevalence. The Chi-square test examined the differences in anxiety, depression, and stress for socio-demographic variables, while logistic regression assessed the prediction of these constructs of ADDS. Logistic regression was based on the presence or absence of symptoms of anxiety, depression, and stress. SPSS version 26 was used to perform statistical analysis.

### Results

The socio-demographic information about the respondents was presented in detail in table 1.

**Table 1: Socio-demographic characteristics**

Characteristics of the respondents (N=301)		
	n	%
Age (M= 23.31, SD=5.61, Range=16-40)		
16-24	210	69.8
25-40	91	30.2
Sex		
Male	127	42.2
Female	174	57.8
Residence		
Urban	158	52.5
Semi-Urban	81	26.9
Rural	62	20.6
Religion		
Hindu	264	87.7
Other	37	12.3
Family Type		
Nuclear	200	66.4
Extended	101	33.6
Ethnicity		
Tribal	114	37.9
Non-Tribal	187	62.1
Education		
Undergraduate	228	75.7
Graduate and above	73	24.3
Marital Status		
Unmarried	246	81.7
Married	55	18.3
Any defect		
Defect	68	22.6
No defect	233	77.4

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A total of 301 Nepalese youth (57.8% female and 42.2% male) participated in this study. The age of respondents was between 16 and 40 years, with a mean age of 23.31 years (SD=5.61). The majority of respondents were in the age group 16-24 (69.8%), Hindus (87.7%), from the urban area (52.5%), living in a nuclear family (66.4%), and belonged to non-tribal ethnicity (62.1%). In addition, the majority of participants was unmarried (81.7%), had undergraduate education degrees (75.7%), and had no self-perceived defect (77.4%).

**Table 2: Prevalence of Anxiety, Depression, and Stress**

		Frequency	Percentage	Mean	Standard Deviation
<b>Anxiety</b>	<b>Normal</b>	161	53.5	1.82	1.01
	<b>Mild</b>	58	19.3		
	<b>Moderate</b>	57	18.9		
	<b>Severe</b>	25	8.3		
<b>Depression</b>	<b>Normal</b>	149	49.5	1.93	1.07
	<b>Mild</b>	61	20.3		
	<b>Moderate</b>	55	18.3		
	<b>Severe</b>	36	12		
<b>Stress</b>	<b>Normal</b>	132	43.9	2.1	1.15
	<b>Mild</b>	64	21.3		
	<b>Moderate</b>	49	16.3		
	<b>Severe</b>	56	18.6		

The total prevalence of anxiety, depression, and stress in this study population was 46.5%, 50.6%, and 56.2%, respectively. More precisely, our result showed that more than half of the Nepalese youth population (53.5%) had no anxiety, 19.3% had mild, 18.9% had moderate, and only 8.3% had severe anxiety (M=1.82, SD=1.01). Furthermore, this study also demonstrated that 49.5% of respondents showed no depression, 20.3% mild, 18.3% moderate, and 12% severe depression levels (M=1.93, SD=1.07). Similarly, our study also revealed that 43.9 % of the Nepalese youth were stress-free, 21.3% had mild, 16.3% had moderate, and 18.6% had severe stress (M=2.1, SD=1.15), as shown in table 2.

Table 3: Respondents Characteristics on Anxiety, Depression and Stress

Factor	Anxiety		p-value	depression		p-value	Stress		
	Absent (%)	Present (%)		Absent (%)	Present (%)		Absent (%)	Present (%)	
Age	16-24	98(46.7)	112(53.3)	0.00*	87(41.4)	123(58.6)	0.00*	77(36.7)	133(63.3)
	25-40	63(69.2)	28(30.8)		62(68.1)	29(31.9)		55(60.4)	36(39.6)
Gender	Male	76(59.8)	51(40.21)	0.059	71(59.9)	56(44.1)	0.058	63(49.6)	64(50.4)
	Female	85(48.9)	89(51.1)		78(44.8)	96(55.21)		69(39.7)	105(60.3)
Residence	Urban	92(58.2)	66(41.8)	0.181	82(51.9)	76(48.1)	0.537	71(44.9)	87(55.1)
	Semi-Urban	41(50.6)	40(49.4)		40(49.4)	41(50.6)		37(45.7)	44(54.3)
	Rural	28(45.2)	34(54.8)		27(43.5)	35(56.5)		24(38.7)	38(61.3)
Religion	Hindus	137(51.9)	127(48.1)	0.138	128(48.5)	136(51.5)	0.346	114(43.2)	150(56.8)
	Other	24(64.9)	13(35.1)		21(56.8)	16(43.2)		18(48.6)	19(51.4)
Family Type	Nuclear	107(53.5)	93(46.5)	0.99	105(52.5)	95 (47.5)	0.143	89(44.5)	111(55.5)
	Extended	54(53.5)	47(46.5)		44(43.6)	57(56.4)		43(42.6)	58(57.4)
Ethnicity	Tribal	58(50.9)	56(49.1)	0.478	45(39.5)	69(60.5)	0.007*	46(40.4)	68(59.6)
	Non-Tribal	103(55.1)	84(44.9)		104(55.6)	83(44.4)		86(46)	101(54)
Education	Undergraduate	105(46.1)	123(53.9)	0.00*	98(43)	130(57)	0.00*	89(39)	139(61)
	Graduate and above	56(76.7)	17(23.3)		51(69.9)	22(30.1)		43(58.9)	30(41.1)
Marital status	Married	38(69.1)	17(30.9)	0.010*	37(67.3)	18(32.7)	0.004*	35(63.6)	20(36.4)
	Unmarried	123(50)	123(50)		112(45.5)	134(54.5)		97(39.4)	149(60.6)
Perceived defect	Defect	30(44.1)	38(55.9)	43.8	26(38.2)	42(61.8)	0.035*	24(35.3)	44(64.7)
	No defect	131(56.2)	102(43.8)		123(52.8)	110(47.2)		108(46.4)	25(53.6)

\*Statistically significant at p-value <.05

The anxiety, depression, and stress were significantly higher in the age group 16-24 compared to the age group 25-40 (53.3% vs 30.8%; 58.6% vs 31.9% and 63.3% vs 39.6% respectively) as shown in table 3. Compared to males, females had higher anxiety (51.1% vs 40.2%), higher depression (55.21% vs 44.1%), and higher stress levels (60.3% vs 50.4%). Respondents residing in the rural areas had proportionately higher anxiety (54.8%), depression (56.5), and stress (61.3%) than those living in the semi-urban and urban areas. Also, the prevalence of anxiety, depression, and stress was significantly higher among the respondents with undergraduate education level compared to graduate and higher education level (anxiety = 53.9% versus 23.3%, depression = 57% versus 30.1%, stress = 61%

versus 41.1%). The prevalence of depression was significantly higher among respondents with tribal than non-tribal ethnicity (60.5% versus 44.4%). Compared to married participants, unmarried people showed significantly higher anxiety (50% versus 30.9%) and depression (54.5% versus 32.7%). The prevalence of depression was significantly higher among the respondents with a perceived defect than without any defect (61.8% versus 47.2%).

#### Socio-demographic correlations of anxiety, depression, and stress

Binary logistic regression was computed to determine the prediction of anxiety, depression, and stress from socio-demographic factors/variables (Table 4)

Table 4: Results of binary logistic regression of Anxiety, Depression, and Stress

Variables	anxiety			depression			Stress					
	odds ratio	95% CI lower	95% CI upper	P-value	Odds ratio	95% CI lower	95% CI upper	P-value	Odds ratio	95% CI lower	95% CI upper	P-value
Age	1.392	0.498	3.888	0.528	0.409	0.144	1.16	0.093	0.337	0.12	0.948	0.039*
Sex	1.64	0.992	2.712	0.054*	1.575	0.949	2.614	0.79	1.48	0.901	2.428	0.121
Residence	0.694	0.361	1.321	0.264	1.056	0.544	2.048	0.872	1.056	0.548	2.033	0.871
Religion	1.428	0.657	3.102	0.369	1.464	0.679	3.16	0.331	1.269	0.606	2.658	0.528
Family Type	1.051	0.617	1.789	0.855	0.74	0.432	1.267	0.272	0.979	0.577	1.663	0.938
Ethnicity	1.295	0.777	2.158	0.321	2.217	1.313	3.745	0.003*	1.364	0.818	2.273	0.234
Education	4.246	1.439	12.528	0.009*	1.266	0.425	3.775	0.672	0.618	0.21	1.821	0.383
Marital status	0.831	0.371	1.864	0.653	0.758	0.343	1.671	0.492	0.57	0.269	1.21	0.143
Any defect	1.591	0.862	2.936	0.138	1.702	0.913	3.175	0.94	1.692	0.906	3.159	0.99

CI = Confidence Interval, Statistically significant at p-value <0.05

The results indicated gender and education were associated with anxiety, ethnicity was associated with depression, and only age was associated with stress. Further, females were 1.64 times more likely to experience anxiety than males (odds ratio (OR)=1.64; 95% CI: 0.99-2.17). Similarly, respondents with undergraduate education levels were four times more likely to experience anxiety than those with graduate and above education (OR=4.246; 95% CI: 1.44-12.53). Similarly, tribal ethnicity respondents were more than two times likely to be depressed than the non-tribal (OR=2.22; 95% CI: 1.31-3.74). Finally, the age group 16-24 were 0.34 times likely to be stressed compared to the age group 25-40 (OR=0.34; 95% CI: 0.12-0.95).

### Discussion

This study aimed to identify the prevalence of anxiety, depression, and stress among Nepalese youth and to examine socio-demographic features associated with these variables. Our results showed that nearly half of the respondents experienced some level of anxiety, depression, and stress. Anxiety, depression, and stress were higher among the age group 16-24 years, females, those living in rural areas, and undergraduate education level. Also, depression was reported higher among women, married, tribal ethnic respondents, and

respondents with the perceived defect. Further, we explored that gender and education were independently associated with anxiety, whereas ethnicity and age were associated with depression and stress, respectively.

There was a considerable degree of mental health impacts in our sample, with 46.5% anxiety, 50.6% depression, and 56.2% stress. A global survey targeting adults over 18 years of age from 63 different countries reported 59% clinically significant anxiety, 70% moderate level of depression, and 39% moderate level of stress (Varma et al., 2020). The difference in prevalence might be because of different data collection tools and difference in the age of sample. However, our study result is comparable to another online survey in Bangladesh involving the youth population aged between 24-39, which demonstrated 30.2% anxiety, 58.8% depression, and 57.5% stress (Banna et al., 2020). The reason might be because both Nepal and Bangladesh are developing countries in South Asia and have low resources to combat the consequences of the COVID-19 pandemic (De Guzman & Malik, 2020; Hossain et al., 2021). In this study, the prevalence of anxiety (57.3%), depression (58.6%), and stress (63.3%) were comparatively higher in the age group

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16-24 compared to a multi-country cross-sectional online survey in six Middle-East countries with an age group 15-24 which reported 40.5%, 57%, and 38.1% prevalence of anxiety, depression, and stress, respectively (Al Omari et al., 2020). This difference might be because of the difference in data collection time frame and tools.

Findings from this study revealed that gender and education were significant predictors of anxiety. This result is also consistent with previous studies (Al Omari et al., 2020; Verma & Mishra, 2020). The reasons might be the difference in socio-cultural factors like gender bias, societal role definition, and violence from intimate partners, and the internalizing nature of females compared to males in a patriarchal society like Nepal (Thagunna, Bhatta, & Adhikari, 2020). Furthermore, this study revealed education as a significant predictor of anxiety, reflecting consistency with earlier reports (Banna et al., 2020; Wang et al., 2020). Respondents with undergraduate education degrees experienced a significantly high level of anxiety than graduate level or higher education degree. Higher education attainment is related to a better sense of control and healthier habits for prevention compared to less educated people (Raghupathi & Raghupathi, 2020).

This study found ethnicity as predicting factor of depression. The tribal group (minority ethnic population in Nepal) experienced a higher grade of depression in this study. This result is in tune with COVID-19 related studies reporting negative mental health impacts on ethnic minorities (Proto & Quintana-Domeque, 2021; Smith, Bhui, & Cipriani, 2020). Age was a significant predictor of stress in this study, with the age group between 16-24 years is more vulnerable to stress. The result is even with studies in the literature that demonstrated younger people reported significantly higher scores on psychological distress compared to other age groups (Varma et al., 2020).

This is the first study to evaluate the psychological health of Nepalese youth during the COVID-19 pandemic. The findings from this study are alarming to healthcare providers and policy-makers to consider mental health impacts in this neglected population during this crucial period. Based on these findings, early psychological intervention would mitigate and prevent the long-term effect of mental health problems among this population.

### Limitations

However, this study is not free of limitations. First, this study was conducted through an online survey which may entail data of lower quality. Second, due to the small sample size, low literacy rate and limited access to computer, findings from this study cannot be generalized to the entire youth population of Nepal. Third, owing to the odd age group (16-40) used in this study, it became hard to compare findings with international data of the youth population. Fourth, because of the cross-sectional nature of the study, establishing the causal relationship between study variables was not possible. Fifth, some possible predictors such as internet use, respondent's occupation, and exposure to the COVID-19 disease were not included in the survey questionnaire, which might have further enhanced the result of this study. Sixth, this study did not use any theoretical model, which would have provided more insight for explaining findings from the study.

### Future research directions

In the future, it is recommended to replicate the study with larger sample size, including youth who do not have access to the computer. There is a need for more robust method using qualitative research design to insight in-depth psychological effect of pandemic in the youth population. Further, longitudinal studies are recommended to explore the long-term mental health impact of COVID-19 in this population.

### Conclusion

We conclude that the Nepalese youth population has a higher prevalence of anxiety, depression, and stress during the COVID-19 pandemic. Anxiety, depression, and stress were higher among the age group 16-24 years, females, those living in rural areas, and undergraduate education level. Gender and education were the predictive tools for anxiety, ethnicity determined depression, and age was associated with stress level. The findings suggest that psychological support programs like relevant psychosocial counselling, self-stress management, and group support are needed urgently to promote the psychological well-being of Nepalese youth. Also, there is a need for longitudinal studies with an adequate sample size for exploring the long-term mental health impact of COVID-19 among the youth population.

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# Locus of Control and Spirituality in Opioid Dependence

Received: 22 November 2021  
Accepted: 07 December 2021

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## Abstract

*The aim of this study was to find out if Locus of Control and Spirituality play a role in opioid dependence (opioid user group). The participants (N=120; 60 opioid user group and 60 non-user gender matched group) completed a questionnaire comprising of demographic information, Multidimensional Locus of Control Scales (Levenson, H., 2009) and Spiritual Attitude and Involvement List (SAIL; De Jager Meezenbroek, E et al., 2012). The results indicated that the opioid user group scored higher in the external locus of control scales (Powerful others scale and Chance scale) as compared to the non-user group in the Multidimensional Locus of Control Scales. There was a significant difference between the two groups in the Spiritual Attitude and Involvement List (SAIL) where the non-user group scored higher in all the subscales. Correlational analysis indicated that in the opioid user group, Internal Scale was significantly positively related to SAIL (Caring for Others), while Powerful others was significantly negatively related to SAIL (Trust). In the non-user group, there was a significant positive relationship between Chance Scale with both Internal Scale and the Powerful Others Scale while Internal Scale was significantly positively related to all the SAIL subscales such as Trust, Caring for Others and Transcendent experiences. The results were found to be consistent with similar researches done in the past and has hence reiterated the importance of religious and spiritual based intervention in substance treatment programs as well as the necessity to readjusting one's locus of control to deal effectively with substance use.*

**Keywords:** Locus of Control, Spirituality, Opioid dependence

The excessive and unregulated use of drugs which is popularly known as drug addiction and drug abuse has presented and continued to present a significant public health concern and burden to the society. Substance or drug addiction is a devastating condition and prolonged use of substance progresses into dependence impacting the mind, body and spirit of individuals. It affects individuals, and eventually their families and the society as a whole (Sussman and Ames, 2001).

The Ministry of Social Justice and Empowerment, Government of India conducted a National Survey on Extent and Pattern of Substance Use in India between December 2017 and October 2018 (Ambekar et al., 2019). According to this survey, about 2.1% of the country's population (2.26 crore individuals) use

opioids. Mizoram has the highest prevalence (25.67%) of opioid use and has the highest opioid dependence (3.26%) as compared to other states in India.

**Substance Dependence Syndrome** (ICD 10; World Health Organization, 1993) is a cluster of physiological, behavioral 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 behaviors that once had greater value. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take psychoactive drugs (which may or may not have been medically prescribed), alcohol, or tobacco.

**Locus of Control** refers to the extent to which people believe they can control general life outcomes.

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Specifically, internally oriented individuals believe outcomes are primarily related to internal factors (e.g., their own actions), whereas externally oriented individuals believe outcomes are influenced mostly by external factors (e.g., powerful other people), or due to chance factor which has been constructed to measure belief in chance expectancies as separate from a powerful others orientation (e.g., fate controls their lives; Levenson, 1976; Rotter, 1990).

Researchers have found that substance abuse and dependence is often associated with external locus of control and these individuals often scored higher on external locus of control as compared to non-abusers (Niazi et al., 2005 & Prakash et al., 2015).

**Spirituality** is defined as ‘one’s striving for and experience of connection with the essence of life’, which encompasses three main dimensions: connectedness with oneself (meaningfulness, trust, and acceptance), connectedness with others and nature, and connectedness with the transcendent (transcendent experiences and spiritual activities) (De JagerMeezenbroek, et al., 2012). Robinson et al. (2011) investigated the effect of spiritual and religious (SR) change on subsequent drinking outcomes and for this purpose they included both alcohol-dependent individuals in treatment and not on treatment. They found significant changes after 6-months in SR measures such as private SR practices, beliefs, daily spiritual experiences, measures of forgiveness, negative religious coping, and purpose in life. The impact of spirituality can also be seen in a past study by Stewart (2001) who found that spirituality had a moderate buffering effect upon the decision to use drugs such as alcohol and marijuana.

### Statement of the problem

The increasing population of opioid dependent users in Mizoram is a source of ongoing concern and has generated increasing problems within the individual using the substance as well as their family and society as a whole. In addition, studying factors such as Locus of control and Spirituality together will help in giving a

more comprehensive understanding of the difference between people who currently meet dependence syndrome criteria and people who have never done so, as well as throw light upon the importance of these variables in prevention and intervention programmes. Although locus of control (LOC) is one of the most extensively studied constructs in psychological and social science literature (Carton & Nowicki, 1994; Rotter, 1990), its use by substance abuse researchers has been limited. The focus in this particular study is also on Spirituality as a whole which also includes Religiosity factor. This may resonate better with the individuals with non-theistic (inner strength, moral values) interpretations of spirituality (Kaskutas, Turk, Bond & Weisner, 2003). Religiosity has played a pivotal role in the Mizo society and its impact can be seen in the way Substance use problem is dealt with by various religious organizations within the community. For example, rehabilitation homes run by religious institutions and use of spiritual counselling play centre role in terms of recovery and rehabilitation in Mizoram. Hence studying Spirituality and its impact may create more avenues to approach this ever increasing problem within the Mizo Society.

### Objectives

1. To examine the Locus of Control and Spirituality of Opioid User and Non-User control group
2. To study the relationships between Locus of Control and Spirituality in Opioid Use (Opioid User Group and Non-User Group)

### Hypothesis

- 1) It is expected that the Opioid User Group will score significantly higher on Powerful others scale and Chance scale, whereas they are expected to score significantly lower on Internal Scale and Spirituality than Non-User Group

- 2) There will be a significant relationship between Locus of Control and Spirituality in the Opioid User Group and Non-User Group:

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i) Internal Scale will be significantly positively correlated with Spirituality, whereas Powerful others scale and Chance scale will be significantly negatively correlated with Spirituality in the Opioid User Group.

ii) Internal Scale will be significantly positively correlated with Spirituality, whereas Powerful others scale and Chance scale will be significantly negatively correlated with Spirituality in the Non-User Group.

### Method

**Sample:** The participants (N=120) from Aizawl District, Mizoram comprised of 60 Opioid Users (male= 45 and female= 15) and 60 Non-Users (male= 45 and female= 15). The Opioid User Group comprised of individuals who currently meet dependence syndrome criteria for Opioid use (ICD-10 criteria) and were selected randomly from various hospitals and rehabilitation centers. The Non-User Group comprised of individuals who have never met criteria for dependence syndrome for any substance.

### Tools Used

1. Sociodemographic and Clinical data sheet (prepared for this study)

2. **Multidimensional Locus of Control Scales** (Levenson, 1974) is an instrument for assessing the locus of control of adults. It comprised of three scales (Internal, Powerful Others, and Chance—I, P, C) and each of the I, P, and C scales consists of 8 items and these are presented to the subject as a unified attitude scale of 24 items. Internal consistency reliability was satisfactory with a Cronbach's alpha above 0.70 for all LOC dimensions (Kourmousi, Xythali & Koutras, 2015).

3. **Spiritual Attitude and Involvement List (SAIL):** (de Jager Meezenbroek, Garssen, Van den Berg, Tuytel, Van Dierendonck, Visser, & Schaufeli, 2012) is a 26-item Spiritual Attitude and Involvement List developed to examine spirituality among religious and nonreligious people. It has 7 subscales: Meaningfulness, Trust, Acceptance, Caring for Others,

and Connectedness with Nature, Transcendent Experiences and Spiritual Activities. However, for the purpose of this study only 3 subscales were included namely, Trust, Caring for Others and Transcendent Experiences to study aspects of Spirituality. The internal consistency and test-retest reliability were found to be adequate and the subscales successfully withstood most of the convergent and discriminant validity tests (De JagerMeezenbroek, *et al.*2012)

### Results and Discussion

The age range for the Opioid User group was 21-50 years (M=30.13, SD= 5.5) out of which 45 were male, 15 female and for the Non-User group was 23-43 years (M=33.35, SD=5.39) out of which 45 were male and 15 female. In terms of educational status, in the Opioid User group only 15% studied upto graduation while upto 30% studied till post-graduation among the Non-User group. Majority of the Opioid User group (38.3%) were unemployed while majority of Non-Users (46.7%) were employed in an organized sector. Among the Opioid Users 26.7% were married, 8.3% were separated while 23.3 % were divorced from their spouses. Whereas majority of the Non-Users, 35% were married, 3.3% were divorced and no instance of separation was reported. A majority of the Opioid User group(50%) were hailing from a joint family type while majority of the Non-User group were hailing from a nuclear family type (58.3%).The presence of history of family substance use was higher among the Opioid User group (46.6%) as compared to the Non-User group (13.3%).

Cronbach's Alpha reliability coefficients showed generally good reliability of the scales (above .70; Nunnally, 1978) except for a less than perfect coefficients of .58 and .61 for Chance Scale in both the groups and .60 for Caring for Others in the Opioid User Group, which however may be accepted considering the disadvantages of small sample sizes (Table 1&2). Levene's test for Equality of variances (Table 1& 2) were not significant which indicated that the scores were homogenous. Kurtosis and Skewness showed non-probability curve indicating a normal distribution of the test scores.

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**Table 1: Descriptives and group differences (Opioid User Group and Non-User Group) in Multidimensional Locus of Control**

Scales	Groups	Cronbach's Alpha	Mean	SD	Levene's test for equality of variances		<i>t</i>	Cohen's <i>d</i>
					<i>f</i>	Sig		
Internal Scale	Opioid User	.73	34.60	6.99	2.172	.143	.947	.172
	Non User	.60	33.50	5.65				
Powerful others Scale	Opioid User	.60	22.70	8.16	5.39	0.22	<b>2.15*</b>	.386
	Non User	.76	19.83	6.37				
Chance Scale	Opioid User	.58	32.90	6.44	.046	.830	<b>4.83**</b>	.809
	Non User	.61	27.35	6.14				

\*\* significant at .01 level

\* significant at .05 level

The present study examined Locus of Control and Spirituality of individuals with opioid dependence. A gender matched control group of Non-Users were taken from the general population for comparison. As hypothesised, the Opioid User Group scored significantly higher in Powerful Others Scale with moderate effect size (Cohen's  $d = .386$ ) and significantly higher in Chance Scale with large effect size (Cohen's  $d = .809$ ) as compared to Non-User Group (Table1).

Niazi et al. (2005) in their study found that substance abusers significantly scored higher on external locus of control. Prakash et al. (2015) also found that amongst Alcohol Dependent patients, their locus of control was externally oriented in comparison to their

normal counterparts. Chaudhury et al. (2015) also found that as compared to their counterpart, alcohol-dependent patients tend to have external locus of control.

However, in this current study, there was no significant difference between the two groups in terms of Internal scale as was expected (Table 1). One explanation maybe that this particular factor may be more prominent during periods of abstinence and treatment as can be seen in previous researches. Past researches have revealed a significant correlation between internal locus of control and abstinence during the period of the study (Sadava, 1986) and a tendency to move toward a more internal locus of control during treatment (Abbott, 1984).

**Table 2: Descriptive and group differences (Opioid User Group and Non-User Group) in Spiritual Attitude and Involvement List (SAIL)**

Scales	Groups	Cronbach's Alpha	Mean	SD	Levene's test for equality of variances		t	Cohen's d
					f	Sig		
Trust	Opioid User	.70	14.32	3.62	2.65	.11	<b>6.84**</b>	-1.06
	Non User	.73	18.48	3.02				
Caring for Others	Opioid User	.60	17.78	2.94	1.59	.21	<b>4.84**</b>	-.809
	Non User	.69	20.27	2.68				
Transcendent Experiences	Opioid User	.65	19.53	4.36	.64	.43	<b>4.41**</b>	-.749
	Non User	.69	22.85	3.86				

**\*\* significant at .01 level**

**\* significant at .05 level**

The study also examined Spirituality of individuals with opioid dependence and they were compared with a gender matched control group. As hypothesized, the Opioid User Group scored significantly lower in all the SAIL subscales included namely Trust with large effect size (Cohen's  $d = -1.06$ ), Caring for Others with large effect size (Cohen's  $d = -.809$ ) and Transcendent Experiences with large effect size (Cohen's  $d = -.749$ ) as compared to the Non-User Group (Table 2).

Majority of researches done in this area have focussed on religiosity and not the broader scope of spirituality. Robinson et al. (2011) found significant 6-month changes in spiritual and religious (SR) measures which included private SR practices, beliefs, daily spiritual experiences, three measures of forgiveness, negative religious coping, and purpose in life amongst alcohol dependent individuals. Stewart, C. (2001) also found that spirituality had a moderate buffering effect upon an individual's decision to use alcohol and marijuana.

**Table 3: Table showing the Pearson Correlation of the scales and subscales in the Opioid User Group**

OPIOID USER GROUP						
	Internal Scale	Powerful others	Chance	Trust	Caring for others	Transcendent Experiences
Internal Scale	1	.117	.212	.150	<b>.375**</b>	.007
Powerful Others		1	.204	<b>-.424**</b>	-.093	-.223
Chance			1	-.105	.141	-.053
Trust				1	<b>.408**</b>	<b>.485**</b>
Caring for Others					1	.233
Transcendent experiences						1

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

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

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In terms of the relationship between Locus of Control and Spirituality in Opioid User Group, as was expected (Table 3) the Internal Scale was significantly

positively related to SAIL (Caring for Others) while the Powerful others was significantly negatively related to SAIL (Trust).

**Table 4: Pearson Correlation of the scales and subscales in the Non User Group**

NON USER GROUP						
	Internal Scale	Powerful others	Chance	Trust	Caring for others	Transcendent experiences
Internal Scale	1	-.062	.441**	.478**	.445**	.335**
Powerful others		1	.550**	-.225	-.221	.012
Chance			1	.012	.027	.276*

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

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

Control and Spirituality in the Non-User Group, there was a significant positive relationship between Internal Scale and Chance Scale. And the Powerful Others Scale was also significantly positively related to Chance Scale. As was expected, the Internal Scale was significantly positively related to all the SAIL subscales such as Trust, Caring for Others and Transcendent experiences (Table 4).

And finally in both the Opioid User Group and Non-User Group (Table 3 & 4) there was mostly a significant positive relationship between the different subscales of the SAIL namely-Trust, Caring for Others and Transcendent Experiences except for in the Opioid User Group, the relationship between Caring for others and Transcendent Experiences was not significantly positive.

There is very limited research studying the relationship between spirituality and locus of control. A positive relationship between religiosity and external locus of control has also been found in a past cross-sectional study done in Hamadan City, Iran on 398 male participants who uses alcohol and other illicit drugs (Farhadinasab et al., 2008).

The aim of this study was to examine the relationships between Locus of Control and Spirituality in Opioid User Group and Non-User Group. Cronbach's Alpha reliability coefficients showed less than perfect reliability of the scales being used for this study. The results indicated significant differences in Multidimensional Locus of Control Scales wherein the Opioid User Group scored higher in the Powerful others and Chance scale as compared to the Non-User Group. However, there was no significant difference between the two groups in terms of Internal scale. There was significant difference between the two Groups in all the subscales of the Spiritual Attitude and Involvement List (SAIL). Correlational Analysis indicated that in the Opioid User Group, Internal Scale was significantly positively related to SAIL (Caring for Others), Powerful Others was significantly negatively related to SAIL (Trust). In the Non-User Group, there was a significant positive relationship between Internal Scale and Chance and the Powerful Others was also significantly positively related to Chance and Internal Scale was significantly positively related to all the SAIL subscales. And finally in both groups there was mostly a significant positive

relationship between the different subscales of the SAIL.

### Conclusions

The results were found to be consistent with similar researches done in the past and has hence reiterated the importance of religious and spiritual based intervention in substance treatment programs as well as the necessity to readjusting one's locus of control to deal effectively with substance use. And as mentioned earlier, spirituality is not a concept that has been covered in non-theistic perspective especially in the Mizo community; more emphasis has been towards religiosity. Hence, including the larger perspective of Spirituality may widen the scope for intervention and ultimately prevention.

### Limitations and future prospects

The generalizability of the findings may be limited by the small sample size was small in both the groups. Incorporation of gender as a variable would have enriched the study. However, this was restricted due to limited opportunity for collecting female sample as there were less number of female opioid use cases. Some of the participants had a prior history of other substance use. It would have been ideal to tease out these effects. Additional qualitative data could have enriched the findings of the study by giving an understanding of other psychological and social factors playing a role in substance use and dependence.

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## Spirituality, Anxiety and Antenatal Outcomes

Received: 30 November 2021

Accepted: 09 December 2021

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### Abstract

*The present study aims to examine the relationship between spirituality and anxiety during 2<sup>nd</sup> and 3<sup>rd</sup> trimesters of pregnancy, the relationship between spirituality and antenatal outcomes viz., gestational age, infant weight and apgar score of 1 & 5 minutes and the relationship between anxiety during 2<sup>nd</sup> and 3<sup>rd</sup> trimesters of pregnancy and antenatal outcomes. The study was conducted on a sample of 100 pregnant women of age range between 20-35 years during 2<sup>nd</sup> and 3<sup>rd</sup> trimester of their pregnancy who were recruited in Department of Obstetrics and Gynecology of Institute of Medical Sciences Banaras Hindu University, Varanasi. The study follows a correlational design. Spirituality and anxiety have been treated as independent variables, and antenatal outcomes have been treated as dependent variables. Spirituality was measured by using The Daily Spiritual Experiences Scale (Underwood, 2002) and the Hindi adaptation of the scale was done to use in Indian context (Cronbach alpha 0.79). Anxiety was assessed by using State, Trait and Free-floating Anxiety Inventory (Rastogi & Tripathi, 1986). The indices of internal consistency for both state and trait scale is 0.93 and 0.89 respectively. The data was analyzed with correlational analysis and hierarchical regression. The results indicated that spirituality is significantly negatively correlated with anxiety during pregnancy and positively correlated with antenatal outcomes in pregnant women. The results also revealed that anxiety during pregnancy is negatively correlated with antenatal outcomes. Thus, it can be concluded that women with high level of spirituality were more likely to have less anxiety and healthy antenatal outcomes.*

**Keywords:** Spirituality, anxiety, pregnancy, antenatal outcomes

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Pregnancy is a joyous period for almost all the women and almost every woman experiences this pleasure once in their lifetime. However, for some women this period may be stressful too. A pregnant woman experiences a lot of physical changes as well as psychological changes e.g. anxiety, depression and stress during her pregnancy. Depending on the type of measure used it is estimated that prevalence of depression during pregnancy can be 16% or more in symptomatic form and 5% as major depression (Leight, Fitelson, Weston, & Wisner, 2010). Although a concrete estimates regarding prenatal anxiety is not available, but previous studies suggested that a significant number of women experience prenatal anxiety during their pregnancy (Ross & McLean, 2006). Several studies found that elevated depression (Grote, Bridge, Gavin, Melville, Iyengar, & Katon, 2010) and anxiety (Kramer, Lydon, Séguin, Goulet, Kahn, McNamara et al., 2009) levels predicted an increased risk for preterm labor

and low birth weight (Schetter & Tanner, 2012). Maternal antenatal anxiety involves a range of experiences e.g. transient mood disturbance, personality-based or trait anxiety, clinical diagnoses of anxiety disorder etc. These experiences of anxiety are generally measured by self-report questionnaire, which are associated with measurable effects on the infant in utero and with later emotional, cognitive, and behavioural effects on the infant/child (Glover, 2011; Talge, Neal, & Glover, 2007) even after controlling the effects for obstetric complications, depression, and complications in the postnatal period (Van Den Bergh, Mulder, Mennes, & Glover, 2005). Although the effect of prenatal maternal anxiety on foetal development does not occur in each case but the behavioural/emotional problems can be attributed from 10–15% in the population (Glover, 2015).

Studies reveal that antenatal maternal anxiety is associated with increased rates of spontaneous preterm

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births (less than 37 weeks) (Dancause et al., 2011; Glynn, Wadhwa, Dunkel-Schetter, Chiciz-Demet, & Sandman, 2001; Pavlov, Steiner, Kessous, Weintraub, & Sheiner, 2014). Approximately 50–70% of premature infants with birth weight less than 1500gm may develop later dysfunctions, such as learning disabilities, attention problems, autism spectrum disorders, respiratory illnesses, cognitive deficits, psychiatric disorders, neuropsychological deficits, and behavioural problems (Aylward, 2002).

A review by Dunkel Schetter & Glynn, (2011) revealed that seven of eleven studies significantly predicted Preterm Birth in combination with other measures or in subgroups of the sample with State anxiety during pregnancy. But a meta-analysis reported that there was not a significant association between anxiety symptoms and overall perinatal outcomes, though small statistically significant relationships were present for birth weight and 5-minute Apgar score (Littleton et al. 2007).

Several researches have been conducted to understand the relationship between maternal anxiety during pregnancy and child neurodevelopment. One such study conducted by Van den Bergh and Marcoen (2004) claimed that antenatal anxiety accounted 22% of the variance in explaining attention deficit hyperactivity disorder symptoms and explained 9% of variance in anxiety symptoms in children (8 to 9 year).

Another study demonstrated a significant association between anxiety in late pregnancy and doubling the risk of child to suffer from ADHD, anxiety or depression, or conduct disorder at 4 and 7 years of age (O'Connor et al. 2002). Similarly, a recent study conducted by Newman, Judd, & Komiti (2017) revealed that maternal anxiety has a strong impact on neurodevelopment and psychosocial outcomes of infants i.e. reduced foetal heart rate (FHR) (DiPietro et al., 1996); increased rate of spontaneous preterm birth (less than 37 weeks) (Dancause et al., 2011); Hyperactivity/inattention in boys (Loomans, Van Derstelt, Van eijdsen, Hemke, & Vrijkottes, 2012); Lower mental developmental Index (MDI) and psychosocial development Index (PDI) score on Bayley Scales of Infant Development at 8 months (Buitelaar, Huizink, Mulder, De Medina & Visser, 2003) etc.

From ancient times people use spirituality and religion to cope with stressful situations (Harris, Erbes,

Engdahl, Olson, Winkowski, McMahon, 2008; Pargament, Koenig, Tarakeshwar, Hahn, 2001; Pargament, Koenig, Tarakeshwar, Hahn, 2004) so the beliefs and values of women including spirituality and cultural values may be one of the methods to cope with depression and anxiety during pregnancy (DunkelSchetter, 2011). In Indian tradition pregnancy has its religious value too. In Hindu tradition many Samskara are performed before conception, during pregnancy and following the childbirth for a healthy and auspicious pregnancy. For a long time prayer and other spiritual practices are used by the women for their own and others' health concerns (National Centre for Complementary and Alternative Medicine, 2005).

A study conducted on childbearing African-American women, including those who were coping with grief after miscarriage found spirituality was a powerful ameliorating coping strategy (Dailey & Stewart, 2007). Reviews of research conducted regarding spirituality during pregnancy concluded powerful spiritual relationships exist between childbearing women and their unborn children (Hall, 2006; Hall & Taylor, 2004).

The study conducted by Najman et al. (1988) in which they reported the relationship of religiosity to maternal and infant health. They found that highly religious sect members exhibited significantly fewer health risk behaviors during pregnancy and their infant weighed significantly more and had a later gestational age at birth.

Similarly, Magana and Clark (1995), who reviewed the literature on the relationship of religiosity and spirituality to birth outcomes in Mexican American women, postulated that Mexican American women would experience less perinatal mortality and higher birth weights, despite lower socioeconomic status and less perinatal care because of the strong influence of spirituality and religiosity in Latino culture.

Morgan (1996) in a qualitative study (N=33) examined cultural context of prenatal care for African American women in urban and rural environments. An aspect of their findings was that women expressed the importance of spirituality as way to feel a sense of balance. Seema (2015) explored the relationship between spirituality and well-being among antenatal women and the study reported that women who were recognised as highly spiritual enjoyed greater well-being during pregnancy.

Similarly, Bodagietal. (2016) conducted a study to investigate the role of spiritual and social support in the prediction of anxiety, depression, and stress in pregnant women. They found that anxiety, depression, and stress have an inverse relationship with spirituality and social support. Niaghihaetal. (2019) investigated the correlation between spiritual well-being & life-satisfaction given the mediating role of social support in pregnant women. This study showed a significant and direct association between spiritual well-being and life-satisfaction among pregnant women.

Recently, Sanaeinasabetal., (2020) conducted a study to assess the impact of a spiritual intervention in reducing stress, anxiety, depression, & blood pressure during pregnancy. The intervention program utilized a spiritually- integrated cognitive behavioral approach to help the participants. The results revealed a significant decrease in stress, anxiety, & depression scores in the intervention group. Along with this there were also significant differences in systolic and diastolic blood pressure in the intervention group.

Based on previous studies it is evident that spirituality is generally associated with better mental health, also anxiety is prevalent during pregnancy with the possibility that these anxiety symptoms may negatively impact antenatal outcomes and there is very less researches on spirituality and antenatal outcomes, therefore the present study was conducted to examine the relationship between spirituality, anxiety and antenatal outcomes.

### Materials and Method

**Participants:** The present study was conducted on a sample of 100 pregnant women. Recruitment of pregnant women was coordinated by the Department of Obstetrics and Gynecology, Sir Sunder Lal Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India. Women in the second trimester of their pregnancy were eligible to participate in the study. Informed consent was obtained from all the women and study was approved by Department of Obstetrics and Gynecology, I.M.S., Banaras Hindu University.

**Inclusion criteria:** The inclusion criteria of the study were age over 20 years up to 35 years, able to read and write Hindi, should be in the second trimester of their pregnancy, no severe medical problems requiring individualized assessment and tracking as “a

high-risk pregnancy” and no presence of psychological or psychiatric disease necessitating hospitalization.

**Exclusion criteria:** The exclusion criteria of the study were age below 20 years and above 35 years, illiterate women, women other than second trimester, women with psychological or severe physical problems, unmarried mothers, and HIV positive mothers, inability to read and understand questionnaire of language difficulties and not providing informed consent and women with chronic infectious diseases, cardiopathy, mental diseases, hypertension/preeclampsia/eclampsia, and vaginal bleeding were not included in the study.

### Measures

At the time of recruitment the medical, obstetrical and gynecological history was thoroughly documented and their personal details e.g. name, age, education, income, along with physiological variables i.e. height, weight etc. were collected. With the help of these physiological variables body mass index (BMI) was calculated (weight (kg) /height (m<sup>2</sup>).

In addition, standardized questionnaires on spirituality and anxiety were also completed. Following the completion of pregnancy, information regarding delivery, labor, infant weight etc. were obtained from the hospital record.

### Psychometric Evaluations

**Daily Spiritual Experience Scale:** The Daily Spiritual experiences scale is constructed by Lynn Underwood (2002) and it is developed in western context so, the Hindi adaptation of the scale was done such that it can be used in Indian context. This scale aims to assess the individual's perception of the supreme power i.e. God, the divine in his daily life. Thus, the items of this scale measures the daily spiritual experiences of an ordinary person. In this scale, the following dimensions were identified: connection with the transcendent; sense of support from the transcendent, wholeness, transcendent sense of awe, gratitude, compassion; mercy and longing for the transcendent. The scale consists of 16 items and the response categories of all items except for the question 16 are: many times a day; everyday; most days; some days; once in a while; never or almost never. The reliability was calculated by Cronbach alpha and it was found to be 0.79.

**The Self-Evaluation Scale (An anxiety scale for state, trait and free-floating anxieties):-** The self-

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evaluation scale was used to assess the levels of maternal state and trait anxiety. It was constructed by R.R. Tripathi and Ambar Rastogi on the basis of state-trait anxiety Inventory (Spielberger, 1970). The self-evaluation scale consists of 3 subscales in which Part-I is for Anxiety- State subscale, Part-II is for Anxiety-Trait subscale and Part –III is for Anxiety- Free-floating subscale.

In the present study Part-I and part-II of scale were used for measuring the anxiety level in pregnant women. The items for A-State Scale and A-Trait Scale have been drawn largely from the Spielberger Scale, the STAI (Spielberger et al., 1970) with some modification. The Hindi version of the STAI (Spielberger, et al., 1973) was considered unfit for adaptation because of its inappropriate Hindi rendering. Thus, state anxiety scale consists of 20 items in which 10 are positive and 10 are negative items.

Similarly, Trait anxiety scale consists of 28 items in which there are 16 positive items and 13 items are from Spielberger et al., (1970)'s trait anxiety scale and 3 more items had been added. A positive –negative imbalance in the trait scale was correlated by additional items. Thus, the preliminary structure of the A-trait scale was also prepared with positive-negative balance and wider coverage of contents. The response category of state anxiety scale ranges from 1" nominally" to 5 "exceedingly" and response category of trait anxiety scale ranges 1 "seldom" to 5 "always". A total score is calculated by summing all the items. Higher scores obtained by subjects indicate greater degree of anxiety. The indices of internal consistency for both state and trait scale is .93 and .89 respectively.

### Results

Correlational analysis was performed to see the relationships between demographic variables and antenatal outcomes because pregnancy is affected by a number of factors.

**Table 1: Correlation matrix between demographic variables and neonatal outcomes viz., gestational age, infant weight, apgar score of 1 & 5 minutes**

	Gestation age	Infant weight	Apgar score 1 minute.	Apgar score 5 minute
Age	.223*	.289**	.135	.147
Education	.242*	.293**	.254*	.217*
Income	.333**	.400**	.335**	.330**
Parity	.124	.113	-.009	.034
BMI 2 <sup>nd</sup> trimester	.276**	.302**	.177*	.215*
BMI 3 <sup>rd</sup> trimester	.332**	.388**	.261**	.310**

\*\* p<0.01; \* p<0.05

Table 1 presents the correlation between demographic variables and antenatal outcomes. The matrix shows that all of the demographic variables are significantly related to antenatal outcomes except parity. The age of the mother is significantly positively correlated with the gestational age ( $r = .22$ ,  $p < 0.05$ ) and birth weight ( $r = .28$ ,  $p < 0.01$ ) but not with the apgar

score of one minute and five minutes, indicating that mothers with appropriate age were more likely to have a infant of full gestational age and good birth weight (as the sample is only till 35 years). Similarly, education and income was significantly positively correlated with gestational age ( $r = .24$ ,  $p < 0.05$  &  $r = .33$ ,  $p < 0.01$ ), infant weight ( $r = .29$  &  $r = .40$   $p < 0.01$ ), apgar score 1 minute

( $r = .25, p < 0.05$  &  $r = .33, p < 0.01$ ) and apgar score 5 minute ( $r = .21, p < 0.05$  &  $r = .33, p < 0.01$ ). But, parity was non-significantly related to gestational age, infant birth weight and apgar score of 1 minute & apgar score of 5 minutes.

Body mass index (BMI) of 2<sup>nd</sup> and 3<sup>rd</sup> trimester were also significantly positively correlated to

gestational age ( $r = .27$  &  $r = .33$ , both  $p < 0.01$ ), infant birth weight ( $r = .30$  &  $r = .38$ , both  $p < 0.01$ ), and apgar score of 1 min. ( $r = .17, p < 0.05$  &  $r = .26, p < 0.01$ ) and apgar score of 5 minute ( $r = .21, p < 0.05$  &  $r = .31, p < 0.01$  respectively), revealing that BMI (body mass index) is an important factor in determining gestational age, infant weight, and apgar score of newborn baby.

**Table 2: Correlations between spirituality and anxiety during 2<sup>nd</sup> & 3<sup>rd</sup> trimester of pregnancy**

	State anxiety 2 <sup>nd</sup> trimester	Trait anxiety 2 <sup>nd</sup> trimester	State anxiety 3 <sup>rd</sup> trimester	Trait anxiety 3 <sup>rd</sup> trimester
Spirituality	-.696**	-.611**	-.599**	-.525**

\*\*  $p < 0.01$

Table 2 shows the correlation between spirituality and anxiety during 2<sup>nd</sup> and 3<sup>rd</sup> trimester of pregnancy. This table shows that spirituality is significantly negatively correlated with state anxiety of 2<sup>nd</sup> and 3<sup>rd</sup> trimester ( $r = -.696, p < 0.01$  &  $r = -.599, p < 0.01$  respectively) and trait anxiety of 2<sup>nd</sup> and 3<sup>rd</sup> trimester ( $r = -.611, p < 0.01$  &  $r = -.525, p < 0.01$  respectively)

revealing that women with high spirituality were less anxious during their pregnancy.

Again, correlation analysis was applied to examine the relationship between spirituality and antenatal outcomes viz., gestational age, infant weight and apgar score of 1 & 5 minutes. The results of correlation analysis between spirituality and antenatal outcomes are shown in shown in Table 3.

**Table 3: Correlations between spirituality and antenatal outcomes**

	Gestational age	Infant weight	Apgar score 1 min.	Apgar score 5 min.
Spirituality	.566**	.579**	.482**	.485**

\*\*  $p < 0.01$

The results indicate that spirituality has significant positive correlation with gestational age ( $r = .566, p < 0.01$ ), birth weight ( $r = .579, p < 0.01$ ) apgar score of 1 minute ( $r = .482, p < 0.01$ ), and apgar score of 5 minutes ( $r = .485, p < 0.01$ ) respectively. These correlations suggest that spirituality is significantly positively associated with antenatal outcomes, revealing that women who were more spiritual were more likely to

have healthy antenatal outcomes in terms of gestational age, infant weight and apgar score of 1 and 5 minutes.

Again, several correlation analysis was conducted to test the relationship between anxiety and the antenatal outcomes i.e. gestational age (delivery at  $\geq 37$  weeks), infant weight ( $\geq 2500$  grams), and apgar score of 1 & 5 minutes as displayed in Table 4.

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**Table 4: Correlations between anxiety of 2<sup>nd</sup> trimester and antenatal outcomes**

	Gestation age	Infant weight	Apgar score of 1 minute	Apgar score of 5 minute
State anxiety	-.562**	-.607**	-.577**	-.512**
Trait anxiety	-.512**	-.541**	-.487**	-.464**

\*\* p<0.01

Table 4 shows the correlation between anxiety during 2<sup>nd</sup> trimester of pregnancy with gestational age, infant birth weight, apgar score of 1 minute and apgar score of 5 minutes. State and trait anxiety are negatively correlated with gestational age ( $r = -.562$ ,  $p < 0.01$ ;  $r = -.512$ ,  $p < 0.01$  respectively), infant weight ( $r = -.607$ ,  $p < 0.01$  &  $r = -.541$ ,  $p < 0.01$  respectively), apgar score

of 1 minute ( $r = -.577$ ,  $p < 0.01$  &  $r = -.487$ ,  $p < 0.01$ ), and apgar score of 5 minutes ( $r = -.512$ ,  $p < 0.01$  &  $r = -.464$ ,  $p < 0.01$ ) showing that women who reported higher state and trait anxiety were more likely to deliver an infant of shorter gestational age and more likely to deliver a low birth weight infant.

**Table 5: Correlations between anxiety of 3<sup>rd</sup> trimester and antenatal outcomes**

	Gestation age	Infant weight	Apgar score of 1 minute	Apgar score of 5 minute
State anxiety	-.458**	-.548**	-.521**	-.462**
Trait anxiety	-.446**	-.484**	-.477**	-.443**

\*\* p<0.01

Table 5 shows the correlation between anxiety of 3<sup>rd</sup> trimester with gestational age, infant weight, apgar score of 1 minute and apgar score of 5 minutes. State and trait anxiety are negatively correlated with gestational age ( $r = -.458$ ,  $p < 0.01$  &  $r = -.446$ ,  $p < 0.01$ ), infant weight ( $r = -.548$ ,  $p < 0.01$  &  $r = -.484$ ,  $p < 0.01$  respectively), apgar score of 1 minute ( $r = -.521$ ,  $p < 0.01$

&  $r = -.477$ ,  $p < 0.01$ ), and apgar score of 5 minutes ( $r = -.462$ ,  $p < 0.01$  &  $r = -.443$ ,  $p < 0.01$ ).

On the basis of these correlational analyses, further several multiple hierarchical regression analyses was performed to study the relationship between these variables after controlling the effects of demographic variables.

**Table 6: Results of Multiple Linear Regression Analysis (Hierarchical) using spirituality as predictor and anxiety of 2<sup>nd</sup> trimester as criterion (N=100)**

Dependent variable	Standardized Beta value			
	State anxiety		Trait anxiety	
Control variable	Step 1	Step2	Step1	Step2
<i>Age</i>	.115	.123	.135	.142
<i>Education</i>	-.223*	-.172*	-.223*	-.179
<i>Income</i>	-.155	-.078	-.170	-.102
<i>Parity</i>	-.060	-.035	-.075	-.053
<i>BMI</i>	-.375***	-.191*	-.307**	-.145
Independent variable				
Spirituality		-.605***		-.531***
R	.489	.741	.442	.658
R2	.240	.549	.195	.433
R2 change	.240	.309	.195	.238
F α	5.92***	63.68***	4.55***	39.02***

Step 1= 5, 94

\*p<0.05

Step 2= 1, 93

\*\*p<0.01

\*\*\*p<0.001

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Table 6 presents the results of hierarchical regression analyses using spirituality as predictor and state anxiety and trait anxiety during 2<sup>nd</sup> trimester of pregnancy as criterion. The results displayed in the Table showed that spirituality is significantly negatively correlated with state anxiety ( $\beta = -.605$ ,  $p < 0.001$ ) and trait anxiety ( $\beta = -.531$ ,  $p < 0.001$ ) during 2<sup>nd</sup> trimester

of pregnancy even after controlling the effects of demographic variables.

Spirituality entered in the model accounted 30.9 % of total variance in explaining the state anxiety, 23.8% of total variance in explaining trait anxiety. Thus, the results indicate that higher spirituality is predictive of lesser anxiety during second trimester of pregnancy.

**Table 7: Hierarchical regression analysis using spirituality as predictor and anxiety during 3<sup>rd</sup> trimester of pregnancy as criterion**

Dependent variable	<i>Standardized Beta value</i>			
	<i>State anxiety</i>		<i>Trait anxiety</i>	
	Step 1	Step2	Step1	Step2
<b>Control variable</b>				
<i>Age</i>	.021	.055	.115	.144
<i>Education</i>	-.196	-.159	-.223*	-.191
<i>Income</i>	.037	.072	-.184	-.154
<i>Parity</i>	-.015	-.019	-.062	-.066
<i>BMI III</i>	-.373***	-.181	-.230*	-.066
<b>Independent variable</b>				
<b>Spirituality</b>		-.530***		-.454 ***
<b>R</b>	.412	.632	.421	.588
<b>R2</b>	.169	.400	.177	.346
<b>R2 change</b>	.169	.230	.177	.169
<b>F <math>\alpha</math></b>	<b>3.83 **</b>	<b>35.65 ***</b>	<b>4.05 **</b>	<b>23.95 ***</b>

Step 1= 5, 94

Step 2= 1, 93

\* $p < 0.05$

\*\* $p < 0.01$

\*\*\* $p < 0.001$

Similarly, Table 7 shows the results of hierarchical regression analysis using spirituality as predictor and anxiety during 3<sup>rd</sup> trimester of pregnancy as criterion. It can be seen from Table 7, that spirituality is significantly negatively correlated with state anxiety ( $\beta = -.530$ ,  $P < 0.001$ ) and trait anxiety ( $\beta = -.454$ ,

$p < 0.01$ ). It accounted 23.0% total variance in predicting state anxiety and 16.9% of total variance in predicting trait anxiety revealing that women with high spirituality were having less anxiety, during their 3<sup>rd</sup> trimester of pregnancy.

Table 8: Multiple Linear Regression Analysis (Hierarchical) using spirituality as predictor and antenatal outcomes as criterion (N=100)

Dependent variable	<i>Standardized Beta value</i>							
	<i>Gestational age</i>		<i>Infant weight</i>		<i>Apgar score 1min.</i>		<i>Apgar score 5 min.</i>	
	Step 1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
<i>Control variable</i>								
<i>Age</i>	.017	-.015	.093	.062	-.037	-.064	-.019	-.046
<i>Education</i>	.144	.111	.156	.125	.133	.105	.093	.066
<i>Income</i>	.178	.147	.176	.146	.217	.190	.207	.181
<i>Parity</i>	.076	.080	.026	.030	-.035	-.032	-.015	-.011
<i>BMI II</i>	-.010	.000	-.150	-.141	-.184	-.176	-.226	-.218
<i>BMI III</i>	.254	.071	.434*	.260	.366	.209	.449	.298
<i>Independent variable</i>								
<i>Spirituality</i>	-	.481***	-	.456***	-	.413** *	-	.398** *
<b>R</b>	<b>.435</b>	<b>.615</b>	<b>.518</b>	<b>.663</b>	<b>.406</b>	<b>.552</b>	<b>.419</b>	<b>.553</b>
<b>R2</b>	<b>.189</b>	<b>.378</b>	<b>.268</b>	<b>.439</b>	<b>.165</b>	<b>.304</b>	<b>.176</b>	<b>.305</b>
<b>R2 change</b>	<b>.189</b>	<b>.190</b>	<b>.268</b>	<b>.170</b>	<b>.165</b>	<b>.140</b>	<b>.176</b>	<b>.129</b>
<b>F α</b>	<b>3.61**</b>	<b>28.06***</b>	<b>5.68**</b>	<b>27.94**</b>	<b>3.06*</b>	<b>18.46**</b>	<b>3.30*</b>	<b>17.14**</b>

Step 1=6, 93

step 2=1,92

\*p&lt;0.05

\*\*p&lt;0.01

\*\*\*p&lt;0.001

Again hierarchical multiple regression was used to examine the effect of spirituality on the gestational age, birth weight and apgar score of the infants, while controlling the effect of demographic variables. As shown in Table 8 that even after controlling the effects of demographical variables spirituality has significantly predicted the antenatal outcomes. Spirituality was significantly positively correlated to gestational age ( $\beta = .481, p < 0.001$ ), infant weight ( $\beta = .456, p < 0.001$ ), apgar score of 1 minute ( $\beta = .413, p < 0.001$ ), and apgar score

of 5 minutes ( $\beta = .398, p < 0.001$ ). The result displayed in Table 8 also explains that spirituality accounted 19.0% of total variance in explaining gestational age, 17.0% of total variance in explaining infant weight, 14.0% of total variance in explaining apgar score of 1 minute and 12.9% of total variance in explaining apgar score of 5 minutes. Thus, findings reveals that women who are highly spiritual would have healthy antenatal outcomes i.e. gestational age (delivery at  $\geq 37$  weeks), infant weight ( $\geq 2500$  grams), and good apgar score at one and five minutes.

**Table 9: Multiple Linear Regression Analysis (Hierarchical) using trait anxiety as predictor and pregnancy outcomes as criterion (N=100)**

Dependent variable	Standardized Beta value							
	Gestational age		Infant weight		Apgar score 1min.		Apgar score 5 min.	
Control variable	Step 1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
Age	-.018	.038	.032	.091	-.088	-.025	-.082	-.030
Education	.155	.046	.174	.059	.149	.026	.112	.011
Income	.221	.145	.248*	.168	.278*	.192	.282*	.211
Parity	.110	.081	.085	.053	.014	-.019	.046	.018
BMI II	.207*	.024	.221	.027	.129	-.078	.158	-.013
Independent variable								
State anxiety II	---	-.488***	---	-.516 ***	---	-.550***	---	-.455***
R	.422	.599	.486	.662	.376	.610	.375	.546
R2	.178	.358	.236	.439	.142	.372	.141	.298
R2 change	.178	.181	.236	.203	.142	.230	.141	.158
F α	4.06**	26.20***	5.80***	33.57***	3.10*	34.04***	3.08*	20.88**

Step 1= 5, 94

step 2= 1,93

\*p<0.05

\*\*p<0.01

\*\*\*p<0.001

Table 9 illustrates the results of hierarchical regression analysis in which state anxiety of 2<sup>nd</sup> trimester was used as predictor variable and antenatal outcomes as criterion variables. Demographic variables were treated as control variables. It can be seen from the Table 9 that state anxiety is significantly negatively associated with gestational age ( $\beta = -.48, p < 0.001$ ), infant weight ( $\beta = -.51, p < 0.001$ ), apgar score 1 minute ( $\beta = -.55, p < 0.001$ ), and apgar score 5 minute ( $\beta = -.45, p < 0.001$ ).

Further, results specify that state anxiety of 2<sup>nd</sup> trimester accounted 18.1% of total variance in gestational age, 20.3% of total variance in infant weight, 23% of total variance in 1 minute apgar score and 15.8% of total variance in 5 minutes apgar score. The results suggest that higher state anxiety during second trimester of pregnancy is predictive of lesser gestational age, infant weight, and apgar score of 1 & 5 minute.

Similarly, multiple regression analysis was used to identify the significant contribution of trait anxiety during second trimester of pregnancy on gestational age, infant weight, and apgar score of 1 and 5 minutes while controlling for demographic variables.

Table 10 represents the results of hierarchical regression analysis using trait anxiety of 2<sup>nd</sup> trimester as predictor variable and antenatal outcomes as criterion variables. As shown in Table 10, trait anxiety contributes significantly to gestational age ( $\beta = -.41, p < 0.001$ ), infant weight ( $\beta = -.42, P < 0.001$ ), apgar score of 1 minute ( $\beta = -.42, P < 0.001$ ) and apgar score of 5 minutes ( $\beta = -.38, P < 0.001$ ).

The result in the Table 10 also expose that trait anxiety explained 14.1% of total variance in explaining gestational age, 14.8% of total variance in infant weight, 14.2% of total variance in the apgar score of 1 minute and 12% of total variance in apgar score of 5 minute.

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Table10: Multiple Linear Regression Analysis (Hierarchical) using trait anxiety as predictor and neonatal outcomes as criterion

Dependent variable	Standardized Beta value							
	Gestational age		Infant weight		Apgar score 1min.		Apgar score 5 min.	
Control variable	Step 1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
Age	-.018	.039	.032	.090	-.088	-.031	-.082	-.030
Education	.155	.061	.174	.078	.149	.055	.112	.026
Income	.221	.149	.248*	.175	.278*	.207	.282*	.216
Parity	.110	.078	.085	.052	.014	-.018	.046	.016
BMI II	.207*	.078	.221	.089	.129	.000	.158	.039
Independent variable								
Trait anxiety II	-	-.419***	-	-.429***	-	-.420***	-	-.387***
R	.422	.565	.486	.620	.376	.533	.375	.511
R2	.178	.319	.236	.384	.142	.284	.141	.261
R2 change	.178	.141	.236	.148	.142	.142	.141	.120
F α	4.06**	19.31***	5.80***	22.42***	3.10*	18.43*	3.08*	15.15***

Step 1= 5, 94

step 2= 1,93

\*p<0.05

\*\*p<0.01

\*\*\*p<0.001

Table 11: Multiple Linear Regression Analysis (Hierarchical) using state anxiety of 3<sup>rd</sup> trimester as predictor and pregnancy outcomes as criterion (N=100)

Dependent variable	Standardized Beta value							
	Gestational age		Infant weight		Apgar score 1min.		Apgar score 5 min.	
Control variable	Step 1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
Age	.016	.024	.071	.081	-.063	-.053	-.052	-.044
Education	.145	.074	.166	.080	.146	.054	.109	.034
Income	.179	.193	.190	.206	.235	.252*	.229	.243*
Parity	.077	.071	.039	.033	-.019	-.026	.005	-.001
BMI III	.244*	.109	.295**	.132	.196	.021	.241*	.098
Independent variable								
State anxiety III	-	-.363***	-	-.439***	-	-.469***	-	-.384***
R	.435	.546	.514	.652	.398	.584	.408	.537
R2	.189	.298	.264	.425	.158	.341	.166	.288
R2 change	.189	.109	.264	.160	.158	.183	.166	.122
F α	4.37***	14.51***	6.75***	25.91***	3.54**	25.78***	3.74**	15.96***

Step 1=5,94

step 2=1,93

\*p<0.05

\*\*p<0.01

\*\*\*p<0.001

Again, hierarchical regression analyses were conducted to determine how much variance on the gestational age, infant weight, apgar scope of 1 minute and apgar score of 5 minutes could be explained by the state anxiety during third trimester of pregnancy. In the first step of analysis, demographic factors were entered as control variables such that to control their effects on dependent measures. At second step state anxiety was entered to examine its role on gestational age, infant weight, apgar score of 2 and 5 minutes.

The results are represented in Table 11 showed that state anxiety significantly predicted the gestational age,

infant weight, and apgar score of 1 & 5 minutes. The state was significantly negatively related to gestational age ( $\beta = -.36, p < 0.001$ ), infant weight ( $\beta = -.43, p < 0.001$ ), apgar score 1 minute ( $\beta = -.46, p < 0.001$ ) and apgar score of 5 minute ( $\beta = -.38, p < 0.001$ ).

State anxiety explained 10.9 % of total amount of variance in gestational age, 16% of total variance in infant weight, 18.3% of total variance in apgar score of 1 minute and 12.2% of variance in apgar score of 5 minutes. The results reveal that state anxiety of third trimester is a stronger predictor of antenatal outcomes.

**Table 12: Multiple Linear Regression Analysis (Hierarchical) using trait anxiety of 3<sup>rd</sup> trimester as predictor and neonatal outcomes as criterion (N=100)**

Dependent variable	Standardized Beta value							
	Gestational age		Infant weight		Apgar score 1min.		Apgar score 5 min.	
Control variable	Step 1	Step2	Step1	Step2	Step1	Step2	Step1	Step2
Age	.016	.054	.071	.111	-.063	-.019	-.052	-.013
Education	.145	.071	.166	.090	.146	.061	.109	.034
Income	.179	.118	.190	.127	.235	.165	.229	.167
Parity	.077	.056	.039	.018	-.019	-.043	.005	-.016
BMI III	.244*	.168	.295**	.216*	.196	.108	.241*	.163
Independent variable								
Trait anxiety III	---	-.332***	---	-.343***	---	-.382***	---	-.337***
R	.435	.529	.514	.601	.398	.528	.408	.510
R2	.189	.279	.264	.361	.158	.279	.166	.260
R2 change	.189	.090	.264	.097	.158	.120	.166	.094
F α	4.37***	11.67***	6.75***	14.11***	3.54**	15.49***	3.74**	11.75***

Step 1=5,94

step 2=1,93

\*p<0.05

\*\*p<0.01

\*\*\*p<0.001

With the aim of predicting the role of trait anxiety of 3<sup>rd</sup> trimester on antenatal outcomes hierarchical regression analysis was applied. In this analysis trait anxiety was used as predictor variable and antenatal outcomes as criterion variable. Demographic variable were treated as control variables.

Table 12 displays the results of hierarchical regression representing trait anxiety of 3<sup>rd</sup> trimester as the predictor and antenatal outcomes as the criterion. Results shows that trait anxiety of third trimester is negatively associated with the gestational age of the baby ( $\beta = -.33, p < 0.001$ ) and the infant weight ( $\beta = -.34, p < 0.001$ ), apgar score of 1 minute ( $\beta = -.38, p < 0.001$ ), and apgar score of 5 minutes ( $\beta = -.33,$

$p < 0.001$ ). The total amount of variance explained by trait anxiety for gestational age is 9% and for infant weight is 9.7%, similarly 12% of total variance in apgar score 1 minute and 9.4% of total variance in apgar score of 5 minutes. Thus, from the table we can interpret that trait anxiety of 3<sup>rd</sup> trimester has its significant effect on gestational age, infant weight and apgar score of 1 and 5 minutes.

**Discussion**

The aim of this study was to investigate the relationships spirituality, anxiety and antenatal outcomes. Our findings showed that spirituality is significantly negatively related with both state anxiety and trait anxiety during pregnancy. This finding is

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consistent with the study conducted by Mann et al. (2008) in which they examined the relationships between religiosity, spirituality, and anxiety on the sample of pregnant women and the study revealed that overall religiosity and spirituality (odd ratio 0.53;  $p=0.006$ ) and social support (OR, 0.42;  $p<0.00001$ ) were significantly associated with significantly lower odds of a positive anxiety screen. This study also revealed that anxiety is significantly negatively associated with antenatal outcomes.

The findings are consistent with the studies conducted by Dancause et al., (2011); Glynn, Wadhwa, Dunkel-Schetter, Chicz-Demet, & Sandman, (2001); Pavlov, Steiner, Kessous, Weintraub, & Sheiner (2014) in which they found that antenatal maternal anxiety is associated with increased rates of spontaneous preterm births (less than 37 weeks).

Finally, the study also demonstrated that spirituality is significantly positively related with birth outcomes. Contrary, to the study conducted by Jesse and Alligood (2002) in which they found that higher maternal religiosity scores were significantly associated with earlier gestational age at birth, and a spiritual perspective was associated with birth outcomes.

The results of present study is consistent with the study conducted by Najman et al. (1988) in which they reported the relationship of religiosity to maternal and infant health. They found that highly religious sect members exhibited significantly fewer health risk behaviors during pregnancy and their infant weighed significantly more and had a later gestational age at birth. Bodaghi et al. (2016) stated that spirituality had

an inverse relationship with anxiety, depression and stress among pregnant women.

Similarly, Sanaeinasab et al., (2020) claimed that spiritual intervention i.e. spiritually- integrated cognitive behavioral approach is helpful in reducing stress, anxiety, and depression during pregnancy.

Thus, the findings of present study is more or less consistent to these findings, which indicates that more spiritual women had a full term delivery ( $\geq 37$  weeks), their infants had more weight ( $\geq 2500$ gm) and good apgar score. Thus, in the light of present literature, results from present data supports the research that spirituality is associated with healthy antenatal outcomes in terms of gestational age, birth weight and apgar scores of 1 & 5 minutes.

### Conclusion

Based on the present findings this paper concludes that the pregnant women who were more spiritual were having less anxiety during their pregnancy and had healthy antenatal outcomes in terms of gestational age i.e. delivery  $\geq 37$  weeks, birth weight  $\geq 2500$  grams, and good apgar scores of 1 & 5 minutes. As studies showed that spirituality and religiosity can help people to cope with the mental problems as it provides a cognitive framework that enhances adaptive coping (Morerira-Almeida, 2006) thus, acknowledging the spiritual dimension of women's lives during their childbirth and motherhood may be the ideal contexts to enrich spirituality (Callister & Khalaf, 2010) which may provide them to cope with the various stressors of the pregnancy.

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# Assessing female students' awareness of transformational teaching in the context of online classes

Received: 10 November 2021  
Accepted: 10 December 2021

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## Abstract

*The educational field and teaching professionals alike had not anticipated the vicissitudes of the covid-19 pandemic. Due to the massive spread of covid-19, physical classes were discontinued. The teaching fraternity switched to an online mode of teaching. With the online mode of teaching, the teachers tried their level best and various techniques to engage their students, marking the beginning of the transformational teaching process. The paper seeks to assess the students' perceptions of transformational teaching in the context of online classes. 293 female students across the three streams of Commerce, Science and Arts, participated in the study. Both descriptive and inferential statistics like the mean, standard deviation and ANOVA were employed to analyze the results. The overall scores obtained by the respondents on the transformational teaching scale suggest minor differences between the respondents across the streams. The F-ratio for overall transformational teaching as well as for the dimensions of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration was not statistically significant. However, minor differences were observed in relation to the four dimensions of transformational teaching as perceived by students across the streams. Overall, students, considered their teachers transformational in spite of the major transitions in the teaching methodology.*

**Keywords:** COVID-19, teaching methods, online classes, transformational teaching, online teaching.

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The year 2020 was a life-altering year which turned lives upside down. COVID-19 and the resulting pandemic affected every aspect of life, causing untold misery and uncertainties. However, the corona virus, ensured the human race use new and novel ways to maintain communications while ensuring that the standard operating procedures (SOPs) were followed. The 'new normal' witnessed a gamut of changes which included working from home, restricted outdoor activities and fewer and only indispensable social gatherings. Phrases like curfews and lockdowns become common words.

The COVID-19 pandemic caused unprecedented changes in the field of education. Educational institutes across India closed their campuses and discontinued classes in person. A major overhaul of the teaching-learning methodology paved way for an out-of-box, revolutionary method of digital teaching and learning.

The pandemic became a precursor for the educational fraternity to embrace digital learning (Dhawan, 2020). The teaching fraternity, who before the pandemic were ill-equipped to the online mode of teaching, had to recreate, redevelop and revisit their teaching methodologies in order to maintain continuity of the teaching-learning process (Sari & Nayir, 2020).

This change has resulted in a number of relatively new and unconventional methods of teaching to emerge. One among them is 'transformational teaching', a term first employed by Slavic (2005, 2006a), to describe the viewpoint that instructors could bring about a meaningful change in students' lives. The main emphasis is on enhancing a student learning and personal development by employing group-based activities in order to experience the key concepts of the course and thus fostering life-changing experiences.

Several ideas underlying contemporary approaches are essential elements of transformational education.

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The constructivist belief that learning occurs best when students are actively engaged in the discovery process (Piaget 1926) and the social constructivist belief that educational activities are more effective when they entail social interaction are two of these concepts (Bruner and Haste 2010; Vygotsky 1978, 1986). Other theoretical viewpoints, often overlooked in current approaches to learning and classroom instruction, still contribute to the conceptual foundation for transformative teaching. These viewpoints are based on the literatures on social cognition theory (Bandura 1986, 1993, 1997, 2012a, b; Schunk and Mullen 2012; Schunk and Pajares 2009), and transformational learning theory (Bandura 1986, 1993, 1997, 2012a, b; Schunk and Mullen 2012; Schunk and Pajares 2009). (Cranton 2006; Dirkx 1998; Erickson 2007; MacGregor Burns 1978; Mezirow 1978, 1991, 1994, 1995, 1996, 2000; Taylor 2007), intentional change theory (Boyatzis 2006a, b, c, 2009), and transformational leadership (Avolio & Bass 1995; Bass 1985; Bass & Bass, 2008; Bass & Riggio 2006, 2010; Rafferty & Griffin 2004).

The goal of transformational teaching is to increase students' mastery of important course concepts while transforming their learning-related attitudes, values, and beliefs. This process incorporates progressive relationships amongst teachers, students, and a mutual body of knowledge for fostering students' learning and personal growth. The teachers are ascribed to the position of intellectual coaches entrusted with the task of teamwork through an alliance with the students. The teachers enable the students to attain the key course concepts, and encourage personal development through the enhancement of their inclination toward learning. The instructors carry on this task by implementing the core methods of transformational teaching like establishing shared experiences; intellectually challenging and encouraging students; personalized attention and feedback; experiential lessons transcending the classroom boundaries and fostering ample opportunities for pre-reflection and reflection.

The transformational teaching paradigm focuses entirely on moving beyond rote memory and lecture. Their philosophy is serving the student's needs, ensuring an environment endorsing higher levels of learning and production (Braun-Wanke et al., 2015; Day et al., 2016; Judge & Piccolo, 2004; Pounder, 2014; Shanker &

Sayeed, 2012; Shatzer et al., 2014; Slavich & Zimbardo, 2012; Taylor, 2017).

Transformational teachers stretch their boundaries beyond the conventional, standard teacher-student relations by being an encouraging medium for the student's growth and success, challenging the preexisting labels of students' abilities and disabilities to learn (Braun-Wanke et al., 2015; Day et al., 2016; Judge & Piccolo, 2004; Pounder, 2014; Shanker & Sayeed, 2012; Shatzer et al., 2014; Slavich & Zimbardo, 2012; Taylor, 2017).

Transformational teaching lays stress on changing the mindset from content-focused to inspiring students to participate in the learning process. Students are involved in real-world problems debates, problem-solving, and creativity. Thus, providing them a platform to express themselves emotionally and reinforce their socio-emotional skills.

Beauchamp and colleagues investigated the effects of transformational teaching in the context of physical education and found that transformational teaching increases student's motivation and positive beliefs toward physical activity (Beauchamp & Morton, 2011).

The onset of online classes triggered a host of changes in the way teaching was conducted. The onus was now on the instructors to make their classes more interactive and interesting. Innovation to garner student's attention and maintain it, thus become the sole prerogative of the teachers. Various unconventional methodologies like presentations, online whiteboards, live online classes, pre-recorded video lectures, flipped classrooms, game-based teaching, class blog, live chatting, discussion boards, and forums were adopted via online platforms to engage in teaching. Nonetheless, online teaching had its share of initial challenges and issues that still exist in terms of network issues, availability of devices, electricity, lack of concentration among students, etc., the teachers and the students alike have attuned to this new form of instructional method.

Bringing about a change in the teaching methodology is a difficult task, but not impossible. Considering the fact that many of the teachers were not technically proficient, they redacted themselves to handle these unforeseen circumstances (Pillai et al., 2021). The

teachers faced the challenges of these unprecedented times with the much-needed motivation and enthusiasm to carry on the task of teaching, managing to switch from offline to online modes, physical classrooms to zoom meets, seminars to webinars.

The reshaping of teaching methodologies that were assimilated into the teaching process is a minor step towards the beginning of the transformational teaching process. With this background, the current study makes a modest attempt to assess the perceptions of the students regarding a relatively unexplored territory i.e., transformational teaching in the backdrop of the pandemic with reference to online classes.

### Objectives

1. To assess the extent of student's perceptions regarding transformational teaching in relation to online classes among female students.

2. To measure the differences in scores of the students across the three streams regarding the four dimensions of transformational teaching scale: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

### Hypothesis

H<sub>ai</sub>. There will be differences in the perceptions of female students regarding transformational teaching in relation to online classes across the different streams.

### Method

**Sample:** A total of 293 female students of Carmel college of Arts, Science and Commerce for women, Goa were selected for the study. The sample consisted of 119 female students from the Commerce stream, 50 from the Science stream, and 124 from the Arts stream, in the age group of 18 to 23 years. The chosen sample is a part of a pilot study to assess the feasibility of studying transformational teaching and to further enhance online teaching based on the four dimensions of the scale.

### Materials:

The transformational teaching questionnaire by Beauchamp et al. (2010) was used to assess the student's perceptions regarding transformational teaching. The responses are recorded on a 5-point rating scale, ranging from 'not at all' (0), 'once in a while' (1), 'sometimes' (2), 'fairly often' (3), and

frequently (4). The scale consists of 16 items and four subscales to measure the four transformational teaching dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The dimension of idealized influence is demonstrated when the teacher develops rapport and influences his students by displaying respect, trust, confidence and views them as individuals (Avolio et al., 1991). Inspirational motivation entails formulating, articulating, and sharing a vision or goal for the students in terms of the course content and various assessments for the curriculum, envisioned with optimism and enthusiasm (Kark et al., 2003; Pounder, 2003). Intellectually stimulation is exemplified when teachers challenge their students in their interactions with them (Bolkan, Goodboy, & Griffin, 2011). The dimension of intellectual stimulation is set into motion when the transformational teacher promotes problem-solving abilities, encourages out of the box thinking, boosts the intellectual capacities, and encourages challenging of previously held assumptions by the students (Bass, 1985; Bolkan & Goodboy, 2011; Dionne et al., 2004; Kark, Shamir, & Chen, 2003; Pounder, 2003). Individualized consideration entails treating the students as individuals and not just a class or group of students. Teachers need to put in efforts to know their students personally, their goals, strengths, weaknesses, and future goals (Dionne et al., 2004; Walumbwa, Peng, Lawler, & Kan, 2004). The items' factor loadings ranged from .75 to .95, all statistically significant ( $p < .01$ ). The four subscales demonstrated good internal consistency, with Cronbach's alpha values ranging from .85 to .90, AVE values ranging from .77 to .87, and rho values ranging from .83 to .96. The four subscales were found to be highly correlated  $.83 > r > .74$  (Alvarez et al., 2018). The scores for each dimension ranged from 0-16. The subscales are summed to yield total transformational teaching scores between 0 and 80. The higher the scores obtained, the stronger is the perceived transformational style of the teacher.

**Procedure:** The students were selected randomly from across the three streams of Arts, Commerce, and Science. Google forms were utilized for data collection. The students were assured of the confidentiality of their responses.

## Results &amp; Discussion

Table 1: Mean and standard deviation scores across streams interms of the dimensionsof the transformational teaching scale

		N=293	Mean	Std. Deviation
Idealized influence	Arts	124	15.73	3.242
	Commerce	119	15.34	3.704
	Science	50	15.30	3.430
	Total		15.50	3.462
Inspirational motivation	Arts	124	15.59	3.414
	Commerce	119	15.32	3.925
	Science	50	15.10	3.856
	Total		15.40	3.697
Intellectual stimulation	Arts	124	15.85	3.506
	Commerce	119	15.39	3.751
	Science	50	15.40	3.709
	Total		15.58	3.636
Individualized consideration	Arts	124	16.00	3.503
	Commerce	119	16.00	3.846
	Science	50	15.74	3.917
	Total		15.96	3.705
Transformational teaching	Arts	124	63.17	12.792
	Commerce	119	62.06	14.584
	Science	50	61.54	14.275
	Total		62.44	13.766

With the transition to online classes due to the pandemic, student's learning and teachers teaching methodology have resulted in tremendous changes. The results with reference to table 1 indicate that there are very small differences observed with respect to the mean scores of students across the three streams of Arts, Commerce and Science on the three dimensions of the transformational teaching scale i.e., idealized influence, inspirational motivation, and intellectual stimulation. The mean scores of the students from the Arts stream on the dimension of idealized influence were 15.73, for the Commerce 15.34 and the Science students 15.30, whereas on the dimension of inspirational motivation the mean scores for the Arts students' were 15.59, for the Commerce students 15.32 and the Science students obtained a score of 15.10. For the dimension of intellectual stimulation, the mean scores of the students for the Arts, Commerce, and Science streams were 15.85, 15.39, and 15.40, all the scores fall in higher range.

On the dimension of individualized consideration, there were slight differences with regard to the mean

scores obtained across the streams. The students from both the Arts and the Commerce streams obtained a mean score of 16.01, whereas the respondents from the Science stream had a mean score of 15.74, indicating that the respondents from the Arts and the Commerce streams consider their teachers marginally higher on the dimension of individualized consideration in comparison to the respondents belonging to the science stream, suggesting that their teachers are perceived as taking a genuine interest in their personal as well as psychological needs, along with a display of a high level of care and concern. Even in the context of online classes, the students from the Arts and Commerce stream felt that their teachers were wholeheartedly interested in their well-being and personal growth, hence displaying the dimension of individualized consideration.

The overall scores obtained by the respondents on the transformational teaching scale suggest minor differences between the respondents across the three streams, with the respondents from the Arts stream scoring 63.17, the Commerce 62.06, and the Science

stream standing with a score of 61.54. These results indicate that the respondents irrespective of the streams perceive their teacher's style to be transformational. Since no teaching took place through offline/ physical mode, the students still considered their teachers transformational with reference to the online classes. The advent of online teaching and revamping of the teaching methodologies has in a way set in motion the process of transformational teaching.

Research confirms that transformational teachers can empower their followers/ students and increase their motivation (Bolkan & Goodboy, 2010; Pillai & Williams, 2004; Pounder, 2003). One way the teachers could engage in this behavior would be to remodel the classroom milieu and the way teaching takes place (Bolkan, Goodboy, & Griffin, 2011).The intellectual stimulation and individualized consideration elements of transformational teaching are significant elements

for student motivation (Pounder, 2003; Morton et al. 2010).Morton et al. (2010) in their study concluded that the students affirmed therelevance of intellectual stimulation and asserted that the absence of such stimulation leads to decreased interest in the subject. Some students also maintained that they put in extra effort when the teacher gave them individualized attention (Morton et al., 2010).

The transformational teacher will set an example with his charisma, excellent communication skills, and personal accomplishments to pave way for the students to emulate these very same characteristics and imbibe them in their pursuit of the shared vision (Bolkan & Goodboy, 2009; Pounder, 2006). The teachers communicate their high expectations to their students and motivate them to surpass their limits (Morton, Keith, & Beauchamp, 2010).

**Table 2: ANOVA table for transformational teaching scores across the streams**

		Sum of Squares	df	Mean Square	F	Sig.
Idealized Influence	Between Groups	40.036	2	20.018	1.678	.189
	Within Groups	3459.213	290	11.928		
	Total	3499.249	292			
Inspirational motivation	Between Groups	71.090	2	35.545	2.630	.074
	Within Groups	3918.985	290	13.514		
	Total	3990.075	292			
Intellectual stimulation	Between Groups	76.540	2	38.270	2.932	.055
	Within Groups	3784.662	290	13.051		
	Total	3861.201	292			
Individualized consideration	Between Groups	58.807	2	29.404	2.159	.117
	Within Groups	3949.780	290	13.620		
	Total	4008.587	292			
Transformational teaching	Between Groups	969.591	2	484.796	2.586	.077
	Within Groups	54362.613	290	187.457		
	Total	55332.205	292			

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In order to compare between and within the stream differences, the F-ratio was calculated. Table 2 represents the F-ratio for transformational teaching scores across streams. The ANOVA table indicates that the F-ratio was not statistically significant for overall transformational teaching with a F-value of 2.58. On the three dimensions of inspirational motivation, individualized consideration and idealized influence, the F-value was 2.586, 2.159, and 1.67 respectively.

However, for the dimension of intellectual stimulation, the obtained F-ratio was 2.932, significant at 0.5 level, indicating that across the streams there was a significant difference in the student's perception of the intellectual stimulation they received from their teachers. In spite, of the initial hurdles and technical difficulties, the students still perceived their teachers as transformational. These findings are also corroborated by Bolkan, Goodboy, and Griffin (2011), who in their study found that if the teachers were able to intrinsically motivate their students, there was a likelihood of the students adding to their knowledge through deep learning rather than through a rote learning approach. Teachers can utilize the four dimensions of the transformational teaching paradigm to enhance their relationship with their students and to promote learning and personal growth (Slavich & Zimbardo, 2012).

### Conclusion

With COVID-19 changing the educational scenario drastically and compelling the teaching fraternity to switch to the online mode of teaching, a lot of transformations took place in the way teaching was conducted. Transformational teaching could further enhance the online teaching process by addressing the lacunae resulting from the same. The teaching fraternity could benefit immensely in terms of the four dimensions of the transformational teaching paradigm and revisit their teaching methodologies in accordance to the needs of their students. Though not very significant results were obtained regarding the perceptions of the students across the streams, there were minor differences observed in relation to the four dimensions of transformational teaching. For subjects involving practical components and calculations, online teaching does not seem viable. In the future digital platforms addressing these issues might make teaching these subjects much more conducive. A longitudinal study comparing students exposed to both offline and online modes of teaching would shed more light on transformational teaching. One major impediment of the study was that the sample consisted of female students, future studies with both male and female participants would lead to better generalizability of results.

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# Sexual Harassment Experiences of Undergraduate Students of Kathmandu: A Qualitative Study

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Received: 10 November 2021  
Accepted: 10 December 2021

## Abstract

*Despite the extensiveness of sexual harassment in Nepal, the studies addressing the subjective experiences of the victims are relatively less. This paper reports the qualitative data from a study of sexual harassment of 100 undergraduate students (80 female) from ages 18 to 24 ( $M=19.5$ ,  $SD=1.40$ ) of different colleges of Kathmandu collected through convenience sampling. Data was collected through the use of semi structured interview schedule. Thematic analysis was employed to generate the themes from the responses rendered by participants to the open-ended questions. Three overarching themes emerged from the analysis: experience of the incident, effects of harassment on mental health and education, and dealing with the consequence of harassment. Three sub-themes were subsumed within the first theme, namely: i) characteristics of harassment, ii) perception of harassment and immediate reactions, and iii) contextual factors surrounding harassment. In addition, the second theme revealed the consequences of sexual harassment on the psychological well-being and academic performance of the students. Finally, participants reported employing several coping mechanisms to deal with the consequences of sexual harassment, which are broadly categorized into interpersonal and intrapersonal coping strategies and subsumed within the third theme. These findings are discussed in the light of the existing relevant literature, and their practical implications are discussed in the paper.*

**Keywords:** Sexual harassment, undergraduate, Nepal

Sexual harassment (SH) an uninvited and sexually motivated verbal or physical behavior that may be considered invasive by the recipient (Sexual Harassment, 2020), is a common form of violence (Campbell, Raja, & Grining, 1999). SH is experienced by both women and men (Neupane & Chesney-Lind, 2013; Sivakumaran, 2007) and poses itself as a global problem (Neupane & Chesney-Lind, 2013; Parish, Das & Laumann, 2006; Lee, Song, & Kim, 2011; Timmerman & Bajema, 1999). SH is pervasive in many areas, including sports (Marks, Mountjoy, & Marcus, 2012; Fasting, Brackenridge & Sundgot-Borgen, 2004), medical training (White, 2000), nursing practice (Celik & Celik, 2007), public transport (Gekoski, Gray, Adler

& Horvath, 2017), and school and colleges (Hill & Kearn, 2011; Joseph, 2015). So far, the extensiveness of SH in Nepal is not thoroughly documented. Nevertheless there are few studies that shed light on its ubiquitous nature (Action Aid, 2011; Neupane & Chesney-Lind, 2013; Thapa & Deuba, 1994). Findings report that ninety percent of the women in Kathmandu, Nepal ( $N=283$ ) had experienced at least one incident of SH in public transport in Kathmandu (Neupane & Chesney-Lind, 2013), while 28.9% of nursing students experienced harassment in the clinical setting (Gaihre, Regmi & Shrestha, 2018). Also, 79.6% of female healthcare students had experienced it once, among which 17.3% were harassed more than four times in the six months (Mishra & Lamichhane, 2018).

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The experience of SH has adverse effects on students' mental and physical well-being (AAUW, 1993; Duffy, Wareham & Walsh, 2004; Mishra & Lamichhane, 2018) and their education (AAUW, 1993; Duffy, Wareham & Walsh, 2004). For example, students affected by SH reported losing self-confidence, declining grades, and have thoughts about changing school and negative psychological functioning and avoidance behaviors (Duffy, Wareham & Walsh, 2004). Sexual harassment is also linked with depressive symptoms (Houle, Staff, Mortimer, Uggem & Blackstone, 2011), poor job satisfaction, a sense of safety at work, and increased turnover intentions (Vargas et al., 2020).

To combat harassment, people choose various methods including, finding psychological support, confrontation with the harasser (Vohlidalova, 2015), remaining silent (Adhikari et al., 2020), normalizing (Phillips, 2019), ignoring, and formal help-seeking (Scarduzio, Sheff, & Smith, 2017) even though reporting and complaining are pretty rare (Wasti & Cortina, 2002). Sexual harassment awareness and preventive education can positively influence the coping of sexual harassment victims (Kang, 2018).

Current literature in Nepal shows a striking paucity of qualitative studies that delve into the multifarious facets of SH of Nepali students in a nuanced manner, especially about the behaviors that constitute harassment, immediate responses to harassment, its effect on mental health and education, and common ways employed to combat its adverse impacts on psychological wellbeing and education.

Our qualitative study aims to fill this research gap and explore the multidimensional experiences of Nepali students who have faced sexual harassment.

### Method

**Study Design:** We used a qualitative study design to explore the SH experiences of undergraduate students. We have chosen this method to understand the complex, multifaceted, and understudied issue of sexual harassment in Nepal.

**Sample:** Participants were chosen through a convenience sampling procedure. All participants studying in seven colleges of Kathmandu, Nepal, were requested to participate, and 100 (80 female, 20 male) students provided consent to participate. The age ranged from 18 to 24 ( $M=19.5$ ,  $SD=1.40$ ).

**Data Collection:** We devised a semi-structured interview schedule to collect descriptive information about the respondents and their experience of SH. It

contained open-ended questions regarding the nature of harassment, thoughts, feelings, and reactions in the immediate aftermath, perceived long-term consequences on psychological well-being and education, and reasons for non-disclosure of harassment experience. Similarly, frequency of harassment, age of first harassment, and age and gender of harasser were also taken.

**Data Analysis:** We employed thematic analysis propounded by Braun and Clarke (2006) for discerning, analyzing, and deriving patterns from the participant's words. For the authentic representation of the sample's experience of the harassment, an inductive approach was employed so that our analysis was rooted in data rather than guided by any "pre-existing coding frame or the researcher's analytic preconceptions" (Braun & Clarke, 2006, p. 83). We familiarized ourselves with the data by reading it three times and by taking ample notes. We developed initial codes manually by highlighting the relevant and potentially useful phrases in the dataset with colors, combined and collated the codes into themes based on their commonality, and analyzed themes until they reached the level of saturation. After integrating themes and sub-themes into a thematic map, we obtained a final version that ensured the inclusion of all the vital information. The critical realist perspective guided our analysis of the data. As researchers, we were cognizant of reflexivity in all phases during our data analysis. We recognize our tendency to empathize and sympathize with the voices of the victims and acknowledge a sense of moral outrage towards the perpetrators. However, as researchers, we have collaboratively made rigorous attempts to check and reduce its influence during data analysis and write-up.

### Results

Three overarching themes emerged from the data after applying thematic analysis. These super-ordinate themes are 1) experience of the incident, 2) effect of harassment on mental health and education, and 3) dealing with the harassment. Additionally, three sub-themes are subsumed within the first theme: i) characteristics of the harassment, ii) perception of harassment and immediate reaction, and iii) contextual factors surrounding sexual harassment. Similarly, the theme 'dealing with harassment' branched off into two sub-themes: i) Interpersonal coping strategies and ii) intrapersonal coping strategies. Relevant verbatim quotes from the transcripts are used to enrich the analytic context and clarity.

**Theme 1: Experience of the incident**

The extensiveness of SH ranged from suggestive remarks to heinous acts of unsolicited groping. Ninety-five percent of participants reported experience of SH, and half of them were harassed repeatedly. The recurrent nature of SH in its myriad forms sheds light on the diverse spectrum of vulnerabilities and repercussions faced by the victims. This theme branches off into three sub-themes: characteristics of SH, perception of SH and reactions of affected persons in the immediate aftermath, and the context of the experience.

***Characteristics of the Harassment***

The most common form of SH reported by participants included inappropriate physical contact, obscene and suggestive gestures/ remarks, leering and ogling in an unwelcome manner, and invasion of personal, physical boundaries in public places.

Bothersome and unsolicited touches included groping and grabbing in private parts. The profusion of remarks such as *"It was an uneasy touch," "I was touched in an incorrect way," "grabbed my hands," "He touched me on the butt,"* etc., hint at the blatant contravention of human worth and fundamental morality. The incidents of unwelcome and disconcerting touches in public transport were strikingly high. Some female respondents remarked, *"He was holding my hands instead of holding onto the bus, many times they grope us whenever the bus jerks, all of my friends have faced it, not just me."*

Infringement upon one's personal space with sexual insinuations that verged on assault was frequently reported. A twenty-two-year-old female shared the experience of being molested by a relative who was standing "invasively closer" and "giving pressure for sexual relationship." One respondent expressed the predicament: "My brother was watching video on mobile of that person. I was watching it too and that person was behind me. He started to touch my breasts and took me closer to his body."

Teasing, uttering obscenities, passing "bad comments" on physical appearance persistently, and other forms of verbal harassment were very common. Such behaviors were instantiated within school premise by peers as well as in the public space by the strangers. Peer harassment is usually normalized and considered as "non-issue" by some participants. Although extremely rare, verbal abuse by a teacher was reported by a participant. For example, a 21-year-old girl

experienced it while asking questions in a class which bordered on harassment. Similarly, looking with "blank eyes" and staring "in a bad way" were considered extremely disturbing, but most of the victims found it difficult to confront the harasser during such situations due to the inherent ambiguity of such glances.

***Perception of harassment and immediate reactions***

Some respondents reported that they were unable to label the incident as sexual harassment spontaneously. Instead, they construed the ambiguous behavior as "an unintended mistake." One said, *"I thought it might be just my imagination. So, I ignored it. Again I felt very uncomfortable with his activities. That is when I knew he was a creep..."* In a similar vein, harassment at an early age engendered total incomprehension of the intention of the harasser and the severity of potential abusive behavior: *"I was unknown about what he was doing to me. However, as I grew up, I understood."* Nevertheless, the majority of the harassment victims discerned the subtleties of sexual harassment immediately. Their experiences of harassment led to varying reactions that fell along with the gamut of negligible discomfort to catastrophic emotional turmoil in the incident's immediate aftermath. The most common emotional responses include anger, fear, shock, and disgust. Fear responses ranged from *"I was a bit scared"* to *"Afterwards, I was afraid of everybody."* Some reported being unresponsive and emotionally numb: *"I was blank. I knew I should refuse."* Some of the victims confronted the perpetrator. Confrontation includes angry gestures, physical and verbal confrontation, as these remarks *"I scratched on his hand," "I threw him out of the bus," "I shouted and scolded him."* Some of the respondents said they ignored it and "acted as if it didn't happen."

***Contextual factors surrounding sexual harassment***

The most common setting of harassment was public vehicles, followed by public parks, bus stations, night club, and cinema halls. Seventy-four percent of the victims had undergone multiple harassments, and the first harassment occurred between the ages of 9 to 20. Men perpetrated 90% of sexual harassment in both male and female victims, and the perceived age of the harasser ranged from 14 years to "approximately 45 years". Respondents consider children and teenage girls to be the most vulnerable population, especially those belonging to low socio-economic backgrounds. The role of power and status of the harasser was not found to be particularly relevant to the harassment.

### **Theme 2: Effects of harassment on mental health and education**

Harassment impinged on the long-term mental health of some respondents. Victims reported increased susceptibility to depressive symptoms, recurrent emotional distress, anxiety, and a pervasive sense of loneliness. Suicidal ideation was rare; one respondent remarked, "...victim is prone to feel alone, lose every hope and choose the way of suicide". Apart from a persistent fear of strangers ("I was afraid of going anywhere."), the participants revealed recurring flashbacks of the incident ("I couldn't forget it, it was repeating in my mind again and again") and self-blame incurred by unending "Why me?" questions. Respondents also reported a feeling of inferiority and low self-esteem induced by self-blame ("I felt that I was in the wrong, maybe I presented myself sexually...this made me feel ashamed of myself for long").

Furthermore, enduring fear and a sense of disdain "towards all men" were also found, leading them to speculate imminent interpersonal problems in a future romantic relationship. Some went through a sense of disillusionment with the system and grew apathetic. One said, "After the incident, I came to think about the present condition of our country... everyone is free to do any kind of crime." Interestingly, the ones who confronted the harasser were less depleted by the incident, as evidenced in one remark "I was happy with myself. I didn't sit and watch. I talked back and fought for my dignity." Despite the foregoing negative impacts on some victims, some of the harassed came out unscathed psychologically.

Inability to concentrate on studies (sometimes due to sensory re-experiencing during studies), loss of interest in books, a decline in studies, and flunking classes were some of the corrosive effects. For example, one respondent reported, "I could not concentrate; the whole thing would hit me through mentally." However, the majority of them stated that the incident did not affect their studies.

### **Theme 3: Dealing with the consequence of the harassment**

The coping mechanism differed widely among the respondents. Some coping strategies mitigated the degree of psychological distress while others deteriorated the prospect of mental well-being while some had a neutral effect. This theme has been differentiated into two sub-themes:

#### ***Interpersonal coping strategies***

Disclosure to friends and family was a predominant coping strategy. Our participants have reported that the sense of belonging during the "demoralized mental state" wrought by harassment had positive outcomes. The victims shared their experiences about the incident, usually with their close friends, sisters, or mothers. "I shared my experiences with my close friend and sister, and it helped me a lot." "I consulted with my mom. She consoled me." Motivating the victims to take firm actions against harassment in the future had bolstered their self-confidence and sense of self-worth. A significant minority of the victims "did not feel understood" when they shared it with others and were further disheartened, as exemplified by this response: "Instead of condemning the victims and taking action against him, my sister-in-law suggested me to stay away from such people."

Some victims did not share about the experience due to the fear of being blamed (e.g., "I thought my mother would blame me for hanging out with boys."), perceived lack of retribution against offenders (e.g., "I felt nobody would do anything to him, so there was no point saying..."), and normalization of the incident ("I felt it was not a big issue to be created."). Internal hindrances to sharing included shyness, fear, and the perceived awkwardness in articulating the issues surrounding sexuality in our socio-cultural milieu. "I felt awkward sharing these kinds of things with parents." Perception of unavailing response was a crucial factor in non-disclosure. "I thought they would not respond strictly, and they will not take action against him." Only one respondent sought the help of a professional counselor.

#### ***Intrapersonal Coping***

The victims employed a wide range of intrapersonal coping strategies; some facilitated their growth while others curtailed their mental well-being and exacerbated the impacts of the experience. The prominent coping strategies were mental distraction and self-motivation -best summed up in the responses such as "I tried to refresh and entertain myself" and "I watched some motivational videos and engaged in things which make me feel better." Self-defense training and meditative practices reinforced their sense of self-worth and assuaged the distress engendered by harassment. Similarly, a resolution to stand firmly against all harassment in the future helped bolster their self-confidence: "I will not let that happen again; I will speak up for myself and other

victims.” Confronting the harasser and calling him/her out was regarded highly adaptive by the victims, helping them not to “take on the identity of a victim but a fighter.” Suppression was employed in many instances, as these responses suggest: *“I just ignored that teacher and tried to bury the whole issue,” “I tried to think of it as a minor problem,” and “I tried to forget the situation.”*

Similarly, the use of alcohol to temporarily restrict intrusive thoughts was another form of suppression. One male respondent said, *“I used my time to drink and started to forget those incidents...It worked to some extent.”* Avoidance of the harasser and the specific settings perceived as a source of potential harassment was observed. One respondent remarked, *“I decided never to visit any male doctors.”* Optimism and the refusal to harbor disdain against all men were positive strategies: *“I tried to be optimistic that all men are not the same.”* In some cases, rumination led to self-blame in many cases whereas reframing the issue through a new perspective helped break free of self-blame. One respondent said, *“Slowly and steadily, I realized that it was not my fault...it is so liberating to realize that.”*

### Discussion

This study contributes to our understanding of the subtlety of the subjective experience of sexual harassment of the students of Nepal, characteristics of harassment, its effect, and the victims’ coping strategies.

The prevalence of sexual harassment revealed in our study is in congruence with previous studies conducted in Nepal. For example, several studies have reported a high prevalence of harassment of women in public transport (Neupane&Chesney-Lind, 2014; Mishra & Lamichhane, 2018), workplace (Kunwar et al., 2014), school area (Gyawali, 2020), and clinical setting (Gaihre, Regmi, & Shrestha, 2018).

Unsolicited physical contact, infringement on personal space, leering and ogling, and obscene gestures and remarks were the most common forms of SH reported by our participants. Rosenthal, Smidt, and Freyd (2016) documented that most of the harassment is gender harassment (59.1% followed by 6.4% unwelcomed sexual attention, 4.7% unwanted touching, and 3.5% sexual coercion). Gender harassment includes sexist or sexually offensive remarks, gestures, or pictures (Fitzgerald, 1990). Our study does not concur with the finding of Rosenthal, Smidt&Freyd (2016), specifically in regard to the prevalence of gender

harassment, since the most prevalent form of sexual behavior found in our study was unsolicited touching, especially in public transport. This difference may be partially explained by the findings that characterization of the incident as sexual harassment was significantly low (about seven times) in case of gender harassment (Holland & Cortina, 2013) and partly by the lack of vocabulary in the Nepali language to depict the subtle harassment behaviors (Neupane\_&\_Chesney-Lind, 2014).

With regard to its preponderance in public transport, Valentina’s\_(1990) construal of spatial constraints imposed on women as “spatial expression of patriarchy” (as cited in Neupane\_&\_Chesney-Lind, 2014) is in part explicative of hostility displayed by men towards women in the public sphere (Bowman,1993;Neupane &Chesney-Lind,2014). Similarly, perpetrator’s perception of the environment as permissive/conducive to impunity has been implicated in the increased likelihood of committing sexual harassment (Pryor, LaVie, & Stoller, 1993;Moore &\_Mennicke, 2020). Due to lack of immediate confrontation with and punitive action against the harassers in public vehicles, they might have deemed it a permissive environment. The higher incidence in public transports can have also resulted because of “proximity and anonymity, which, in turn, results in a high level of sexual harassment with very little risk of social and legal consequences” (Gyawali, 2020, p.15).

Anger, fear, shame, and disgust were the most common immediate reactions of the victims in our study. It is consistent with the previous finding that showed anger (79.5%), humiliation (47.5%), fear (45.5%), and trauma (11%) were the most prominent emotional reactions of the victims (Lamichhane & Mishra, 2018). Studies have indicated that victims felt a sense of fatigue, discouragement, degradation, and lack of safety in the immediate aftermath of harassment (Scholcoff et al., 2020); some of our participants reported that these feelings persisted into the future, sometimes culminating into major psychological problems.

The psychological effects of harassment reported in our study ranged from negligible distress to recurrent depressive symptoms. Several studies have reported stress, anxiety, depression, psychological impairment (Eom, Restaino, Perkins, Neveln, & Harrington, 2015), and diminished emotional wellbeing as the consequences of harassment (Harned et al., 2002; Lim & Cortina 2005; Mushtaq, Sultana & IqraImtiaz, 2015; Lamichhane\_& Mishra, 2018). Although the severity

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of stress and anxiety was different among subjects, their prevalence in the aftermath of harassment was extremely common after unwanted touch, in concordance with a previous study (Mushtaq, Sultana & IqraImtiaz, 2015). The negligible distress reported by some respondents of our study was analogous to that reported in other studies (Fasting, Brackenridge, & Walseth, 2002; Duffy, Wareham & Walsh, 2004). Lack of unequivocal knowledge of being victimized and the characterization of harassment behavior as merely a “dysfunctional habit” brings about a significantly low level of distress (Schneider & Philips, 1997).

Furthermore, specific harassment behaviors may have a differential array of consequences in different people, depending on the mediating role of the appraisal (Duffy, Wareham & Walsh, 2004). Hence, the victims in our study who did not appraise the incident as distressful were significantly less affected by the harassment, since not feeling distress despite being harassed did not engender any impairment in psychological functioning (Duffy, Wareham & Walsh, 2004). In addition, suicidal ideation, which is linked with sexual harassment (Bagley, Bolitho & Bertrand, 1997), was virtually absent in our study, although a possible link between the harassment and suicidal tendencies was hinted at by one respondent. Absence of the reports of suicidal ideations in current study may be partly explained by the stigma surrounding suicide and the fear of being tagged “suicidal” or “weak-willed” (Rimkeviciene et al., 2015).

Educational problems reported in our study were lack of concentration resulted from sensory re-experiencing of the incident, intrusive thoughts during learning, and failing classes. Studies have reported various detrimental effects of SH like lower grades, low academic self-esteem, decreased concentration, and attention difficulty in the classroom (OSSTF, 1995; Houston & Hwang, 1996). Sexual violence had also been linked to dropout (Mengo & Black, 2016), was not reported in our study. Although we found the adverse effect of harassment on education in a few cases, we did not focus on specific harassment behaviors in academic problems.

The widely reported interpersonal coping mechanism in our study was disclosure to friends and family members. In tune with our findings, several studies have indicated the higher propensity of victims to disclose about the incident to the informal support provider (friends and family) than to the formal

authorities (Filipas\_& Ullman, 2001; George, Winfield & Blazer, 1992). Formal reporting was non-existent partly due to the perceived procedural hassles in filing complaints and police investigations (Neupane\_& Chesney-Lind, 2014) and partly due to the normalization of the harassment behaviors (Neupane\_& Chesney-Lind, 2014; Mellgren et al., 2018). The respondents of our study who disclosed SH experience to friends and family received both positive (for example, emotional comfort and empathy) and negative responses (for example, victim-blaming and disbelieving the account); this is reflected in the previous studies (Filipas\_& Ullman, 2001; George, Winfield & Blazer, 1992). Lindquist and McKay (2018) reported that sharing SH experience with family members has a universally positive reaction while revealing it with colleagues had mixed outcomes. However, disclosure with family members was not an invariably positive approach in our study, primarily due to the victim’s perception of not being understood by the parents. The prevalence of socio-cultural taboos regarding sex-related activities can partly explain the conversational gap between parents and children in Nepal\_-. Several intrapersonal coping mechanisms were used, such as distraction, self-motivation, avoidance, optimism, ruminative thinking, normalizing, and confrontation. Studies have also reported the use of passive emotion-based coping strategies such as downplaying, sense of denial, ignoring, avoiding, and self-blaming (Scarduzio, Sheff & Smith, 2018) and the active coping mechanism like self-motivation, resolve to be optimistic, advocacy seeking in dealing with the effects of sexual harassment (Scarduzio, Sheff & Smith, 2018; Wasti, & Cortina, 2002). Avoidance coping has been reported among people from patriarchal societies (Cortina & Wasti, 2005). In addition, suppression, a commonly employed coping mechanism by our respondents, is usually regarded as an unsuccessful coping mechanism for victims of sexual harassment (Feinauer, Mitchell, Harper & Dane, 1996). On the contrary, confrontation with the harasser was a helpful problem-based coping mechanism employed by some victims. Our study shows that confrontation played an instrumental role in enhancing self-dignity in some female victims. Studies suggest that confronting the harasser can be a successful coping strategy for female victims (Pape & Arias, 1995). Humor, one indirect coping mechanism (Scholcoff et al., 2020), was not reported by any of the participants in our study. This result may be partly because women usually use this strategy to evade

confrontation with the high-status perpetrator in the workplace (Lindquist & McKay, 2018).

This study has clear, practical implications in raising awareness about the most likely settings of harassment and the most vulnerable segments of society. The current study furnishes a clear and conclusive implication to the concerned authorities and policy-makers about public transportation so that swift interventions would be carried to mitigate the pervasiveness of harassment in public transport. Furthermore, the interventions can be tailored in accordance with the safety concerns of women of all ages who travel by public transport.

Our study has some limitations. Inaccuracies of memory may have occurred because many respondents recollected the incident that happened in the distant past. Furthermore, males were underrepresented in the survey. In cases of multiple incidents of harassment, the study has not delved into the ways cognitive-affective reactions as well as overall impact varies with each subsequent harassment experience. Despite the ample documentation of the magnitude of online harassment (Jones, Mitchell & Finkelhor, 2012), none of the respondents in our study reported online harassment.

Further research can focus on the nature of harassment on the internet. Future qualitative studies should be conducted to explore the relationship between the intensity/frequency of harassment and the coping strategies, while longitudinal studies can be conducted to discern the effectiveness of different coping

strategies in dealing with sexual harassment. Similarly, further studies can also investigate whether or not the psychological distress incurred by sexual harassment meet the criteria for psychiatric diagnosis. Lastly, the nature and consequences of sexual harassment on male victims is an understudied field of research that warrants further exploration.

### Conclusion

The current study explored different facets of the experience of sexual harassment in the undergraduate students of Kathmandu and uncovered three overarching themes by employing a thematic analytic approach: experience of the incident, the effect of sexual harassment on mental health, and education, and dealing with the consequence of the harassment. Unwanted physical touch, invasion of private space, suggestive remarks, and leering constituted the often-reported harassment behaviors; females were the primary victims, but a considerable number of men also reported being harassed. Notably, the setting of most frequent harassment behavior was public vehicles. Few students underwent psychological trauma, while others had psychological effects on the spectrum of mild to none. A similar pattern was revealed in academic outcomes. Interpersonal, as well as intrapersonal coping strategies, were employed to tackle the consequences of harassment. Despite the apparent limitations of qualitative research (such as lack of generalizability), the findings of this study have several implications at the individual, societal and policy level in mitigating sexual harassment and stimulating the debate concerning the issue.

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# Effect of Gender, Family Type, Caste - Category and Socio-Economic Status on Psychological Well-Being of Rural Population

Received: 12 November 2021  
Accepted: 15 December 2021

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## Abstract

*Psychological Well-Being (PWB), a multidimensional concept can be affected by various aspects of life. In this study researchers had tried to find out the effect of gender, family type, caste -category and socio-economic status (SES) on psychological well-being of rural population. For this study, 1216 participants were randomly selected. Psychological Well-Being scale constructed by Sisodia and Choudhary (2012) was used to collect data. Critical Ratio and one way ANOVA was computed. Results showed that Gender and Caste significantly affect the psychological well-being while Family type and Socio-Economic Status (SES) did not significantly affect the PWB among the rural population. It can be concluded that female subjects have significantly higher PWB to that of male subjects. Scheduled caste category subjects have significantly higher PWB than that of general category subjects. Middle SES subjects also have significantly higher PWB than the high SES subjects. These findings are discussed to understand the causes of low PWB among male, general caste-category subjects and upper SES subjects so that steps can be taken to enhance the PWB among these groups.*

**Keywords:** Gender, Caste-Category, Family type, Socio-Economic Status, Psychological Well- Being

Psychological well-being (PWB) is about lives going well. It is the combination of feeling good and functioning effectively (Huppert, 2009). Psychological Well-Being (PWB) can vary greatly concerning age, gender, and residence. PWB is a diverse multidimensional concept (Macleod & Moore, 2000). Makvana (2020) found in his research a significant difference between males and females regarding their evaluation of their PWB. Similar results found by Creed and Watson (2003), Akhter (2015), and Larson et al. (2008). However, some other studies revealed no significant gender difference on PWB (Kantariya, 2017; Khumalo et al., 2012; Kotar, 2013; Roothman et al., 2003; Waghmare, 2016, 2017; Tomer & Singh, 2019). Residential area, age and gender were found significant factors in adolescents' PWB (Maroof & Khan, 2016; Arya & Sangwan, 2018). However, Kumari and Sandhya (2018) found that gender and residence locale do not significantly affect psychological well-being.

Falci (1997) found a significant relationship between the family system and psychological well-being of individuals in later life. Another study (Prajapati, 2013) found no significant difference between the

psychological well-being of joint and nuclear families. Females of the joint family had better psychological well-being than male of the nuclear family (Gul et al. (2017). Sharma et al. (2015) found that there is a positive relation between family environment and well-being. In a study, Sinha and Singh (1998) found that subjects belonging to the forward caste were better adjusted in the home than the students belonging to the backward caste. No significant effect of caste-category on psychological well-being among college students was found by Tomer and Singh (2019, 2021). Similar result was found by Suresh and Venkatesh (2021).

Socio-Economic Status (SES) is an important factor that affects psychological well-being. High socio-economic status is a major predictor of emotional response and well-being (Ryff & Singer, 2008; Shanker & Singh, 2013). Another study done by Reshma and Manjula (2016) found a significant difference in socio-economic status and psychological well-being. Adults belonging to the lower socio-economic status group have low level of psychological well-being. High income is a predictor of better psychological well-being (Clarke

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et al., 2000). Sharma and Sahu (2014) found that the high-income group and middle-income group significantly differed on psychological well-being.

The researcher in this study tried to find out the effect of gender, type of family, caste-category, and socio-economic status (SES) on psychological well-being (PWB) in rural Indian population. Though there are a lot of studies conducted on gender, family type, SES and PWB but these studies were conducted mostly on urban population and showing mixed results. Although, some studies that were conducted on rural population but for the present study the sample from rural areas nearby to national capital region (NCR) Delhi has been selected, as people residing in these areas are living in villages and go for work and to earn livelihood commute to urban areas. Besides that, there are a few studies related to caste -category and PWB. So, researchers tried to find out the role of these variables on psychological well-being in rural Indian population with large sample size.

### **Objectives**

To study the effect of gender, family structure, caste –category and socio-economic status on psychological well- being.

### **Hypothesis**

Null hypothesis was formulated that there would be a significant effect of gender, family structure, caste –category and socio-economic status on psychological well- being.

### **Method**

**Sample:** Stratified random sampling technique was used to collect the data. For this study, 1216 participants were selected randomly. Out of which there were 598 male and 618 female; 464 from nuclear and 752 from joint family; 476 from lower SES, 353 from middle SES, and 387 from upper SES; 380 from general, 465 from OBC and 371 from SC category. Mean age of the subjects was 30.05 years with SD 6.175. All other possible relevant variables such as age, education, marital status were controlled with the process of randomization. Moreover, all the subjects were selected from rural population of Aligarh, and Meerut districts of Uttar Pradesh.

**Tool Used:** To measure the SES level of the subject, Pareek's revised Socio-Economic Status Scale (Singh, Sharma, & Nagesh, 2017) was used. This scale has nine different factors which assess the socioeconomic status of the individual. The reliability of the test was 0.78.

Psychological Well-Being was measured using Psychological Well-Being Questionnaires developed and standardized by Sisodia and Choudhary (2012). It is a five-point rating scale containing 50 items. This scale has a test - retest reliability 0.87; internal consistency 0.90 and content validity 0.94.

### **Procedure of Data Collection**

The researcher contacted the subjects individually to make the rapport with the participants for data collection. First, they were made aware of the purpose of the study and then asked to sign a “willingly participation consent form” after that they were asked to provide information like gender, age, education, type of family and caste they belong to, etc. The researchers asked the subject to fill first the Socio-Economic Status and after that Psychological Well-Being Scale. All procedures performed in the study were in accordance with the ethical standards of the “University Grant Commission, New Delhi India” and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Approval was granted by the research committee, Meerut College, Meerut India.

### **Result and Discussion**

In this study, researcher tried to find out the effect of gender (male-female), family type (nuclear-joint family), caste-category (General, OBC and SC) and SES (High, Middle and Low SES) on psychological well-being among rural population. To test the various hypotheses Critical Ratio (CR) and one way ANOVA was used to analyse the data. As critical ratio and one way ANOVA can be applied on uneven number of subjects and large sample size always gives better results so researchers took the uneven number of subjects in the study. Table-1 showed the summary of Critical Ratio of PWB across the gender and type of family. The mean value of PWB of male and female subjects was found 193.77 (SD=19.65) and 196.66 (SD=20.91) respectively. Critical Ratio (CR) for gender with df 1214 was 2.48,  $p=0.013$ . It means that, mean difference between men and women was significant at 0.05 level of significance. Mean and SD of PWB of subjects belonging to nuclear family and joint family was 195.37 (SD=20.05) and 195.15 (SD=20.54) respectively. The CR value for family type with df 1214 was found 0.08,  $p=0.856$ . It means that mean difference between nuclear and joint family was found non-significant.

**Table 1: Summary of Critical Ratio between Mean of PWB across Gender and Family Type (N=1216)**

Independent Variable		Psychological Well-Being (PWB)					
		N	M	SD	df	CR	Sig.
Gender	Male	598	193.77	19.65	1214	2.48	0.013
	Female	618	196.66	20.91			
Family Type	Nuclear	464	195.37	20.05	1214	0.18	0.856
	Joint	752	195.15	20.54			

The mean and SD of PWB of subjects belonging to general caste (GC) category, other backward classes (OBC) category and scheduled caste (SC) category was 193.42 & 19.94; 195.22 & 20.63 and 197.12 &

20.28 respectively. The mean of PWB of SC category was highest among the three caste-category groups and the lowest mean was of GC category subjects among the three caste-category groups (Table-2).

**Table 2: Mean and Standard Deviation of PWB across Caste-Category**

Independent Variables		Psychological Well-Being		
		N	Mean	SD
Caste-Category	GC	380	193.42	19.94
	OBC	465	195.22	20.63
	SC	371	197.12	20.28

Summary of ANOVA for PWB of GC, OBC and SC category is shown in Table-3. The F-ratio (2, 1213) was 3.11,  $p=.045$ , which was found significant at 0.05

level of significance. It means that caste-category produced significant difference in the psychological well-being of the three caste groups.

**Table 3: Summary of ANOVA for Caste-Category (N=1216)**

Source	SS	df	MS	F-ratio	Sig.
Between Group	2568.89	2	1284.445	3.11	0.045
Within Group	500322.39	1213	412.47		
Total	502891.28	1215			

To know the status of mean difference among various caste groups on psychological well-being, the Tukey HSD post-hoc analysis was calculated. Results are showed in Table-4. A significant mean difference ( $Md=3.69$ ,  $p=.034$ ) was found between SC and GC category subjects. While the mean difference between

general & OBC ( $Md=1.80$ ,  $p=0.04$ ) and between OBC & SC ( $Md= -1.89$ ,  $p=0.37$ ) was found non-significant. It means that the effect of SES was found significant only due to the significant mean difference between psychological well-being of SC and General Caste-category subjects (Table 4).

Table 4: Tukey Post Hoc Analysis between PWB of GC, OBC and SC subjects

(I) Caste	(J) Caste	Mean Difference (I-J)	Std. Error	Sig.
General	OBC	-1.80115	1.40444	0.405
OBC	SC	-1.89796	1.41379	0.372
SC	General	3.69911	1.48230	<b>0.034</b>

The mean and SD of PWB of subjects belonging to lower SES, middle SES and upper SES was 195.59 & 18.56; 196.79 & 20.30 and 193.38 & 22.29 respectively. The mean of PWB of middle SES

subjects was found highest among the three SES groups and the lowest mean was of upper SES subjects among the three SES groups (Table 5).

Table 5: Mean and Standard Deviation of PWB across SES.

Independent Variables	Psychological Well-Being			
	N	Mean	SD	
SES	Lower SES	476	195.59	18.56
	Middle SES	353	196.79	20.30
	Upper SES	387	193.38	22.29

Summary of ANOVA for PWB of lower, middle and upper SES is shown in Table-6. The F-ratio (2, 1213) was 2.73, p=.065, which was found non-signifi-

cant. It means that SES does not affect significantly the psychological well-being among rural population

Table 6: Summary of ANOVA for SES (N=1216)

Source	SS	Df	MS	F-ratio	Sig.
Between Group	2255.43	2	1127.715	2.73	0.065
Within Group	500635.85	1213	412.725		
Total	502891.28	1215			

Table 7 showed the summary of Critical Ratio of PWB of middle and upper SES. The mean value of PWB of middle and upper subjects was found 196.79 (SD=20.30) and 193.38 (SD= 22.29) respectively. CR between middle and upper SES for df 738 was found 2.17, p=0.030, which was found significant at 0.05 level

of significance. It means that middle SES subjects have significantly higher psychological well-being than that of upper SES subjects in rural population. While, mean difference on psychological well-being was found non-significant between other SES groups i.e. lower and upper SES; middle and upper SES subjects.

Table 7: Summary of Critical Ratio between Mean of PWB of Middle and Upper SES (N=740)

Variable	Psychological Well-Being (PWB)						
	N	M	SD	df	CR	Sig.	
SES	Middle SES	353	196.79	20.30	738	2.17	<b>0.030</b>
	Upper SES	387	193.38	22.29			

Results showed that there was a significant gender difference in PWB of rural population. So, we accept our first hypothesis. Women have significantly higher PWB to that of men. If we look into the social structure

of Indian rural families, we found that there is a clear division of work and duties for male and female. If a man is not doing a job or business, he has to cultivate the harvest on the agricultural land and to do all the

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work related to agriculture. While women have to perform the entire household work and take care of the pet animals of the family. If a man is on a job or doing business, women not only perform all household work but also perform other day-to-day agriculture work like cutting the crops for pet animals, watering the crops etc. It means that women play an active role in the family and thus having a feeling of satisfaction that they have value in their family and society. This may be the reason for the higher PWB among females than males of rural population. Our results are in congruence with the results of the Makvana (2020); Creed and Watson (2003); Akhter (2015); and Larson et al. (2008).

As far as the effect of family type on PWB, results showed that there was no significant effect of family type on psychological well-being among the rural population. So we reject our second hypothesis. Both the subjects' groups belong to nuclear and joint families have almost the same mean value on PWB. Now a days, there is a trend in rural joint families that they live in such a way that they have the common house, water pump and agriculture land but they have separate room to live; have separate pet animals; they do not share their earnings with other family members except in case of emergency. They live like a nuclear family in joint family. This may be the reason that types of family do not affect the PWB of rural subjects. The result of this study is in congruence with the findings of the study conducted by Prajapati (2013).

Results of the present study also showed that caste-category of participants significantly affect the PWB of rural population. So, our third hypothesis gain support from the present findings. As SC category population are treated as socially, economically, educationally weaker than other caste peoples of the rural Indian population. So there is a general view that the SC category population living in rural areas have poor well-being. But the results of this study are contrast to that of general view. Results showed that the PWB of SC category subjects was higher than other caste groups. The SC category subjects have significantly higher PWB than that of general caste-(GC) subjects. It may be due to the feeling of security and satisfaction which they got due to the various government welfare schemes such as house on subsidized rate, free treatment for illness, scholarship schemes for students, reservation in educational institutions and government jobs (Pai, 2017; Suresh & Venkatesh, 2021). OBC category subjects also get reservation in educational

institutions and government jobs but this is not the case with the GC category population. GC category people though economically and educationally well but the feeling of insecurity of job or future may be the cause of low PWB among them.

Other cause of higher PWB among SC and OBC category subjects than the GC category subjects may be that 20 to 30 years back GC people were economically and educationally stronger than OBC and SC category subjects. They have the prestigious positions like head and member of village panchayat, jila panchayat and other village welfare committees. But reservation for SC and OBC category people in school/colleges and government job gives them chances to get education and have job for livelihood. They also got reservation in village panchayat/ jila panchayat and many other village/jila welfare committees, which give them chances to be elected as head/member of the village panchayat/ jila panchayat and other village/ jila welfare committees. Thus make them economically sound and educationally good too. So the feeling of meaningfulness and better chances for growth enhances their life satisfaction, which may be the cause of this higher PWB among SC and OBC category population than GC population in rural population. Similar points of views were expressed by Pai (2017) and Mehrotra, (2018). Results of this study were in contrast to the findings of the study by Tomer and Singh (2019, 2021) and Suresh and Venkatesh (2021).

Though many studies (Clarke et al., 2000; Reshma & Manjula, 2016; Ryff & Singer, 2008; Shanker & Singh, 2013; Sharma & Sahu, 2014) have found a significant effect of socio-economic status (SES) on PWB, but results of this study showed no significant variance in PWB among three SES groups. So we reject our fourth hypothesis. Findings of our study support the views that there is no significant relationship between wealth and well-being or mental health. Results showed that middle SES subjects had significantly higher PWB than upper SES groups. This finding partially supports the findings of Ryff & Singer (2008).

### Conclusion

On the basis of results and discussion it can be concluded that gender and caste are significant factor which contribute significantly to the psychological well-being of rural populations. Female subjects have higher level of psychological well-being than the male subjects. In contrary to the general Indian citizen view, scheduled caste category subjects have higher level of

psychological well-being than other caste-category while general category subjects have the lowest psychological well-being than others. Middle socio-economic status subjects have significantly higher psychological well-being than that of upper socio-economic status subjects.

In national capital region we have patriarchal family. If the psychological well-being of the head of the family deteriorates, it will directly or indirectly affect the psychological well-being of family in particular and society at large. Caste-system is also deeply rooted and affects all aspect of life in rural areas so gap of

psychological well-being among various caste groups must be filled for a healthy society. As psychological well-being refers to the ability of a person to achieve one's full psychological potential, so efforts should be made by psychologist and mental health workers to improve the psychological well-being of male, general caste category and upper socio-economic status people of rural areas. Government should take such steps and make such policies which fill the gap of psychological well-being among various caste groups and SES groups so that a better society with higher psychological well-being can be made.

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# Internalised stigma and self-esteem in patients with remitted schizophrenia and their spouses

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Received: 13 November 2021

Accepted: 20 December 2021

## Abstract

There are plenty of studies on stigma and self-esteem in patients with schizophrenia. Patients with remitted schizophrenia and particularly their spouses had not been studied sufficiently to explore the association between stigma and self-esteem. Keeping this in view, the current study was initiated. This study was aimed at exploring the association between internalised stigma and self-esteem in patients with remitted schizophrenia and their spouses. This study was carried out in 100 participants (50 patients with remitted schizophrenia and their spouses) at the outpatient Department Post Graduate Institute of Behavioural and Medical Sciences, India. Patients and spouses, who fulfilled the inclusion criteria of the study, were interviewed and data were collected by Positive and Negative Symptoms Scale, Brief Psychiatric Rating Scale, Rosenberg Self-Esteem Scale and Internalized Stigma of Mental Illness Inventory (ISMI). Patients with remitted schizophrenia were observed with a significant negative correlation ( $r = -.80, p < 0.01$ ) between internalized stigma and self-esteem. Similarly, also in spouses there was a significant negative correlation ( $r = -.39, p < 0.01$ ) between these two variables. The current study is concluded with the comment that in patients with remitted Schizophrenia and their spouses, high internalized stigma and its relation with low self-esteem require the attention of clinicians for better functional outcomes in patients and enhanced well-being in their spouses.

**Keywords:** Internalized stigma, self-esteem, remitted Schizophrenia, spouses

Self-esteem is a crucial aspect of mental health. High self-esteem has a positive association with healthy social relations, greater well-being and job satisfaction (Henriksen, Ranoyen, Indredavik, & Stenseng, 2017; Orth, Robins, & Widaman, 2012), whereas, low self-esteem is associated with emotional disturbance and psychiatric conditions (Leary, Schreindorfer, & Haupt, 1995). Internalized stigma refers to how people with mental illness apply negative stereotypes to themselves, perceive rejection from others, and feel isolated from society (Park, Bennet, Couture, & Blanchard, 2013).

Schizophrenia is a chronic and severe mental disorder that affects how a person thinks, feels and behaves. It affects 1% of the population worldwide (Perälä et al., 2007). Lifetime prevalence of Schizophrenia is reported around 1.4% (Murthy, 2017).

During recovery phase, stigma plays a significant role in the lives of schizophrenia patients. Particularly when patients begin to attend follow-up appointment, work, and engage in other activities of daily living that require social interaction. Internalized stigma is

common in schizophrenia patients, and it has been linked to lower levels of functioning, depression, social anxiety, secrecy, lower social functioning, and less mastery (Singh, Matto, & Grover, 2016; Gerlinger et al., 2013). Self-esteem plays an important role in the development in various areas of adjustment in one's life. As a result, there appears to be a need to investigate the connection between internalized stigma and self-esteem in remitted schizophrenia patients.

Furthermore, not only do patients face stigma, but so do their caregivers, especially spouses, because of their loved ones' illness. A multicentre research in India discovered that caregivers of schizophrenia patients face more stigma than caregivers of other disorders (Grover et al., 2017). Spouses are also the main caregivers for these patients. If stigma has an effect on a spouses' thinking, behaviour and their interaction with patients after the onset of illness, it is likely to have a negative or positive impact. By contrast, spouses' self-esteem is just as critical for their mental health as it is for providing good care to their patient

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partners. It is assumed that if self-esteem is influenced by or associated with internalized stigma because of illness to their loved ones, it would have a negative impact on their adjustment in various areas of life. In light of the above, the current study was planned. The first objective of the study was to check the difference in internalized stigma and self-esteem between patients with remitted schizophrenia and their spouses. Moreover, literature is dubious about the kind of association between internalized stigma (perceived by spouses) and the self-esteem of spouses. Hence, the second and third objectives were to see the association of internalized stigma with self-esteem in both patients and their spouses separately.

### Research design

This study was conducted using cross-sectional correlational research design. In this study patients with schizophrenia and their spouses were recruited. They were compared for self-esteem and internalized stigma in order to know if any difference between them. This comparison was intended to explore whether being diagnosed and living with schizophrenia bring similar stigma in both the groups. Both the groups then were assessed for the association between internalized stigma and self-esteem.

**Sample:** The sample for the present study consisted of 100 participants (50 patients with schizophrenia, who were in remission phase as per Andreasen et al.'s criteria (Andreasen et al., 2005) and their 50 respective spouses). Criterion sampling method was used to select the participants from the Out-Patient Department of Post Graduate Institute of Behavioural and Medical Sciences (PGIBAMS), Raipur, C.G. In the patient group 36% were males and 64% were females and in the spouse group 64% were males and 36% were females. The mean age of patients was 39.14 (7.89) and the mean age of the spouses were 42.2 (8.92). Most of the patients and spouses had at least a primary and secondary level of education. Maximum (60%) of the sample were from the rural background and were married (68%) for more than 10 years. Fifty percent of patients were with a treatment history of more than 5 years, 28% with 2-5 years and 12% were with of treatment history 1 year or less.

#### Inclusion criteria

- Follow up patients diagnosed with schizophrenia as per ICD-10 (DCR)
- Fulfilling the criteria of remission on PANSS
- Aged between 18- 60 years

- Both male and female patients and spouses who could read and comprehend Hindi

- The spouse has been living with and providing care to the patient during illness

- Patients and/or spouses, who agreed to give formal informed consent for the study

#### Exclusion criteria

- Patients who had co-morbid conditions i.e., substance dependence, organic illnesses etc. (as per the history)

- Spouses with a history of schizophrenia, mood disorder, substance abuse/dependence, anxiety spectrum disorders and organic illness (as per the history and BPRS)

### Tools

**Positive and Negative Symptoms Scale** involves 30-items is a seven-point rating instrument. Out of the 30 parameters assessed, seven were chosen to constitute a Positive Scale (score range 7–49), seven a Negative Scale (7–49), and the remaining 16 a General Psychopathology Scale (16–112). This scale has sound psychometrics and is widely used in clinical setting and in researches (Kay, Fiszbein, & Opler, 1987).

**Brief Psychiatric Rating Scale** is designed to assess the severity of psychotic illness. It consists of 18 items. Five of the items (tension, emotional withdrawal, mannerisms and posturing, motor retardation and uncooperativeness) are based on observations of the patient. The remaining 13 items are based on the patient's verbal report. Items are rated on a 7-point Likert scale, from 1 = "not present" to 7 = "extremely severe", with scores ranging from 18 to 126 (achieved through summing the item scores). Inter-rater reliability for the scales: range from 0.56 (tension) to 0.87 (guilt feelings and hallucinatory behaviour) Inter-rater reliability for overall scores: range from 0.67 to 0.95 (Overall & Gorham, 1962).

**Rosenberg Self-Esteem Scale** is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be one-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. This scale is valid and reliable one (Gray-Little, Williams, & Hancock, 1997).

**Internalized Stigma of Mental Illness Inventory (ISMI)** scale has been developed by Ritsher, Otilingam, and Grajales (2003) to measure the subjective experiences of self-stigma. The ISMI

consists of 29 items. Each item is rated on a 4-point Likert-type scale with 1 representing strongly disagree and 4 representing strongly agree. A higher total score indicates a higher level of internalized stigma. The ISMI consists of five subscales that measure alienation, stereotype endorsement, perceived discrimination, social withdrawal, and stigma resistance (SR). This scale had adequate psychometric properties and is widely used in researches worldwide (Ritsher, Otilingam, & Grajales, 2003).

#### Procedure

After receiving approval from the institutional ethical committee of PGIBAMS, Raipur, CG, the study began. Measures to be used in the study were translated into Hindi using the back translation method recommended by WHO (the translation was done for Rosenberg self-esteem scale and internalized stigma of mental illness inventory). Adult patients who were male or female (visited OPD of PGIBAMS) accompanying by their spouses, who were remitted on PANSS, patients and their spouses who could comprehend the Hindi were included in the study using criterion sampling. All the participants were requested to give formal consent after being briefed about the

study. Study measures were used in couples individually and separately. If any participant had difficulty understanding any item in the tools were explained keeping the integrity of content intact. After the completion of data collection, they all were thanked for their participation in the study and data was processed for statistical analysis.

#### Data analysis

IBM Statistical Package for Social Sciences, version 21.0 was used to analyze the data. Descriptive statistics were used for demographic (for patients and spouses) and clinical data (for patients). To check the major assumption of the parametric test, normality of data was assessed by Shapiro-Wilk, which revealed that data on internalized stigma ( $W = .93, p < 0.05$ ) among patients and data on self-esteem ( $W = .95, p < 0.05$ ) among spouses were violating the normality assumption, therefore, spearman's correlation was used to assess the association between internalized stigma and self-esteem and Mann-Whitney U test was used to compare study variables between patients and spouses.

#### Results

Results revealed (Table 1) that there was no significant difference ( $p_s < .05$ ) between patients and spouses for self-esteem and internalized stigma.

**Table 1: Comparison of self-esteem and internalised stigma between patients and their spouses**

Variables	Patient (n=50)		Spouse (n=50)		Mann-Whitney U	Sig.
	Mean (SD)	Mean Rank	Mean (SD)	Mean Rank		
<b>Self Esteem</b>	19.50(4.50)	49.95	19.44(3.64)	51.05	1222.5	.84
<b>Internalized stigma</b>						
Alienation	2.18 (.88)	50.34	2.16 (.77)	50.66	1242	.95
Stereotype	2.12 (.85)	48.68	2.17 (.77)	52.32	1159	.53
Discrimination	2.19 (1.03)	48.77	2.18 (.73)	52.23	1163.5	.55
Withdrawal	2.23 (.92)	51.18	2.16 (.82)	49.82	1216	.81
Resistance	2.02 (.66)	45.90	2.36 (2.90)	55.10	1020	.11
Total	2.15 (.68)	49.95	2.17 (.60)	51.05	1222.5	.85

**Table 2 Correlation of self-esteem with internalized stigma among patients with remitted Schizophrenia (n=50)**

Variable	SelfEsteem
<b>Internalized stigma</b>	
Alienation	<b>-.75**</b>
Stereotype	<b>-.77**</b>
Discrimination	<b>-.74**</b>
Withdrawal	<b>-.76**</b>
Resistance	0.07
<b>Total</b>	<b>-.80**</b>

\*\* p<0.01

There was a significant strong negative correlation between internalized stigma and self-esteem ( $r = -.80$ ,  $p > .01$ ) in the patients with schizophrenia suggesting that with increasing levels of stigma, self-esteem decreases (Table 2).

There was a significant negative correlation between internalized stigma and self-esteem in the spouses of patients with schizophrenia ( $r = -.39$ ,  $p > .01$ ) indicating that higher internalized stigma (due to illness to their partners) is associated with lower self-esteem in the spouses (Table 3).

**Table 3 Correlation of self-esteem with internalized stigma among spouses (n=50)**

Variables	SelfEsteem
<b>Internalized stigma</b>	
Alienation	<b>-.43**</b>
Stereotype	-.26
Discrimination	-.26
Withdrawal	<b>-.38**</b>
Resistance	.17
<b>Total</b>	<b>-.39**</b>

\*\* p<0.01

There were differences in spearman's correlation coefficients (for domains of internalized stigma and

self-esteem) of patients and spouses. For the spouses, only alienation ( $r = -.43$ ,  $p > .01$ ) and withdrawal ( $r = -.38$ ,  $p > .01$ ) are significantly inversely associated with self-esteem. Whereas among patients almost all domains of internalized stigma i.e., alienation ( $r = -.75$ ,  $p > .01$ ), stereotype ( $r = -.77$ ,  $p > .01$ ) discrimination ( $r = -.74$ ,  $p > .01$ ) and withdrawal ( $r = -.76$ ,  $p > .01$ ) had strong significant negative association with self-esteem. These findings imply that the association between internalized stigma and self-esteem for patient and spouse varies in domain wise analysis.

### Discussion

The current study was aimed to explore the association between internalised stigma and self-esteem for the patients with schizophrenia and their spouses. Self-esteem is well known to play an important role in an individual's growth and development. Because patients with schizophrenia go through remarkable turmoil during the course of illness because of the nature of symptomatology and its impacts in functional impairment in them, hence their self-esteem is vulnerable to change. Meanwhile, the presence of schizophrenia in patients is assumed to influence the self-esteem of their spouses living with them and providing care. In the current study, self-esteem in both groups was hypothesized to be related to their perception of being stigmatized due to the diagnosis of schizophrenia.

The first objective of the study was to compare internalized stigma and self-esteem between the patients with schizophrenia and their spouses. Results (table 1) demonstrated that there was no significant difference ( $p < 0.05$ ) observed in self-esteem and internalised stigma between both groups. It indicates that patients and caregiver spouses, who are sharing for their hardships, are forming similar perceptions about their reduced ability to meet role expectations due to illness (Park, Bennet, Couture, & Blanchard, 2013) and sharing perception of being stigmatised by others. This finding demonstrated that although in the phase of symptomatic remission, their (both patients and spouses) self-esteem appears to be reduced in an approximately similar amount. More research is required to explore the self-esteem and internalized stigma of patients and their spouses before, during and after the remission of illness in a longitudinal study to see the kind of changes that occur in these variables across the phases of illness and other factors associated with it.

The second objective of the study was to explore the relationship between internalized stigma and self-esteem in patients with schizophrenia. The findings (table 2) revealed that there was a significantly strong negative correlation between almost all the domains of internalized stigma and global internalized stigma with self-esteem. Other studies also suggested that higher levels of stigma, perceived discrimination and devaluation are associated with low self-esteem and moreover undermines self-efficacy and illness related empowerment (Berge, & Ranney, 2005; Vauth, Kleim, Wirtz, & Corrigan, 2007; Ow & Lee, 2015)

The crucial impact of stigma among these patients is found in form of negative reaction from others, negative views and feelings about self and reduced ability to meet role expectations (Ow & Lee, 2015). These impacts might be the underpinning of strong association between internalized stigma and self-esteem which our study noticed. Koschorke et al. (2014) in an Indian study recruited the patients with moderate severity of schizophrenia to explore these variables whereas our study included the patients with symptomatic remission. Our study indicated that even in symptomatic remission patients with schizophrenia felt stigmatized and decreased self-esteem, and there is a strong association between these two variables.

The third objective of the study was to explore the relationship between internalized stigma and self-esteem among the spouses of patients with schizophrenia. The findings (table 3) revealed that there was a significant moderate negative correlation in two domains viz, alienation and withdrawal and global internalized stigma with self-esteem. Although compared with the patient group, the strength of the relationship is weak, but it is significant. However, in larger sample studies the strength of the relationship is more likely to be closer. An Indian study indicated that caregivers' emotional reactions and feelings about themselves depend upon patients' and their reduced ability to meet role expectation, negative reactions of people toward patients and caregivers and so on (Koschorke et al., 2017), can be the fundamental reasons behind the moderate association between reduced self-esteem of caregivers and high perceived internalized stigma among these spouses. Thus, our study indicate that spouses, who are the closest caregivers of patients, experience both reduced self-

esteem and high internal stigma when their partners are diagnosed and living with schizophrenia even in the symptomatic remission phase.

Moreover, internalized stigma is an important psychological mechanism in recovery (Vass, Sitko, West, & Bentall, 2017), especially when it is negatively associated with the self-esteem of both patient and care giving spouse. These findings have a major direction for the clinicians to work toward the reduction of internalized stigma in remitted patients with schizophrenia and their spouses to boost up their self-esteem. It is found that adequate self-esteem would not only help them to be more functional in meeting their role expectations but also would be a protective factor in the relapse of illness (Holding, TARRIER, Gregg, & Barrowclough, 2013).

In the current study, there are bound limitations. This research was unable to involve randomly selected participants, which may have resulted in deviated data on variables, limiting the use of parametric statistics. The generalizability of the results is restricted due to this limitation and the small sample size. We were unable to include patients in functional remission, which would have been a better fit for investigating the connection between internalised stigma and self-esteem, and potentially providing crucial information to researchers and clinicians working to improve functional remission. Based on these shortcomings, the authors recommend that future research should focus on internalised stigma and self-esteem in a random sample of schizophrenia patients achieving functional remission and their partners.

### Conclusion

There was no significant difference in internalized stigma and self-esteem between patients with remitted (symptomatic remission) schizophrenia and their care giving spouses. Moreover, the study found that there was a significant association of high internalized stigma with low self-esteem not only in patients with remitted schizophrenia but also in spouses. This research, despite the limitations listed above, shows that clinicians must strive to minimize stigma and improve self-esteem in patients with schizophrenia, as well as their spouses who provide care, even after symptomatic remission. If clinicians focus on these areas, it is expected that patients can recover more quickly and prevent relapse.

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# Parent-child Relationship and Leadership Style among Undergraduate Students

Received: 30 November 2021

Accepted: 25 December 2021

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## Abstract

*Balanced relationship between parents and their children is one of the factors influencing both their physical and mental health. Researchers have shown that relationship between children and parents and how parents communicate with children are considered to be the most important and fundamental factors among the various factors that affect children's fostering and healthy character. So, the present study has been designed to explore the parent-child relationship and preference of leadership style employed by undergraduate urban and rural students. Also, the present study examines the relationship between the type of parent child relationship and preference for leadership style among undergraduate students. For this purpose, the sample size comprised of 160 undergraduate students, out of which 80 were male students (40 urban and 40 rural) and 80 were female students (40 urban and 40 rural). The tools used were parent-child relationship scale and leadership preference scale (LPS). A significant difference was found between the preference of leadership style among rural and urban students. On the other hand, no significant difference was found between the preference of leadership style among male and female undergraduate students. The results also revealed significant correlation between some of the dimensions of parent-child relationship and preference of leadership style among undergraduate students. The results of present study implicate that some psycho-education or other interventions may serve as avenue to strengthen the child parent relationship and affective leadership education programs must focus on developing people's relational skills.*

**Keywords:** Parent Child Relationship, Leadership style, Undergraduates

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The term relationship is a unique bond between child and parents. The parent child relationship is very much responsible in the development of a child. The parent-child relationship develops and is shaped by both parental and child characteristics. Parenting is a process of being thoroughly involved into the emotional and physical upbringing of the child. The first learning of the child is from what the parents are doing around. The child is a keen observer and while parents unknowingly do wrong actions or speak aloud the wrong words in front of the child, the child immediately gets the hang of it and is sure to repeat it during that time or at a later stage. Parents teach a lot of things to their child and later on complain for the same.

Parent-child relationship has been considered as part of parental involvement process and consists of a combination of behaviors, feelings and

expectations that are unique to a particular parent and particular child. Parent child relationship is an important tool to understand the individual development over the time. The adult's development largely defined how the child behaves with their parents; whether they hide the things or expose in front of their parents. Children are taught by parents how to behave in the society and relate with others in the surrounding and make them aware what is wrong and what is right.

Parents act as the primary socialization agents of their children especially for moral and social development and academics outcomes (Barry, Frick and Grafeman, 2008). Adams, Ryan and Keating (2000) suggest that parents continue to play an important role in their children's lives as they transition to college. One of the research conducted by Rathus and Rinaldi (2017) reveals that significant parental

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involvement with students from a young age continues to have an effect years later by improving students' social and emotional adjustments to college.

It is well acknowledged that parental attitude plays a pivotal role in shaping the personality of any individual. The loving and cooperative parenting lead to positive growth of a child who gets security and confidence in his future venture. The parent's leadership style or way of persuasion has an indelible impact on children in both constructive and destructive manner. Leadership style is the manner and approach of providing direction, implementing plans, and motivating people (Clark, 2010). Leadership is a versatile process that requires working with others in personal and professional relationships to accomplish a goal or to promote positive change.

The idea of parents being the first leader or the major influence of leadership style being adopted by any person in his life has been studied several times. Though, numerous researchers have established a link between parenting style and the preference for a leadership type (Avolio, Rotundo, & Walumbwa, 2009; Popper & Maysel, 2003) but very less studies are found explaining the parent-child relationship and preference of leadership style among undergraduate students. Therefore, the present study was undertaken to assess and compare the parent-child relationship and leadership style of undergraduate urban and rural students; boys and girls undergraduate students. Also, the present study examines the relationship between the parent-child relationship and preference for leadership style among undergraduate students.

### Objectives

- To assess and compare the leadership style among undergraduate students from urban and rural background male and female students
- To study the relationship between parent-child relationship and leadership style among undergraduate male and female students

### Hypotheses

Considering the objectives of the study the following hypothesis are framed:

- There would be no significant difference in leadership style among undergraduate students from urban and rural background male and female
- There would be no relationship among parent-child relationship and leadership style among undergraduate boys and girls students.

### Method

**Sample:** To complete the related study, 80 (40 Rural + 40 Urban) female students from Hindu Girls College, Sonipat and 80 (40 Rural + 40 Urban) male students were selected from Hindu Boys College, Sonipat.

### Tools

**Parent Child Relationship Scale (PCRS)** developed by Nalini Rao (2011). The tool contains 100 items categorized into ten dimensions namely, protecting, symbolic punishment, rejecting, object punishment, demanding, indifferent, symbolic reward, loving, object reward and neglecting and rated on 5 point rating scale. The test-retest reliability coefficient ranged from .770 to .871 for boys sample and .772 to .873 for the girls sample over the ten sub-scales. The respondent were asked to rate statements as to their own perception of their relationship with father or mother on a 5 point scale ranging from 'always' to 'very rarely' weighted 5,4,3,2, and 1 on the scale points.

**Leadership Preferences Style (LPS)** developed by L.I. Bhushan in 1995. The scale consists of thirty items, out of which 15 are positively worded and 15 negatively worded. The range of possible scores on this scale is from 30 to 150. Higher score on the scale indicates greater preference for democratic type of leadership. As regards reliability, the co-efficient of internal consistency as adjusted by Spearman-Brown formula was found to be 0.75 where as the co-efficient of temporal stability (after four weeks' interval) was 0.82.

### Results and Discussion

The present investigation was conducted to assess the leadership style among undergraduate students from urban and rural background. For this purpose mean scores of both the groups were calculated and t-test was applied for testing the significance of difference.

**Table 1: Mean, SD and t-value of undergraduate students from urban and rural background on leadership style**

Variable	Group I (Rural students)		Group II (Urban students)		t-value
Leadership style	Mean	SD	Mean	SD	2.96**
	100.98	10.313	96.50	8.715	

\*\*significant at 0.01 level

It is observed from the above table that the mean score of Group I was 100.98 whereas the mean score of Group II was 96.50. Higher mean score on leadership style of rural undergraduate students shows that students with rural background have more leadership tendencies than that of students with urban background.

In order to find out the difference between the two groups t-value was calculated which was found to be 2.96 which is highly significant at 0.01 level. This

indicates that rural students have significantly higher level of leadership style than the urban students. Thus the first hypothesis stating that there would be no significant difference in leadership style among students from urban and rural background has been rejected here. The above results are contrary to the study conducted by Najjar and Dar (2017) as they reported that no significant difference exists between urban and rural students in their leadership preferences.

**Table 2: Means, SD and t-value of undergraduate boys and girls students on leadership style**

Variable	Boys		Giral		t-value
Leadership style	Mean	SD	Mean	SD	0.12
	99.94	9.910	97.54	9.556	

The findings shown in table 2 indicate that the mean score of boys undergraduate students was 99.94 whereas the mean score of girls undergraduate students was 97.54 which indicates too less difference between the mean scores of boys and girls on leadership style depicting that both girls and boys have almost same leadership tendencies.

In order to find out the difference between the two groups t-value was calculated which was found to be 0.12 which is non-significant. This indicates that both boys and girls undergraduate students have same level of leadership style. Thus the second hypothesis stating that there would be no significant differences in leadership style among undergraduate boys and girls students has been verified here.

The results are contrary with following previous studies: Eagly, Karau, and Makhijani (1995) concluded that men tend to fare better when leadership is defined in masculine terms, such as military settings, while women performed better when leadership is defined in less masculine terms, such as educational settings

roles. On self-perception of leadership skills, Yarrish, Zula & Davis (2010) concluded that there are significant differences in perceived leadership skills between males and females. According to their study, females perceived cognitive and interpersonal/ intrapersonal skills as more important than did the male participants.

Further the present investigation was designed to examine the association between democratic style and ten dimensions of parent child relationship among undergraduate students. For this purpose, the coefficient of correlation between democratic style and ten dimensions of parent child relationship of undergraduate boys and girls was computed by applying Pearson's Product moment method. The results are as follows:

The mean and S.D of one of the dimension of leadership preference style i.e. democratic style and ten dimensions of parent-child relationship (Father and Mother form, where (F) indicates father and (M)

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indicates mother) are as follows: for democratic style leadership the mean score was 106.57 (SD=6.768), for Protecting Father (PROF) mean score was 37.92 (SD=6.658), for Protecting Mother (PROM) mean score was 36.77 (SD=7.161), Symbolic Punishment Father (SPF) mean score was 30.11 (SD=6.660), Symbolic Punishment Mother (SPM) mean score was 30.77 (SD=6.156), Rejecting Father (REJF) mean score was 25.52 (SD=7.331), Rejecting Mother (REJM) mean score was 25.72 (SD=7.399), Object Punishment Father (OPF) mean score was 25.76 (SD=7.676), Object Punishment Mother (OPM) mean score was 26.03 (SD=7.810), Demanding Father (DEMF) mean score was 27.35 (SD=6.439), Demanding Mother (DEMM) mean score was 29.43

(SD=6.442), Indifferent Father (INDF) mean score was 27.01 (SD=6.258), Indifferent Mother (INDM) mean score was 27.48 (SD=6.792), Symbolic Reward Father (SRF) mean score was 35.84 (SD=7.625), Symbolic Reward Mother (SRM) mean score was 34.71 (SD=8.378), Loving Father (LOVF) mean score was 34.85 (SD=8.359), Loving Mother (LOVM) mean score was 34.70 (SD=7.732), Object Reward Father (ORF) mean score was 29.35 (SD=7.241), Object Reward Mother (ORM) mean score was 28.67 (SD=7.362), Neglecting Father (NEGF) mean score was 23.19 (SD=6.788), and Neglecting Mother (NEGM) mean score was 24.52 (SD=7.064).

**Table 3: Correlation matrix between democratic style leadership and autocratic style leadership with dimensions of parent child relationship(N=160)**

Variables	Democratic style	Autocratic style
Protecting Father	-.135	<b>-.743**</b>
Protecting Mother	-.128	.170
Symbolic Punishment Father	.001	<b>-.767**</b>
Symbolic Punishment Mother	.187	-.050
Rejecting Father	<b>.266*</b>	-.056
Rejecting Mother	<b>.284*</b>	-.134
Object Punishment Father	<b>.244*</b>	-.079
Object Punishment Mother	<b>.298**</b>	-.101
Demanding Father	<b>.292**</b>	-.016
Demanding Mother	<b>.416**</b>	.142
Indifferent Father	.050	<b>.279*</b>
Indifferent Mother	.173	.218
Symbolic Reward Father	-.155	.215
Symbolic Reward Mother	-.156	.186
Loving Father	-.134	.084
Loving Mother	-.105	.090
Object Reward Father	-.015	.050
Object Reward Mother	-.079	<b>.222*</b>
Neglecting Father	.076	.124
Neglecting Mother	.144	<b>.687**</b>

The result table shows inter correlation among Leadership Preference for democratic style and dimensions of parent child relationship. It is evident from table 3 that the rejecting father, rejecting mother have significant positive relationship with democratic style leadership ( $r=.266^*$  and  $r=.284^*$  respectively) at 0.05 level. Further, object punishment father and object punishment mother have significant positive relationship with democratic style leadership ( $r=.244^*$  and  $r=.298^{**}$  respectively) at 0.05 level and 0.01 level respectively. Likewise demanding father and demanding mother have significant positive relationship with democratic style leadership ( $r=.292^{**}$  and  $r=.416^{**}$  respectively) at 0.01 and 0.05 level respectively. The positive correlation suggests that students having the parent child relationship tendencies like rejecting father, rejecting mother, object punishment father, object punishment mother and demanding father and demanding mother tend to have democratic style leadership.

Descriptive Statistics of Correlations between LPS (Autocratic style) and Parent Child relationship are as follows: The mean and standard deviation of Autocratic style leadership was 91.10 (SD=5.071) and for the first dimension among 10 dimensions of Parent Child relationship (PCR) i.e. Protecting Father (PF) mean score was 28.88 (SD=11.310), Protecting Mother (PM) mean score was 36.02 (SD=6.483), Symbolic Punishment Father (SPF) mean score was 28.62 (SD=10.357), Symbolic Punishment Mother (SPM) mean score was 28.78 (SD=7.237), Rejecting Father (RJ) mean score was 22.68 (SD=6.941), Rejecting Mother (RM) mean score was 24.26 (SD=7.192), Object Punishment Father (OPF) mean score was 21.37 (SD=8.047), Object Punishment

Mother (OPM) mean score was 22.04 (SD=8.052), Demanding Father (DF) mean score was 26.74 (SD=7.026), Demanding Mother (DEM) mean score was 26.63 (SD=7.040), Indifferent Father (IND) mean score was 39.67 (SD=2.864), Indifferent Mother (IND) mean score was 28.14 (SD=5.718), Symbolic Reward Father (SRF) mean score was 34.12 (SD=6.329), Symbolic Reward Mother (SRM) mean score was 33.48 (SD=6.469), Loving Father (LOVF) mean score was 36.05 (SD=6.890), Loving Mother (LOVM) mean score was 34.57 (SD=6.643), Object Reward Father (ORF) mean score was 28.36 (SD=6.766), Object Reward Mother (ORM) mean score was 27.85 (SD=7.543), Neglecting Father (NEGF) mean score was 24.95 (SD=6.415), and Neglecting Mother (NEGM) mean score was 11.48 (SD=2.873).

The result table 3 also shows inter correlation among Leadership Preference for autocratic style and dimensions of parent child relationship. The Protecting Father and Protecting Mother have significant negative relationship with autocratic style ( $r=-.743^{**}$  and  $r=-.767^{**}$  respectively) at 0.01 level. Indifferent Father has significant positive relationship ( $r=.279^{*}$ ) with autocratic style at 0.05 level. Likewise object reward mother has significant positive relationship ( $r=.222^{*}$ ) autocratic style 0.05 level. Neglecting Mother has significant positive correlation ( $r=.687^{**}$ ) with autocratic style at 0.01 level.

Though the relevant empirical evidence in this area is limited, some of the studies supported the above results are as follows: When the students are able to overcome challenges and learn to cope with problems and difficulties, they are able to augment leadership skills (Haynes-Tross, 2015). Spera (2005) indicates that authoritative parenting styles are often associated with higher levels of student achievement, although these findings are not consistent across culture, ethnicity, and

socioeconomic status. Avolio, Rotundo, & Walumbwa (2009) found support for the influence of parenting practices on a child's future leadership style. Parents are perceived as role models and leaders, and have tremendous influence over their children (Grunwald & McAbee, 2013). Hartman and Harris (1992) investigated whether children adopt the leadership style of an admired parent, but reject and adopt a contrary style when the parent is not admired. On the other hand, Lyon (2006) observed that individuals who reported their mothers to be authoritative also reported having a democratic leadership style, while individuals who reported their mothers to be authoritarian or permissive seemed to rebel against their mothers' style. There is also evidence that authoritative parenting leads to higher school achievement (Spera, 2005), better school integration and mental well-being (Shucksmith, Hendry & Glendinning, 1995), better adaptive achievement strategies in adulthood, along with lower levels of failure expectations and higher self enhancing attributions (Aunola, Stattin & Nurmi, 2000). Lyon (2006) proposed that there is a relationship between leadership styles that adults exhibit later in life and perceived parental leadership styles reported.

The result of the current study implicates that affective leadership education programs must focus on developing relational skills. Following the idea and notion that leadership skills can be taught and learned in an academic environment has led to the proliferation of varied leadership education programs in colleges. Educational outcomes in leadership for college graduates have the potential to positively impact this nation's organizations. Furthermore, some psycho-education or other interventions may serve as avenue to strengthen the parent-child relationship. Counseling services should be provided to both parents and students so that transition is smooth from adolescents to adulthood.

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# Cognitive Development in Children with Autism Spectrum Disorder: A Piaget's Cognitive Developmental Approach

Received: 13 November 2021

Accepted: 09 December 2021

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## Abstract

Children with autism spectrum disorder often experience difficulties in cognitive skills related to understating, comprehending, analyzing, synthesizing, evaluating, and differentiating between two objects. The present study objective to investigate the effect of Piaget based cognitive tasks on the cognitive skills of children with autism spectrum disorder (ASD). Eight children with ASD were selected through purposive sampling and assigned for the intervention program. To measure IQ, the Non-Verbal performance test Raven's colored progressive matrices test was used, and the Indian scale for assessment of autism (ISAA) was used to measure the level of autism spectrum disorder. The IQ was obtained above 80, mild level of ASD, and 6-12 years of the children were placed for this study. The cognitive skills of children were assessed pre- (before) and post- (after intervention). An intervention program based on Piaget's cognitive tasks was implemented on ASD children for four weeks (six days per week) with 30 minutes per session. The total scores on cognitive skills of ASD children were enhanced in the post-test score. The effects of the Piaget's cognitive tasks (concrete operational stage: conservation task, classification, and particular reasoning) intervention were most evident in the task performance rating scale on tasks conservation, classification, and particular reasoning. Children with ASD can benefit from the Piaget based cognitive tasks to enhance cognitive skills. The study findings emphasize the effectiveness of the cognitive skills on Piaget based cognitive tasks intervention, which parents may use, psychologists, special educators who work with ASD children.

**Keywords:** Autism spectrum disorder, cognitive skills, and Piaget based cognitive intervention

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Autism spectrum disorder (ASD) is a neurological developmental condition. Individuals with ASD often experience cognitive deficits such as irregular cognitive abilities or skills. Sansoti, (2010) reported that children with ASD generally have cognitive abilities within the average range or above the range of IQ.

Cognitive skills are defined as abilities such as understanding, knowledge, comprehension; all these proceed by including thinking, knowing, and problem-solving abilities planning. All are high-level cognitive functioning of the persons.

The cognitive factor plays a significant role in one disorder and has a secondary associated role in others because pathways may involve shared processes at the etiological, neural, and cognitive levels (Pennington, 2006). The core assumption of Piaget's theory is that

the children are active thinkers, the concept of better understanding about the world around them by passing through several different cognitive stages and concluded that conservation task might be easy to adopt in paradigm (Siegler & Ellis, 1996). Piaget (1954) focuses on the transition from one stage of operation to another stage children can adapt to their environment, can be acquired by the joint operation of assimilation and accommodation and adaptation. Golan and Baron-Cohen (2006) found that problems in generalization of learning result from a cognitive ability in autism and have a problem in generalizing and grouping conceptualization due to loss of information given and functional differences between and among specific system elements. Siegel (1973) reported that the conservation task was also easy to adopt in the paradigm. Piaget has conceptualized that the concrete

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operational stage (7 -11 years) is a significant turning point in cognitive development further emphasized that a child has to develop conservation ability which is defined as “conservation is an ability to understand about conservation of liquid, length, number, and area. The ability to pass conservation tasks provides clear evidence of operation and conservation of liquid for which children stated that the amount of liquid has not changed”. The child engaged to recognition about change in one aspect of the water (in height) is rewarded for by chance in other aspects.

Further, he emphasized that during this stage child can be able to pass this task. Moreover, focused that children can pass hierarchical classification ability during the age of 7-10 years of the child age in which they can also face inclusion problems which indicate that they are more aware of hierarchical classification and focus on the relationship between general and two specific categories at the same time that is three relations at once. Classification ability can be observed in the child during play activity as they spent more time in sorting and resorting from collection items. The child also improves seriation ability in which the child can able to order items by following quantitative dimensions such as length and weight. The child can arrange sticks in a row but make after using many trials and error methods. Six-seven years old age child is able to make plan accordingly. They can create the series efficiently by beginning with the smaller rather than moving to larger until the ordering is completed by mentally applying seriate it is called transitive interpretation. While working with children, they found that school-age children understand spatial reasoning abilities about space, including direction, distance, and map. The child can comprehend distance improves during middle childhood, as a spatial conservation task and reported child can understand space and direction (Roberts & Aman, 1993). Found that 8-10 years of the old child can give clear and well-organized directions for getting from one place to another. Furthermore, the child can develop operational thinking and use a mental walk strategy to imagine another person's movements along a route/maze (Guvain & Rogoff, 1989). A cognitive map is an ability in which a child can draw spaces such as school and house. In school grades, children's maps become more organized. It is concluded that during this stage, the child can develop cognitive abilities such as concept formulation, differentiate between objects, correlation,

distance, money concept, number concept, abstract thinking, generalization, conservation, drawing ability.

Several studies have shown the efficiency of the Piaget-based cognitive tasks on children's cognitive skills in various studies. However, while reviewing the literature, very few studies Piaget based cognitive development has been conducted in the Indian context for children with autism spectrum disorder. Thus, the present researcher examined the effects of Piaget based cognitive tasks intervention.

The objective of this study was to investigate the effectiveness of the Piaget based cognitive task intervention to improve the cognitive skills such as conservation skills, classification skills, and spatial reasoning skills of children with autism spectrum disorder.

### Method

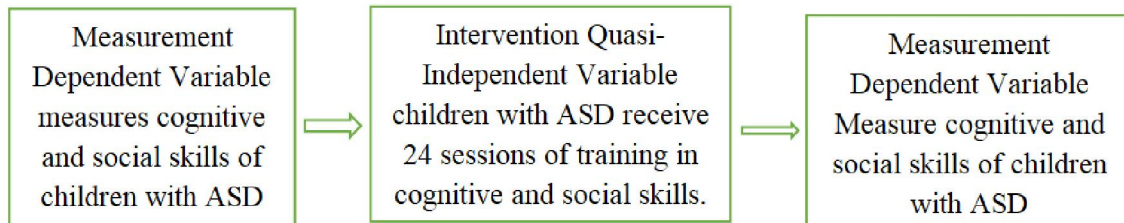
**Participants:** A total number of eight children, two girls and six boys with autism spectrum disorder aged between 6-12 years old and a prior clinical diagnosis by a child psychiatrist from a Delhi-based clinic, were considered under this study. Further, the diagnosis was verified by the admiration of the Indian scale for assessment of autism in ASD children.

**Instruments:** To measure IQ of the children Non-Verbal performance test of intelligence Raven's colored progressive matrices test of intelligence was used, and Indian scale for assessment of autism (ISAA) was used to measure the level of autism spectrum disorder. The Cognitive skill assessment scale for ASD children was used. For this scale, content validity has been considered, the following formula calculated quantitative analysis. The formula for determining the validity of this test is content validity, and quantitative analysis had administered using the Content Validity Ratio (Lawshe, 1975). A total number of experts(N) Number who rated the object as essential (E) out of 77 items 13 items from the test have already been removed as those items show negative values. The remaining 64 items were finalized under both domains (cognitive and social) to assess the cognitive and social skills of ASD children for providing an intervention training program. After 20 days, the test was re-administered on the same sample to establish the test-retest reliability of the tool. The reliability coefficient

and reliability index for the test has been established by applying procedure of internal consistency reliability (0.93), indicating a high degree of internal consistency (0.62 to 0.81), test re-test reliability of tool (0.60 to 0.85) in the domain for the total score was 0.83

( $p < 0.001$ ). Above 80 and mild level of ASD children was included in this study.

**Research design & procedure:** A quasi-experimental single group research design was used to investigate the effect of Piaget based cognitive tasks to enhance cognitive skills for ASD children.



**Figure 1: The One-Group Pretest-Posttest Quasi-Experimental Design**

The four-week Piaget based cognitive skills were conducted with 30 minutes per session and a total of 24 sessions, weekly six days in a week. Before starting the intervention program, the cognitive skills assessment scale was administered to measure baseline cognitive skills in children with autism spectrum disorders. The post-test was also administered after completion of the intervention program to measure cognitive skills in ASD children.

The stages of intervention were as follows.

**The first stage:** During this stage, consent was obtained from parents, taking case history details assessment was conducted to know the IQ and level of ASD children.

**The second stage:** Pre-testing conducted before the intervention training program to obtain baseline score on ASD children.

**The third stage:** Conducted intervention on ASD children.

**The fourth stage:** Post-test administered after intervention provided, cognitive skills assessment test and task performance rating scale were administered on ASD children.

**Intervention:** The researcher developed the intervention training program manual based on Jean Piaget's cognitive developmental theory, review of literature, and recommendation. Cognitive skill tasks were designed to target conservation, classification, seriation, spatial reasoning, direction, distance, and cognitive mapping skills. The learning objective in each session becomes more complex from the previous

session. Physical and verbal prompting was given to the children to complete tasks.

#### **Administration of Piaget based tasks**

Based on Piaget's cognitive theory and existing literature reviews, tasks were designed based on Piaget's cognitive theory concrete operational stage, and the following tasks were administered on ASD children.

#### **Conservation task**

**Conservation Task Length:** In this task, children were shown two sticks that were kept in front of the child, and the child was asked to determine their lengths as to whether they were short, long, or equal in length

**Conservation Task Number:** In this task, the researcher showed two rows of the counter placed in one-to-one correspondence. One of the row was drawn and asked whether each row was still had the same number.

**Conservation Task Liquid:** in this task, children were shown two glasses with the same level of water, and the child was asked to determine their equality as to whether they could identify the amount of liquid. The liquid of one bottle is poured into a tall bottle and asked the child whether each bottle is the same amount.

**Conservation Task Area:** under this task, children were introduced to the identical sheet of cardboard wooden block placed on the chart in an identical position, and the child was asked whether each cardboard had the same amount of shape in the area.

#### **Classification task**

**Shorting and Resorting Task,** in this task, the children were shown 36 various colored (red, green, yellow, and white) shapes and sizes (circle, rectangle,

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square, and star), and the child was asked to be categorized/ classified based on colored and shapes and size accordingly.

*Block Design Task:* In this task, children were shown wooden blocks along with pattern cards, and the child was asked to arrange the blocks according to the design shown in the picture. Block design gradually increased from a simple to a complex pattern. The child used the trial and error method it required more time to understand and perform this task the child.

*Seriation Position Task:* In this task, children were shown three different colored sticks, and the child was asked to the pairing of different colored sticks. By observing that stick A is longer than stick B is more extended than stick C, the child must make the mental inference that A is more extended than C. This task requires the child to assimilate triangulation at once A-B, B-C, A-C. The trial and error method used by the child required more time to understand and perform this task by the child.

### Spatial reasoning task

*Distance Task:* to perform this task, children were introduced to two small trees out of modeling clay, and it was placed on a table at which the child was seated. Next, put a block between the trees, and the child was asked whether the trees were nearer together, or still the same distance separately.

*Direction Task:* in this task, children were asked to tell or point out an object's name on his or her left and right side. The child was responding accordingly.

*Cognitive Map Task:* In this task, children were shown a set of worksheets that included various dots with numbers, and the child was asked to join all dots and numbers tighter.

### Results & discussion

The mean age (7.65years, SD= 1.18) and mean IQ (91.25, SD= 4.35) of the children with ASD was ascertained.

**Table 1: Descriptive statistics of Mean, SD, and Paired t-Test Score of the children on Cognitive Skills Test(N=8)**

Skills	Mean Pre-Test	Mean Post Test	SD Pre- Test	SD Post- Test	Paired t-test Score	Level of significance
Cognitive	67.35	85.12	14.19	17.04	6.20	.000

Table 1 suggests that score improved after the cognitive skills program provided to ASD children mean 85.12 than to children's score before intervention mean

score 67.37 and score on Paired t-test are 6.20 at .000 level. These results indicate that the intervention had a significant effect on cognitive skills.

**Table 2: Effects of Piaget Based Conservation task in Children with ASD (N=8)**

Conservation Tasks	Mean Pre-Test	Mean Post Test	SD Pre- Test	SD Post- Test	Paired t-test Score	Level of Significance
Length	2.75	4.25	.463	.535	7.00	.000
Liquid	2.50	3.75	.535	.707	3.98	.000
Number	2.13	4.25	.641	.463	7.60	.000
Area	1.88	4.75	.354	.707	10.28	.000

Table 2 Piaget based conservation tasks, the result showed a significant difference in the conservation tasks summary variable defined as the total of all four variables (length, liquid, number, area) before and

following the intervention (paired t-test score 7.00, 3.98, 7.60, 2.72 and 10.28 significance at .000). These results indicate an improvement in the conservation task following the full intervention for all 8 participants.

**Table 3: Effects of Piaget Based Classification Task in Children with ASD (N=8)**

Classification Tasks	Mean Pre-Test	Mean Post Test	SD Pre- Test	SD Post-Test	Paired t-test Score	Level of Significance
Shorting and resorting	2.00	4.75	.535	.707	8.75	.000
Block Design	2.38	4.38	.744	.744	5.37	.000
Seriation Position	2.00	4.50	.756	.756	6.61	.000

Piaget based classification tasks, the result showed a significant difference in the conservation tasks variable defined as the total of all four variables (shorting and resorting, block design and seriation

position) before and following the intervention (paired t-test score 8.75, 3.42, 5.37, -6.61, and -3.31 significance at .000). These results suggest the improvement in conservation task following the full intervention for all 8 participants (Table 3).

**Table 4: Effects of Piaget Based Spatial Reasoning Task in Children with ASD (N=8)**

Spatial Reasoning Task	Mean Pre-Test	Mean Post Test	SD Pre- Test	SD Post-Test	Paired t-test Score	Level of Significance
Distance	1.88	4.13	.835	.991	4.91	.000
Direction	1.75	4.50	.707	.756	7.51	.000
Cognitive Map	2.25	4.13	.707	.835	4.84	.000

Piaget based spatial reasoning tasks, the result showed a significant difference in the conservation tasks variable defined as the total of all four variables (distance, direction, and cognitive map) before and following the intervention (paired t-test score 4.91, 7.51, 4.84 significance at .000) (Table 4). These result improved the conservation task following the full intervention for all 8 participants.

Mean and SD values of the all three tasks, namely conservation, classification, and spatial reasoning cognitive tasks measures improved significantly after intervention. The children have demonstrated a better understanding of conservation, classification, and special reasoning abilities as a result of the intervention. They could make a more relevant understanding of cognitive skills. However, children showed better cognitive skills on the Piaget's cognitive approach.

### Discussion

The present study sought to examine the effect of Piaget's cognitive developmental tasks on the cognitive skills of ASD children. The present study's findings showed that the Piaget based cognitive tasks intervention efficiently improved the cognitive skills of children with autism spectrum disorder. These findings support previous studies investigating the effectiveness of cognitive skills intervention based on Piaget tasks in other countries. The child develops a logic of classes,

relations, and numbers at this stage. He or she may give reasons in terms of objects, but they could not link anyone objects to any other except. In this stage, children were able to make reverse actions. Following discussion had been made. Conservation tasks training provided to autism spectrum disorder on conservation task, it is categorized into four tasks. Conservation task length, children were presented with two sticks associated in front of the child and instructed them to admit their equity. Further, one of the sticks is the move to the right. The child was asked whether they were still the same. During the training session, repeated instructions were provided to the child after a few sessions, and they could perform better. Out of eight children, only six children were able to perform perfectly. However, two of them had poorly performed on this task. The second task is to provide training on this task equality. Further, one raw was drawn out, and the child was asked whether each raw still had the same number. During training sessions, it has been observed that the task was quite complicated for these children. This task was performed by a few children only.

Training provided on liquid. In this task, the child presented two jars (glass) filled to the same level with the water. The child sees that they are equal. The liquid of one bottle was poured into a tall bottle. Further, the

child asked whether each bottle had the same amount. Within a few training sessions, this task was performed by all eight children quarterly. Finally, training was conducted on the last task of conservation of area. During a training session, the child and researcher each have identical sheets of cardboard wooden block placed on the chart in an identical position. Further, the child was asked whether each cardboard had the same shape in the area. All children performed this task within a few sessions.

The training provided on classification tasks, namely shorting and resorting, was conducted on ASD children. In this task, the children were shown 36 various colored (red, green, yellow, and white) shapes and sizes (circle, rectangle, square, and star). Further, the child was instructed to place each card into the correct place, they are not told on what basis to sort the cards, but their first sorting strategy is rewarded with approval for a certain number of cards presented. After a run of correct shorting responses, the tester no longer accepts using the original sorting strategies simply saying no, incorrect. Literature reviews suggested that most people switch strategies. For example, if they were previously sorting by color, they switch to sorting by shape or by number. This task was completed by all eight children correctly. The block design task, children were instructed to arrange blocks as the design shown in the pattern cards. During training sessions, the researcher repeated the task as that child could learn this task by observing and imitating, the child used trials and error methods. All children were finished this task. Further, training was provided on seriation tasks like understanding serial position child was presented two different colored sticks, and the child was instructed to the pairing of different colored sticks. From observing that stick A is more extended than stick B is more protracted than stick C, Children must infer that A is more extended than C. Piaget's class inclusion task. Task requires children to assimilate triangulation at once, A-B, B-C, A-C. Training given to children at the initial stage children were confused but slowly understood the task. Within a few sessions, they were learned to perform the task. All ASD children performed this task.

Training provided on spatial reasoning, tasks were conducted on ASD children to understand and comprehend distance, direction, and cognitive map ability. Training conducted on distance task child was presented to make two small trees by modeling clay and place them separately on a table at which the child

is seated. Next, put a block between the trees. Then ask the child whether the trees are nearer or together or still the same distance separately. While providing training to ASD children, it has been observed that initially, they feel difficult to understand how to perform. After a few sessions' four children were able to differentiate distance. Furthermore, four children could not perform this task even given several sessions. The exposure was given on the task of direction. For this task, the researcher asked the child to name an object on his or her left and right side. For this task, very few training sessions were given to ASD children. They were able to perform this task perfectly. Intervention training provided to ASD children to understand the cognitive map, the child has presented a set of shapes and sizes of dots to joint and scribbling on the page which included circle, square, cross, triangle, diamond size, and dots simple to complex by using pencil and asked the child to draw as mentioned. Initially, children were needed to focus on a particular task. Children used the trails and error method. Gradually they have developed the ability to draw a picture as given. After a few sessions, children were trained to draw the above shapes without any error. Many investigations have been observed some particular deficits in the ability of autistic children to attend to several dimensions of a stimulus. The present study was supported by this study Lovaas, Schreibman, Koegel, and Rehm (1971) investigated the autistic children required more training sessions to learn this cognitive task and autistic children revealed marked performance for one of the components. Lancy and Goldstein (1982) studied concept-acquisition tasks administered on autistic children on the seriation task, height was the relevant dimension and children were required to choose the second tallest among four boxes. Finally, children were tested for understanding their understanding of numerical invariance. Results revealed that all normal and autistic children could solve the classification task by using the ability to categorize objects by shape, applying the rule, and applying this rule to solve the problem and reported that normal and autistic children were solved the classification task. The study also reported that most autistic children were also able to solve the ordination and seriation task. The present study supported by this study Sigman and Ungerer (1981) evaluated preoperational assessment procedures performance in many areas like multiple classifications, ordinal relations, and conservation of mass, liquid, and number. All these tasks utilized visual

stimulation as input and nonverbal motor responses as output and maximized the performance potential of autistic children. In this research, all autistic children were able to sort objects based on one dimension and used two dimensions, and only one categorized the objects by applying all three dimensions. Half of the autistic children passed the tasks of ordinal relations and conservation of mass, and two passed the task for conservation of length and number. Both studies suggested that when appropriately evaluated, some autistic children were capable of functioning at a stage as per their age. Another study conducted by Maltz (1981) reported that concrete discrimination (e.g. matching task) autistic children perform better than mentally retarded and the normal children and found that the deficits appeared to be comparatively to the amount of abstraction were necessary for problem-solving.

### Conclusion

The present study's findings support the efficiency of the Piaget based cognitive tasks intervention in improving the cognitive skills of ASD children. Piaget based activities were conducted, the result showed a progression of improvement on concept mastery on cognitive skills, which included conservation, hierarchical classification, and spatial reasoning for the experimental group, compared with pre-post test score on cognitive skills domain, the study had found significant improvements in social skill. Pre-test conducted for baseline skills of ASD children after completion of 4-

week intervention further post-test was conducted, and the score was compared with pre and post-test it has been observed that activity/task based on Piaget based approach had found to be effective on cognitive skills for ASD children. It indicated that the Piaget approach with a purposeful design effectively promotes positive improvements in cognitive skills for autism spectrum disorder children.

In light of the above, understanding about Piaget based cognitive tasks intervention program for ASD children, furnishing helpful information, understanding, meaning, and practice to guide and measure intervention effects for future research. However, the cognitive-based Piaget approach may be a valuable intervention for ASD children. The researcher recommends that the Piaget-based cognitive skill intervention incorporate the special education and rehabilitation of children with ASD in the Indian context. In particular, psychologists, special educators, and parents can use this method to improve the cognitive skills of children with ASD. In addition to this, future research needs to be conducted in the remaining stages of Jean Piaget's cognitive developmental approach on ASD children in the Indian context.

**Acknowledgement:** I would like to thank Dr. Subodh Kumar, Member Secretary, RCI, for his contributions concerning the construction of the cognitive skills assessment scale. Special thanks to Dr. Arpan Kumar, Director, OT for Kids for data collection work, and parents of children with autism spectrum disorder.

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# Human Resource Practices in New Normal and the COVID-19: Implications, Challenges, Opportunities on IT Industry

Received: 06 November 2021

Accepted: 11 December 2021

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## Abstract

*The entire world is in the effect of virus Coronavirus disease 2019 (COVID-19), which was first detected in Wuhan, Hubei, China in December 2019 and resulted in a continuing pandemic COVID-19 has had a significant negative impact on people, as well as many industries and business sectors. The office move to the home has been one of the main effects of the Covid-19 pandemic this led organizations to rethink their HR practices and strategies to survive this new normal. This paper specifies some HR practices that are necessary for an organization to cope with the new normal. One of the industries affected by the threat of covid-19 is the IT industry. At this point, the IT industry has taken up the task of helping other sectors as a result, the IT industry has transformed, entering a new age of digital transformation. This paper study the impact of coronavirus on the IT sector India highlights the changes. This article is prepared based on various reports and data published in different newspapers and online publications.*

**Keywords:** Coronavirus, COVID-19, New Normal, HR practices, IT sector

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The world has changed drastically, due to COVID-19 there are several negative impacts on humans, as well as various industries and economic sectors. The office move to the home has been one of the main effects of the COVID-19 pandemic this led organizations to rethink their HR practices and strategies to survive this new normal. Now nearly everyone works remotely, and companies are preparing to introduce themselves to the new normal. Organizations need to review their Digital Resilience, Intelligence Ecosystem, Values-Driven Business, and Empathy, as these four pillars will offer enough capability to keep companies operating in the new normal (Contributors, 2020). In late 2020, situations in India began to normalize, and most offices reopened. With the arrival of the second wave, however, interruptions and lockdowns have once again become the norm.

A new variety of SARS-CoV-2, B.1.1.529, was reported to the World Health Organization on November

24, 2021. This new variety was discovered in specimens taken in Botswana on November 11, 2021, and in South Africa on November 14, 2021. The B.1.1.529 Omicron was recognized and designated as a Variant of Concern (VOC) by WHO on November 26, 2021. The first confirmed case of Omicron in the United States was discovered on December 1, 2021 (Omicron Variant: What You Need to Know, 2021). The Omicron variation has an exceptionally large number of mutations, many of which are new and many of which impair the spike protein targeted by most COVID-19 vaccines at the time of discovery. By December 7, 2021, the variant has spread to over 50 countries. India has reported 26 cases of the Omicron variant of COVID-19 as of December 10, 2021 (NDTV News Desk, 2021). Union Health Minister Mansukh Mandaviya said on December 10, 2021 that 86 percent of India's eligible population has received the first dose of the COVID vaccine. In such a continually changing environment, it has become critical for businesses to adjust

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operational processes that reduce the impact of any changes in the organization.

### Objectives of the study

In order to survive this tough condition, businesses need to deal with this situation by framing proper plans. Therefore, the objectives of this study are:

1. To specify the HR practices that businesses should adopt in order to cope with the effects of coronavirus and to survive in this tough situation.
2. To highlight the impact of coronavirus in the IT sector.

### HR practices in New Normal

The COVID-19 crisis and subsequent shift to hybrid working patterns have increased the demand for new workforce skills in the areas of social, emotional, and advanced cognitive abilities. A dynamic policy-making approach that increases an organization's ability to be flexible, responsive, and adaptive to the changing environment is required in present situation.

#### 1. Hybrid Working becomes the new normal

Given the current situation, most firms' workforces are expected to work remotely. In any organisation human are the most vulnerable resources. To ensure efficiency and output quality, companies must ensure a safe and great employee experience while working remotely. An analysis by Gartner predicts that 48 percent of employees are likely to be working remotely, at least part of post-COVID-19 (Baker, 2020). Facebook, Google, and Sales force has extended work from home for their employees until the end of the year; Twitter announced that its employees can permanently opt for it. IT giant TCS has also announced plans to ensure that by 2025, 75 percent of its employees would be operating from home (Hindu, 2020). Such a shift is a blessing for women who are not able to continue with their careers because of family commitments. Nasscom Chairman Keshav Muruges said that the total number of such possible beneficiaries is in millions ([www.business-standard.com](http://www.business-standard.com))

“Work from home will establish a new trend for many sectors and will create new opportunities for us to be able to do more work globally,” said Neemuchwala, chief executive officer of Wipro Ltd. (Sharma, 2020). On phone interview from Hyderabad, R Chandrasekhar, former president of Nasscom told BloombergQuint that “With the industry entering one of its weakest periods in a long time, the work from home model could help companies save costs”. In work

from home, we can have a greater number of employees with the same number of seats so that the average cost of infrastructure per person falls (Sharma, 2020).

TCS's Chief Operating Officer N Ganapathy Subramaniam said the company is expecting to have only 25 percent of its staff work from offices by 2025, though it was not clear when the company decided on the target. “We don't believe that we need to have more than 25 per cent of our workforce at our facilities to make all the 100 percent productive. We don't believe that every employee needs to be present all the time in our offices. At the same time, we are seeing that productivity, the speed, the throughput of work has increased” Subramaniam added.

According to a Gartner research, by the end of 2021, remote workers will account for 32% of all employees worldwide, up from 17% in 2019. Furthermore, when offices reopen in 2021, 51% of those employees will work in a hybrid workplace, working at least one day each week from home. The benefit of having a remote workforce is overall costs decreased as a result of lower overall spending on rent, space, equipment, furnishings, and, in some cases, salaries. Even if they incur additional fees for software subscriptions and, depending on the agreement with the employee, computer and travel costs for face-to-face meetings, still organisations are saving on overall annual costs. If we talk about employee satisfaction, many remote workers stated that they prefer working from home. Individuals who are happy with their remote work arrangement also like spending time with their families, taking care of personal matters conveniently, and working outside of typical hours if necessary. Employees that are satisfied are better aligned with company goals and are willing to put forth the effort necessary to attain them. HR professionals will have easy access to a global workforce if they are equipped with the appropriate digital tools.

Some drawbacks of remote working are communication issues with human resources and managers because of the nature of a telecommuting situation. A good support system, as well as, teaching remote workers how to use the correct technologies, can help a lot. With the rise of cyber-attacks and data breaches, as well as the availability of technology tools

that may make even a new thief look like a professional criminal, businesses must protect their data while allowing employees to do their jobs. The second drawback is a lack of enthusiasm, without the occasional pat on the back and encouraging words in a live setting, some remote workers may become apathetic to their work in organizations. They may not dislike doing the job, but without the enthusiasm generated by physical interaction with their co-workers, work may seem like a task for them, even if working from home is convenient. Maintaining a work-life balance for remote employees is also a challenge, as learning employees are still learning to use new technologies. Working from home was once seen to be a casual affair with few expectations placed on employees but now it has become a full-time affair in some of the companies so employees are expected to be tech-savvy, organized, and available now that working from home is commonplace. There are deadlines to meet, as well as additional project objectives to achieve. Furthermore, some employees may regard necessary tools such as time-tracking applications as unpleasant and overbearing. Employees may feel left out if they work alone for days on end and live in a different time zone, preventing them from attending monthly in-person business meetings.

Organizations can mitigate these drawbacks by implementing endpoint security on selected devices that have access to company data, as well as using encrypted email to secure data on public networks. Employees' online privacy can be protected by providing virtual private network services, which allow them to access servers anonymously. Furthermore, using a secure digital remote work environment where employees log in and may access data, documents, and apps while ensuring the security of sensitive data can be solution to protect remote employees. Organizations should try to recruit not only qualified candidates for the job, but also those who like learning and working independently. A remote employee may be more inclined to leave an unmotivated employment, leading in a high percentage of employee turnovers. Proper interviewing techniques, on the other hand, can aid firms in screening out candidates who find striking a work-life balance too tough. Discussions with co-workers who are working on similar works or regular one-on-one interaction among remote employees and virtual coffee breaks and inspiring activities can help

employees be refreshed and engaged motivate to work.

Many companies are also reopening their doors and welcoming back their employees at work some employees may be afraid to leave their home offices. According to one survey, 66 percent of employees were concerned about returning to work because of health and safety issues, so the company can send detailed the health and safety measures it had taken, including following social distancing guidelines, requiring quarantining for those who had been exposed to the virus, reminding everyone that office cubicles do allow for social distance, disinfecting surfaces, performing random temperature checks, and installing acrylic shields in shared offices to make employees feel safe to join their work from office. Allowing employees to choose whether to work in the office or remotely, as well as seeking their feedback, can assist satisfy this requirement. Staff can gain confidence by discussing the thinking process behind the criteria for reopening the office. Smaller businesses may use their size to their advantage by providing information during all-staff meetings or in one-on-one interactions. Firm leaders might discuss some of the potential advantages and share them with employees to put the return to work in a better way. Remind employees in communications that returning to work is an opportunity to see old friends and offer support to one another as the year progresses (Dennis, 2021). A substantial move toward hybrid working arrangements, which incorporate the benefits of both remote and in-office employment, will most likely occur.

## **2. Emphasis on Employee Social Safety and Wellbeing**

HR would need to concentrate more on employee safety and overall emotional welfare after realizing the anxiety and tension of the COVID-19 pandemic. After COVID-19, companies will continue to concentrate on the health of workers and their emotional wellness. HR teams should extend their role in employees' lives and ensure healthy interactions between individuals. Proper use of Employee Support Plan, and other wellness services, HR can provide counselling services to employees and their families on mental, legal, emotional, and financial issues and group sessions with qualified counsellors on topics such as Mindfulness, Building Resilience, etc. it will allow the employees to

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stay optimistic during these periods, especially those suffering from trauma or loss it will help them to decrease their anxiety about isolation, vent their fears, de-stress. Company can also give Care / Crisis Leave in case an employee cannot work because of personal constraints (Top Priorities for The HR Function to Adapt to the New Normal, n.d.)

Companies have to make systemic improvements for factory workers, or field workers like rethinking processes, physical setups, and safety measures, they have to address the conditions employees need to work harmoniously from their home. Organizations need to redesigned workspaces (including factories and retail outlets) and processes that embed the requisite distancing at work sites and offering remote workers with tools and benefits including office furniture, fast Wi-Fi, and help with childcare that address their needs (Top Priorities for the HR Function to Adapt to the New Normal, n.d.)

Keshav Murugesh, Chief Executive of business process management player WNS and former Chairman of IT industry lobby grouping Nasscom, said the association responded to the challenge by helping its members transport over 25 lakh desktops from offices to associates' residences within a fortnight, which ensured work can continue. The first wave of covid led organizations set up the required infrastructure, benefits, culture and practices. Because of the severity of the second wave, management prioritized employee well-being over business operations. Thus, the core of wellbeing is to focus on the contiguous aspects that enhance the experience of employees like clarity at work, a supportive work environment, and the capacity to apply control over the structure of their work life.

### 3. Employee Monitoring, Engagement and data collection

Gartner's study reveals that 16 percent of employers actively use software to monitor their workers through methods such as virtual clocking in and out, tracking the use of work machines, and monitoring emails or internal messages / chat from employees. While some organisations monitor productivity, some assess employee engagement and well-being to better understand the experience of workers (Baker, 2021).

COVID-19 caused significant disruption and weakens employee engagement due to the remote working of employees, it compelled organizations to

reimagine engagement and communication with employees to keep them updated on what is going on within their company. An organization's culture is created and maintained by its employees. Employee engagement and connectivity to leadership will be crucial to ensuring that workers feel linked to the company. Jayanthi Vaidyanathan, Senior Director, and Head - HR, PayPal India shared in an interview with ETHR World that they hosted their first-ever virtual engagement initiative, Kids@Work to help support their PayPal employees so that they can balance work and home. The three-day event was attended by over 600 children and included a host of fun-filled activities like painting contests, Zumba sessions, shadow puppetry workshops, and much more. This initiative was aimed to reduce the burden on working parents and provide a platform that would help ensure that their children are engaged creatively and do not miss out on the fun of learning at the same time. They also celebrated PRIDE month virtually by inviting guest speakers and encouraged employees to share their Pride message and videos. They had also announced a 'Global Wellness Day' where all employees were given a day off to re-energize and spend time with their families. They also organized meditation and yoga sessions for employees and their families (ETHRWorld, 2020)

Organizations more than ever need to have strong leaders. Leaders need support at the personal, team, and institutional levels to encourage resilience. HR managers need to redouble their initiatives and efforts to recognize them. Effective recognition motivates the recipient and at the same time serves as a powerful signal of the behaviours they should emulate to other employees. Recognition can take many other forms than monetary incentives, such as public recognition, tokens of gratitude, opportunities for growth, and low-cost benefits. It reflects the devotion of the company to the employee's long-term performance (*Top Priorities for The HR Function to Adapt to the New Normal*, n.d.) HR executives must aid their workers in every manner possible, including being empathetic, checking in on their well-being, and providing emotional as well as other forms of support. Staff appreciation drives employee engagement, which is important during COVID-19's dispute.

### 4. Use of Artificial Intelligence (AI)

During the early stages of the pandemic last year, most companies saw the disruptions as a temporary issue and developed workarounds. However, scientists are already expecting the third wave of the pandemic,

which would require policy changes and long-term digital transformation. All businesses should now secure remote logins, increase digital capacity and bandwidth, and implement comprehensive cybersecurity measures.

While coronavirus has “fast-forwarded” behavioural improvements to work from home, Nasscom’s Chandrasekhar said companies will need to rapidly advance their digital infrastructure ([www.bloomberquint.com](http://www.bloomberquint.com)). In the post-pandemic environment, there will be increased use of artificial intelligence (AI) in the work of HR. AI can help recruiters find potential candidates from megabytes of job applications and help businesses not only achieve their diversity goals in the hiring process but also retain top talent and connect through smart applications with employees.

Organizations have recognised the importance of digital technologies not only in their way of doing business, but also in the way they communicate with their internal customers, their staff, said Shaakun Khanna, Head-HCM, APAC, Oracle ([hr.economictimes.indiatimes.com](http://hr.economictimes.indiatimes.com)). After the unexpected disruption of the coronavirus pandemic, organisations are now shifting to intelligent automated systems that offer virtual screening environment and interviewing expertise, rather than performing interviews in person. Organizations would need to achieve a perfect balance between cognitive, emotional, and cross-cultural intelligence. As the ‘Distributed Workforce’ will form the bulk of the employee base, this will be super important, and physical encounters will be minimal. Implementing AI-based systems would improve the ability of companies to continuously extract information from man-machine interactions. This intelligence ecosystem would have a direct impact on the ability of the organization to survive in the new normal.

## **5. Re-skilling and Training**

In a recent Gartner survey of 113 learning and development leaders, 71 percent said that more than 40 percent of their employees needed new skills as a result of COVID-19 job changes (Baker, 2021). Most employees across many industries and many job functions have had to work remotely in the last few months. This means that, from a technological and a logistical point of view, nearly all staff needs the skills necessary to thrive in a remote work environment. The

pandemic has also triggered the digital revolution which is just around the corner as e-commerce and emerging technology have become more commonly used. For those that have been laid off because of a pandemic or are facing instability in their current employment, now is the time to learn to retrain or develop digital skills to prepare for positions that are expected to become highly challenging as companies begin to resume operations.” COVID-19 coronavirus pandemic has caused massive disruption around the globe and is accelerating the need for brand-new technology skills, according to CRN. That’s because many businesses don’t operate at least partially – if not entirely – through employees who work remotely from home. As businesses fall from the initial phase of enabling employees to work remotely, IT investments will need to be made in new areas in order to prepare for anything that may lie ahead. Companies can organize online certificate courses for their employees, it will also act as a motivation for the employees that they are still worthy and can grow. These services can help them manage tension, develop a positive mindset, and remain productive under the remote model of work.

While productivity and employee engagement and experience have been core areas of focus, the function had to pivot and recraft strategies right from the fundamentals of hiring to virtual onboarding, training, and skilling of employees.

According to Simplilearn a training provider enterprise survey, the way companies conduct skills training has been affected by lockdown-related constraints. Organizations that had previously offered physical classroom skills training have transferred those programs online. Online programs are equally or more effective than in-person classroom training. Digital skills training become important to most companies now. Functional learning that is being emphasized by the pandemic includes artificial intelligence/machine learning, digital marketing, cloud computing, and cybersecurity. The shift to online business models is having an impact on learning plans. From these results, it is clear that the pandemic has increased the importance and demand for digital skills education.

### **Indian IT industry**

In India, information technology is an industry made up of two main components: IT services and business process outsourcing (BPO). The sector increased its contribution to India’s GDP from 1.2 percent in 1998 to 7.7 percent in 2017. According to NASSCOM, in 2019 the sector aggregated revenue of US\$ 180 billion,

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with export revenue of US\$ 99 billion and domestic revenue of US\$ 48 billion, rising by more than 13 per cent. Through 2020, India's IT sector has 4.36 million employees. The US accounts for two thirds of India's IT services exports. India is the biggest IT exporter in contemporary world economy. Exports dominate the Indian IT sector and make up about 79 per cent of the overall revenue of the company. The domestic market is also important, however, with strong growth in revenues (Wikipedia contributors, 2021b).

### **Current Situation at IT organisations due to Corona:**

In the post-coronavirus era, companies may undergo a transformation and the IT sector may be the biggest gainer. In order to allow their location-independent agile delivery models and stable borderless workspaces, most IT companies have digitised all their processes and invested in cutting edge technology and collaboration technologies.

Over the last few decades, the IT industry has been the leading economic growth sector in India. It plays an imperative role in fulfilling dreams and is an aspiring career for the middle-class aspirants of the nation. Consumers are expecting to cut their IT expenses and slow down new projects due to fear of an unstable economic condition and a recession.

Due to restrictions in air travel and closure of cities and countries to control the spread of the Covid-19 pandemic, Indian companies have recently faced many project cancellations by customers across sectors.

The Indian IT industry is all set to leverage the new opportunities by conquering the challenges through new sources of revenues as digital technologies gain more impetus, offering flexible contractual terms, focusing on emerging technologies on skilling with the industry putting these learnings to make it better prepared for handle such situations if they resurface in the future.

Krish Shankar, Executive Vice President and Group Human Resource Head at Infosys, said that the pandemic has shown that remote work is possible without any loss of productivity. "The future of work is going to be a hybrid one a blend of remote working and office work. It would improve the industry's talent pool." Experts said that if the hybrid model of working from the workplace and from home is implemented, it would lead to cost savings for IT companies by reducing

their real estate spending. ([www.business-standard.com](http://www.business-standard.com))

### **Promising Opportunities and Threats in the IT industry:**

#### **The Challenges**

According to a NASSCOM study that surveyed 160 respondents in April 2020 across the IT/ITES market, including BOM, software products and ER&D companies, 75 percent of respondents expect clients' business de-growth in FY20-21, with 40 percent of these respondents expecting a de-growth of 5 percent or more. Accordingly, 70 percent of the survey respondents expect FY20-21 revenues to be negatively affected in the midst of a slowdown in global demand. Key short-term effects of global disasters such as Covid-19, however, would enable organisations to include the minute details of their contingency plans, like Cost Structure of contracts being revisited, Discretionary initiatives that are stopped or re-scoped, De-prioritization of Innovation PoCs with undefined ROIs. According to Nasscom, what will happen to the IT industry after the pandemic is over is a threat. Exporters in this industry will may feel that, unlike the global economic and financial meltdown in 2008, it will not be able to recover after the recession. Central banks helped boost financial stability back then, but even central banks are now helpless. ([community.nasscom.in](http://community.nasscom.in))

According to Neemuchwala, chief executive officer of Wipro Ltd., the new normal also depends on the customer's approval to continue working from home. "It's not a technical capability but it is also customer comfort." ([www.bloomberquint.com](http://www.bloomberquint.com)). It is also expected that the introduction of a model with a higher degree of remote working would change the offshore-onshore distribution capabilities for IT players. IT services players are now looking at whether they need to retain employees in all regions where they work when work can be done remotely," said Pareekh Jain, Pareekh Consulting's IT outsourcing consultant, and founder, adding that offshoring is likely to see a spurt in the post-COVID world." For most IT services businesses, the offshore-onshore ratio currently stands at 80:20, where the majority of the work is performed from offshore locations like India. It is also expected that the COVID-19 outbreak will bring improvements in the outsourcing contracts to the business continuity plans of IT services vendors. Currently, the business

continuity plans of IT businesses only take into account possible regional disruptions ([www.business-standard.com](http://www.business-standard.com)).

### **The Opportunities**

Problems remain yet the IT companies are expecting to recover as they expect strong growth in strategic technology sourcing that will become a key component of the overall tech strategy. New prospects are also emerging as businesses reviewing their digital transformation journey with high-speed, secure infrastructure and multi/hybrid cloud leading as key investment areas for technology. The key tech themes remain data, artificial intelligence, IoT, and cybersecurity ([community.nasscom.in](http://community.nasscom.in)).

According to IDC 's 2020 forecast, world IT spending is expected to decline by 5.1% in 2020, with all segments experiencing a decrease, while cloud spending is expected to remain robust.

According to Stephen Minton, program vice president in IDC's Customer Insights & Analysis group, "Infrastructure spending is still projected to show modest overall growth as organizations continue to finance existing cloud deployments and some might also look to accelerate their cloud ventures over the rest of the year as a way to manage costs and delay capital spending on improvements to on-premise datacentres and applications. Most of it's in the cloud where there is growth. Overall software spending is now expected to decline as businesses delay new projects and application roll-outs. On the other hand, the amount of data that businesses have to store and manage doesn't go anywhere. More and more data will be stored, managed, and more and more analyzed in the cloud.

For both large and mid-tier businesses, the share of digital has continued to increase, reflecting the rising demand for digital. In order to include global disruption contingency plans such as COVID-19 'V Balakrishnan, the former CFO chairman of Exfinity Venture Partners and member of the board of Infosys stated that IT companies are expected to enforce clauses in a post-COVID setting that will enable them to operate in work-from-home mode without the consent clauses in case such events recur. Force majeure clauses that are more complex are also likely to be part of the arrangement in the future. Even after all this, the IT industry is projected to have an immense business boom relative to many other sectors, from US\$ 131 billion in 2020 to US\$ 295 in the next five years by 2025. Increased demand for apps and social media channels such as Google Hangouts, WhatsApp

Video Call, Zoom, and Microsoft Teams is the key reason for this economic boost for this industry. Almost all of these teleconference tools help people in quarantine keep in contact with their family members, as well as hold conference meetings and work simultaneously. The economy will also grow because people have realised the value of the internet and technology during these crises as this allows us to stay healthy and help connect between doctors and the public. According to NASSCOM President Debjani Ghosh, India's tech industry has a big opportunity with the increasing adoption of pandemic-led technology. With increased penetration, the IT industry must now look at restructuring its business models and focusing on the requirements of its core clients. He said "We are moving into a hyper-digital world where everything is going to be influenced by technology. I think COVID, perhaps 100 times more than anyone else out there, has accelerated the speed of digital transformation. In the last few months, we have seen a digital transition that we have not seen in the last few years". (Ltd, n.d.).

### **Conclusion**

The entire world is in the grip of COVID-19. Along with the social and economic crisis, the pandemic has triggered a global health emergency, creating a breakdown in economic activities and business operations. This has serious consequences for the global business community. Therefore, this study has put forward the effect of coronavirus on the IT sectors Indian economy and also highlights some HR practices that are necessary for an organization to cope with the new normal. However, every organization should prepare for the complexities and difficulties that occur due to coronavirus during this present pandemic scenario. In order to maintain this challenging era, they need to be proactive and should develop strategies to combat the effect of COVID-19. In order to strive and prosper, they need to consider possible impending changes in the business environment and should recognize the possibilities. The spread of COVID-19 and subsequent lockdown negatively impact various industries and people in multiple ways. Many organizations are unable to operate the business and deliver to their customer. But at least the IT industry is consecrated to allow their employees to work from home and manage the business. This is possible because of its nature of the electronic format of delivery for their remote customers globally. The IT industry is

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projected to have an immense business boom relative to many other sectors, from US\$ 131 billion in 2020 to US\$ 295 in the next five years by 2025. Because of the coronavirus, a lot of possibilities have opened up in the IT industry, such as the growing need for 5th generation (5 G) technology. This has become the highest priority for many organizations due to the pandemic. Telehealth, in crisis situations, is one of the emerging markets. IT sector is also facing challenges, according to Nasscom, there is a threat like, what will

happen to the IT sector after the pandemic is over. Exporters in this sector may feel that it will not be able to recover after the recession, unlike the global economic and financial meltdown in 2008. According to a report by Nasscom, 75% of the respondents expect clients' business de-growth in FY20-21, with 40% of these respondents expecting a De-growth of 5%. According to experts, the IT industry must now look at restructuring its business models and focusing on the requirements of its core clients.

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# Multidisciplinary Research in the Social Sciences: Breaking new grounds

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Received: 25 November 2021

Accepted: 15 December 2021

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## Abstract

*This article is a commentary on the importance and inevitability of multidisciplinary research (MDR) in academia and in everyday life. The current epidemic, natural disasters, and human-induced crisis scenarios throughout time and space have presented both obstacles and possibilities to recover, re-strategize, and reinvent how each global citizen reacts to and lives through these events. The study is an attempt to comprehend the dynamics of multidisciplinary research, which has quietly established itself across disciplines in recent decades, as well as the concerns and challenges confronting the social sciences. Multidisciplinary research is still in its infancy.*

**Keywords:** Research, collaboration, myriad settings, strategy, change, efficiency, qualitative, participatory

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The Social Sciences have a critical contribution to make, in helping us understand, imagine and craft a more sustainable future for all. Social science is the science of understanding people's needs and their unique relationship with art, literature, history, music, work, philosophy, community, technology and psychology. Science is intimately integrated with the whole social structure and cultural tradition. Parsons, the dominant social theorist in the United States until about 1969, views values as the heart of culture, as they give meaning to what individuals do, guide their lives, and unite people. Thus, these "cultural characteristics" contribute to the functioning of society (Parsons 1966). Parsons believed that all lasting social systems strive for stability or equilibrium while maintaining a strong sense of social order and interdependence among institutions. He argued for an objective external world that can be empirically understood through concepts generated by the subjects' ideas, beliefs, and actions.

'Research is nothing but a blind date with knowledge', said an anonymous social scientist. It has always been the basis for innovation, initiatives, policy decisions and more across academia and in public and civic life. Research and researchers, over across different disciplines have made important contributions

in every sphere of human activity, through sharing of their findings in many ways. In recent years, research has evolved and changed keeping pace with the context and needs and issues of the time. As the world grapples with the COVID-19 pandemic and its changing manifestations, the research sector has seen a mushrooming and collaboration of information and knowledge sharing in diverse areas as medicine, therapy, sociology and more. This collaboration has manifested in several thought provoking insights into human behavior, medical advancements, interventions, spatial mapping, literacy dissemination and more. The convergence of diverse approaches in resolving certain issues through the research process has been called multidisciplinary research. The relevance, issues, challenges are highlighted in the following pages.

## **Relevance of Multidisciplinary Research: An overview**

Two decades into the new millennium, the world continues to face evolving difficulties on a variety of fronts, both man-made and natural. While governments, policymakers, medical professionals, law enforcement, and civil society continue to grapple with the current pandemic, researchers have been in the forefront of efforts to find a treatment for the latest plague. Historically, research has been a back bencher

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but a game changer in terms of critical decisions and solutions across multiple disciplines and problems.

Regardless of specialization, a multipronged strategy spanning medical, technical, banking, administrative, social, and political systems has arisen today in the fight against the pandemic's primary adversary, covid19. It has also established a new standard and will continue to be one of the most effective techniques in the future. Multidisciplinary research has been identified as a solution, a strategy by nearly every country in the world for addressing a variety of socioeconomic-legal difficulties and issues. News broadcasts from throughout the information highway demonstrate the enormous prospects and possibilities for humanity's safe zones. It is the interaction of widely disparate domains of human activity. The response to the raging COVID19 epidemic has demonstrated the importance of teamwork, collaboration, resource allocation, and knowledge exchange. These are visible in hospitals, policy-making rooms, on the streets, and in the banking and educational sectors. How? Lockdown and social distancing have been established, and the use of masks and hand sanitizer has become nearly automatic; implementing these measures has been a continuous process of brainstorming sessions based on research findings and feedback from key stakeholders. The pandemic has revealed a Pandora's box of dark secrets: mismanagement of funds and priorities, flagrant civic irresponsibility in everyday behavior, social norms, and mores, varying degrees of social and political will; communication gaps between policymakers and the public; the diversity and complexity of issues; and the necessity of cross-disciplinary research collaboration across disciplines as diverse as medicine, banking, sociology, and psychology, among others. Thus, it is critical to be alert, to share knowledge, and to document the same more vigorously.

#### **Why Multidisciplinary Research?**

The industrial revolution, which began in the early 18th century, wrought widespread and profound changes in practically every facet of life. The evolutionary process of change has been examined and studied extensively, resulting in a wealth of knowledge spanning numerous scientific disciplines, theoretical formulations, and applications to a variety of systems and institutions. Three millennia later, the world has awoken, shaken by natural disasters, human errors and calamities, great scientific achievements ranging from moon landing to space exploration, cutting-edge and life-saving technologies and drugs, and innovative

approaches to resolving myriad problems through a combination of approaches tailored to the situation's needs and demands, and much more.

#### **Going beyond the technical jargon: understanding Multidisciplinary research**

Multidisciplinary research involves the use of appropriate approaches/techniques drawn from different disciplines to redefine problems. It is based on one's domain knowledge and experience and understanding of complex situations and the means by which they can be tackled. Examples include the Tsunami, COVID19, Chennai floods, bush fires; political assassinations, financial scams.

It is a combination, collaboration and coordination of several techniques and approaches utilized by interrelated disciplines/academic interests. Working in tandem with other disciplines on a parallel/sequential basis is appropriate for social scientists of the present times, in the same way as a medical team is required in different stages in a surgery which involves coordination between different medical specializations; and even in postsurgical care and rehabilitation involves utilization of psychologists and social workers. Thus, a multipronged strategy drawn from different disciplines geared to patient care is in place. Even this care and support varies in myriad settings and situations. For example, medical-legal-socio-economic-administrative settings and an understanding of all these issues and the processes involved is necessary. This is seen in practice in most institutional settings.

Multidisciplinary research approach provides a framework to understand the complexities of human relationships, communication, behavioral patterns and response mechanisms in different contexts. It involves 'outsourcing of knowledge' and sharing the same towards solving or resolving an issue or problems across different settings. Such researches enhance problem solving in critical societal issues and also provide flexibility and clarity in conceptual thinking, which provides a pathway to innovate according to the context. Example includes the interventions in natural disaster management such as floods, earthquakes. News reports would reveal how this approach was used to save lives, property and reduce destruction to a great extent.

It is a combination of theoretical approaches from different disciplines that are applied in various ways in terms of awareness generation, advocacy and action. The period of the ongoing COVID-19 pandemic has thrown up challenges in so many ways. Understanding the need to combat and neutralize the threat has resulted

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in greater knowledge sharing by different stakeholders. This has resulted in greater awareness; greater adherence to safety protocols, vaccination and other safety measures the world over.

### The Issues

Multidisciplinary Research is a term that refers to the synthesis of approaches from numerous disciplines, ranging from the natural and social sciences to business and economics, medicine and psychology, yoga and sports, in any given context. From classroom teaching in schools and universities to corporate training, mentorship, and counselling, to yoga and wellness therapies, surgeries, and financial inclusion and education, there is something for everyone. By observing facts, doing literature reviews, conducting recorded interviews, and conducting laboratory testing, several disciplines of human activity have collaborated to develop solutions to situations that demand action. This has been practised for a long period of time and is also documented. The method and tactics have evolved in response to breakthroughs in science, technology, and other closely connected sectors. The excessive specialization and fragmentation of social sciences has resulted in research delays due to academic responsibilities, deadlines to meet, and work stress. These factors have contributed to increased stress levels in academics, business, healthcare, and practically every other arena of human activity. Subject overlap, information overload, and lack of information dissemination/sharing are other significant challenges. There is a lack of understanding regarding the 'why, how, when, where, and what' of conducting multidisciplinary research, the numerous procedures, the techniques used, and the necessity of all of these. Conservative approach to new ideas is still an issue and reluctance to utilize opportunities for the larger and individual good with long term focus is also lacking.

Mushrooming of institutions, departments, courses that state that they are interdisciplinary/multidisciplinary without any background knowledge or data is also an issue.

Identification of teaching and research faculty, in terms of qualification and experience in imparting skills to students to undertake multidisciplinary research is yet another issue.

Keeping up with recent improvements in knowledge updating and sharing in simple-to-use, accessible, and economical formats is another difficulty. While information and library sciences continue to attract significant interest across academic, corporate, and

government sectors, the fact remains that they are under utilized for a variety of reasons best understood to individuals and institutions.

### Challenges

The obstacles of undertaking multidisciplinary research are enormous in today's rapidly changing and expanding environment. There is a discernible paradigm shift when only one strategy is used in education, for example. "The chalk and talk approach" has evolved into a bouquet of educational offerings, including the incorporation of online lecture classes through the establishment's network connectivity, training of both students and faculty in its use, guest lectures, and the use of folk media, the arts, sports, and yoga, to name a few have led to a sea change in terms of opportunities for the learners and the learned.

Another difficulty is determining the boundaries of one's discipline. How far and in what form may one intervene in fact-checking without intruding on another researcher's domain? For instance, study into the efficacy of yoga therapy in the management of disease/injury. This requires the coordination of many observation and documentation methods, therapy by all participants: the medical professional, the yoga therapist, the researcher, and the care seeker, as well as the use of technology, training, and good information exchange. Access to information and resources varies considerably between fields. This is a hard process of knowledge exchange in terms of connection with persons in positions of authority and influence, and hence differs by discipline. While the internet has significantly narrowed the gap, obtaining critical and authentic information about any subject or scenario remains challenging. Additionally, an abundance of information contributes to the confusion. The filtering process needs to be clear, easy to navigate, and smooth too.

Learning to work together and going beyond the realms of one's own knowledge space, being flexible and open to ideas is a challenge in itself. A doctor may have different views regarding the nature of a treatment for a patient based on the test reports of a patient. But the fact that is being realized today and is increasingly apparent is a shared approach to patient care: that a combination of medication and therapy and counseling will work much better in the long run. The researcher can help bridge this gap by Recognizing the immense potential of collaboration and team work, accepting and acknowledging the differences and also individual contributions is also vital for multidisciplinary

research to work it is the integration of knowledge for the larger good that will also be sustainable and replicable.

Navigate and negotiate approach vis a vis the situation, the needs and demands for a research, understanding and accepting that conducting a research with other disciplines as a part of the process, where each part (discipline) plays an important role in contributing to successful outcomes.

Access and affordability and necessity are equally important issues. Funding is a major challenge for any research. This is even more so, where different disciplines are involved and complex issues are addressed.

### **SWOT Analysis**

#### **Strengths**

Increase in contact with and collaboration with different disciplines will enhance the qualitative appeal of this functional arrangement; will reduce or lessen the biases in research that is unavoidable; more studies in this regard is necessary.

Multidisciplinary Research involves minimum effort but with maximum impact in terms of outcomes and the entire processes involved. Planning is vital so too is communication; open and flexible communication channels are a key ingredient in this regard. For example, the green channel utilized now in critical care where ambulances transport the patient to a medical facility across vital roads in a busy city; how the coordination works involving many departments. These have multiple benefits for doer and receiver/the researcher and the researched. This is Multidisciplinary Research in operation.

Example of Multidisciplinary Research in a medical settings and in trauma care, diabetes and cancer care, and mental illness needs a synchronized approach across disciplines and now the medical field is using it as in referrals, teleconferencing, telemedicine and interventions like yoga therapy, counseling, medical and psychiatric social work to name a few. It has improved health outcomes in terms of efficient use of resources and enhanced job satisfaction for the medical/research team when success has been achieved in patient care. In the long run, the benefits far outweigh the costs initially incurred. With a dedicated research framework in place, it will help in enhancing the communication process much faster aided by technological advancements like cloud, drones, Artificial intelligence and more.

#### **Weaknesses**

Periodic training of all personnel is lacking and not seen as a necessity, while faculty Development programs are a part of the academic program, they are more a measure to get NAAC grading. The groundwork is minimal far as research is concerned. Moreover, the professional approach is limited; biases and prejudices and stereotypes between academic disciplines serve to limit working together and sharing knowledge too; research in social sciences are still seen as cumbersome and a necessity for promotion and publication, rather than as a means to enhance one's learning process to be a better professional and research is still limited to just publications and as a theory paper in academia. It is not seen as a lucrative career in many ways.

#### **Opportunities**

Both Qualitative and participative research approaches have become acceptable and multiple voices can be heard; use of multiple forms of communication including technical and social media; subjective meaning of a situation, event by the participants (patients, clients, customers, general public, students) make it a rich source for documenting and sharing knowledge; a greater scope to explore creative approaches that have stood the test of time in handling problems eg story telling, puppetry, folk arts; documenting these multiple strategies that have proven successful, especially for children, the elderly, mentally ill, persons with disabilities to name a few is an important step and enhance the quality of research.

#### **Threats**

The major threats includes complacency (what works in one sector may not work always; similarly the successful outcomes may not always be possible); time and financial constraints; lack of enthusiasm for research due to time consumption, sometimes unnecessary and boring works with limited remuneration; external control, administrative glitches, mismatch between capability and willingness and commitment to research; gaps in communication of information, resources, decisions and also poor access to the right information.

#### **How Multidisciplinary Research can work in the social sciences**

Multidisciplinary researches can be designed, planned and executed by focusing on Retrospective studies as the researchers can get insight from similar and related studies/research in the past.

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Personal narratives of best practices across different disciplines can also be used, e.g. engineering and quality of life seen in senior living accommodation projects in real estate sector. Similarly, collaborative and complementary streams in health care sector e.g. yoga therapy, Allopathy and Ayurveda, homeopathy, counseling and mentoring for persons with disabilities creation of knowledge hubs and clearing houses of research, accessible websites, will be a ground breaking initiative to facilitate knowledge sharing and resources in every institution or government. These are an ongoing agenda but there is limited knowledge.

Student research internships will provide opportunity for students to earn and learn and thereby tapping the inherent potential of youth and it will give fresh insights to tackle problems of a diverse nature. Social media interface, leveraging the use of social media platforms

to propagate the best practices in collaborative research and their benefits can also be utilized.

### **Conclusion**

In a nutshell, research is a scientific search for knowledge based on observation, review of studies, interviews. It is a process of collating facts by documentation, using techniques drawn from different disciplines. This collaboration, i.e. multidisciplinary research will ensure greater transparency and efficiency. In the long run, it will help in formulating suitable policies at the government/administrative level; facilitate greater efficiency in sharing of knowledge and technology, streamlining resource allocation in different settings at different times; will ensure a continuity of data in terms of preparedness for the good and bad times too. Multidisciplinary Research is here to stay, overcoming barriers and roadblocks in academia and governance will pave the way for sustainable development.



# Consciousness, Cognition, Neuroses and the Practice of Rajyoga

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Received: 13 November 2021

Accepted: 18 December 2021

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## Abstract

*The Indian philosophical tradition believes that Self or Soul is the source of Consciousness and which one experiences through the five senses by means of attention, intention, thoughts, desire, memory, beliefs, ideas, attitude, action and behavior. Effort is made to explain the relationship between Consciousness and human cognitive processes and their bearing on neurotic symptoms. Additionally, it is explained how the Indian and Western psychologies understand Consciousness and its application in real life by referring to the practice of Rajyoga. It is contended that when the physical location and the role of Consciousness is understood, it is likely to facilitate the cognitive capabilities of individual and helps in modifying behaviour and reduces anxiety, stress, depression (i.e., neuroses) and gives protection from life- style diseases.*

**Keywords:** Consciousness, Cognition, Neuroses, Rajyoga, Indian Psychology, Cognitive Psychology

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In Indian Psychology, Consciousness is known by different names such as, Self and Soul. It is said that the Self/Soul cannot be cut, burnt, wetted nor dried up. It is eternal, all-pervading, stable, ancient and immovable (Vyasa, Ch.2, Sloka 24). The Indian thought pronounces, 'I am' Consciousness or Consciousness is 'what I am'. It submits that Consciousness can be experienced when the mind is 'quiet' or is in 'silence' because there is no expenditure of mental energy in silence and hence, 'I' remains what it is. Therefore, focusing attention on silence can be used as a paradigm similar to sensory deprivation, to study Consciousness without content (Paoletti & Ben-Soussan, 2020). In case, the Self or 'I' wishes to connect with the external world, situations or objects, I, the Consciousness move from 'myself' towards the five senses.

### Self -Awareness/Self Realization

The Indian thought also envisions the 'Self realized' ascetic as well as householder. It is said that 'Brahmic bliss' consisting of absolute freedom exists for the self-controlled ascetic or householder who is free from desire and anger, and has controlled his thoughts. In Upanishads, the Self and the Supreme-Self both are known as *Brahman* and Consciousness is also a synonym for Self-Awareness. Self-Awareness also means Self Realization in Indian philosophy and

psychology, though psychology refers to the strength and weakness of the individual person as Self-Awareness. Moreover, Self-Realization refers to being aware or Self-Consciousness with or without physical cognizance.

However, the authentic meaning of Self Realization is to develop an integrated personality with divine-moral virtues while performing activities of day-to-day life. Notably, this conceptualization of Self Realization appears to be close to the notion of Self-Realization as presented in Maslow's theory of Hierarchy of Needs. **The infinite horizon and categories of Consciousness**

The idea of infinitely enlarging the horizon of Consciousness refers to envisaging the whole universe as situated in Consciousness. That is, (i) seeing no boundaries of Consciousness, (ii) considering the visualized boundaries as not the true boundaries of Consciousness, and (iii) being aware that Consciousness is always beyond this boundedness (that we seem to see) and in that sense, it is a 'conscious boundedness' (Taguchi & Altobrando, 2020).

It is suggested that all phenomenological states fall into two categories of Consciousness, Core and Extended (CC and EC, respectively). CC supports *minimal self-hood* that is short of temporal extension,

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its scope remains, 'here and now.' EC supports *narrative self-hood*, involving personal identity and continuity across time, memory, imagination and conceptual thought (Ohana & Glicksohn, 2014). Three more forms of Consciousness have been argued to exist. They are- Perceptual Gist, Imagistic Consciousness, and Phenomenal Consciousness. A fourth form that is likely to be more successful is known as Conscious Entrainment which is a form of Consciousness associated with skilled behavior in which attention is sometimes absent (Jennings, 2015).

However, the Self or Consciousness is not known by the weak, by the thoughtless, by those who do not rightly meditate (concentrate or are attentive) but it is known by the rightly meditative (attentive), thoughtful and the strong (Sages, Mundaka Upanishad p.68).

### The states of Consciousness

The Mandukya Upanishad mentions four states of Consciousness: Waking, Dreaming, Deep Sleep and Self Consciousness. Love of God is said to be the ultimate state of Self-Awareness according to Vyasa, (2000), and Rajyoga (Shiva, 2020). In Rajyoga (Shiva, 2020), the state of Self-Awareness is explained as a combination of being (a) 'Incorporeal' or detached from physical consciousness, (b) becoming 'Egoless' or humble (c) 'Viceless' that is, virtuous with qualities of peace, love, happiness and remaining free from lust, anger and greed.

In the cause-and-effect relationship, 'mind and matter' are said to be the cause *in* the experience of pleasure and pain, while the soul (consciousness) is said to be the cause (Vyasa, Ch.13, Sloka 21). It means Soul or Consciousness experience pain and pleasure through the process of thinking (mind) and by focusing on external objects (matter) through five senses.

### Location of Consciousness

There has been the riddle in Indian philosophy and psychology asking "Who am I? The answer for the riddle is: "I am, Consciousness, the embodiment of peace, love and happiness. It is 'me,' the Consciousness who sees through eyes, hears through ears, feels through skin, tastes through tongue and smells through nose. And, I can feel the exact location of the point of consciousness, in silence, within my brain as I am the one who sees through eyes" (Shiva, 2017). Koch defined neural correlates of consciousness (NCC) as the minimal neuronal events sufficient for a specific conscious percept (Bear et al., 2007). Kindermann and Auinger (2018) observe that brain structures involving the thalamus and hypothalamus play

a crucial role in the Cannon and Bard theory (1927). Accordingly, perceived sensory stimuli arrive in these regions of the brain, leading to simultaneous changes in the body and in feelings

Rene Descartes' depiction of the pineal gland (aka third eye), is suggested to be the central relay station of Consciousness i.e., the "seat of the soul" (Gallagher & Tsuchiya, 2019). The eye is the dwelling place of Consciousness when we are awake, and mind, the dwelling place of Consciousness during the dream (Sages, Aitareya Upanishad p.97). Having entered into the senses, Self identifies with them and when an individual awakens (detaches) from these threefold states (i.e., waking, dreaming and dreamless sleep), he realizes Self - Consciousness (Sages, Aitareya Upanishad p.97). It is said that the immortal Self is the 'inner ruler' who is Unseen, but sees, is Unheard, but is the hearer; is Unthinkable, but is the thinker; is Unknown, but is the knower. (Sages, Brihadaranyaka Upanishad, p.159).

Regarding the '**location**' of Consciousness, the Upanishads say that Self - Consciousness glows in the depth of the eyes as the eyes are the abode, and ether the support of Consciousness, (Sages of Chandogya Upanishad p.102, 108). And he, who knows Consciousness to be the life of life, the eye of the eye, the ear of the ear, the mind of the mind, is able to comprehend the cause of all causes (Sages of Brihadaranyaka Upanishad p.165, 179). Consciousness extends all over the body and the Universe, it's point of origin is in the brain since we become conscious only because of the brain.

According to the Indian scriptures, when we focus on a point, the energy from the Consciousness flows towards the point and returns back to the center of the forehead or center of Consciousness.

The 'verily liberated' state commences when all external contacts are shut, the gaze is fixed between the eyebrows, the outgoing and incoming breaths moving within the nostrils are equalized, the senses, the mind, and the intellect are constantly controlled and 'liberation' is the supreme goal, free from desire, fear and anger (Vyasa, Ch.5, Sloka 26-28). This is experienced by the practitioners of meditation by knowing that it is attention that sees not the eyes, it is attention that hears not ears, it is attention that speaks not mouth, it is attention that feels not the skin or touch, it is attention that thinks, not something that is called mind. And attention is nothing but a synonym for Consciousness. And this attention or consciousness

happens from the centre of the forehead just behind the eyes, very close to the pineal gland.

### Consciousness and cognition

Cognitive psychology proposes scientific investigation of human cognitions or mental abilities (Lu & Doshier, 2007). Cognition and Consciousness are meaningfully related. Accordingly, when Consciousness moves from its 'silence' and focuses on external objects it is called 'attention'. It is generally acknowledged that attention and perceptual consciousness share an intimate relationship and when an observer pays attention to an object, he or she becomes conscious of the many attributes of Consciousness. Alternatively, when attention shifts away from the object, the object fades away from Consciousness. It is due to such close-knitted relationship that many scholars posit that the two processes are inextricably entangled, if not identical (Posner, 1994; Jackendoff, 1996; Velmans, 1996; Merikle & Joordens, 1997; Mack & Rock, 1998; Chun & Wolfe, 2000; O'Regan & Noe, 2001; Mole, 2008; De Brigard & Prinz, 2010; Prinz, 2010 as cited in Van Boxtel et.al., 2010).

A key historical precursor to 'working memory,' the Jamesian concept of 'primary memory,' was identified more or less directly with the contents of Consciousness. Many modern theorists also see a close connection between working memory and Consciousness (Buchsbaum, 2013). It is argued that thought can generate organic lesions and those who are able to keep the peace of their inner self in the midst of the tumult of the modern city are immune from nervous and organic disorders (Carrell, 1935, p.78).

It is generally believed that memory has to do with 'remembering' which is a conscious experience. For instance, remembering an event now, means being consciously aware of something that happened on an earlier occasion (Endel, 1985). Notably, as 'I' or Consciousness remains partly or fully focused on objects, 'I' becomes aware of those objects, and the more the 'I' becomes aware of the objects, the objects get recorded in the Consciousness and turn into 'memory.'

Further, Consciousness creates 'intention.' Attention along with 'intentions' and 'memories' comprise 'thoughts.' Therefore, it may be said that 'I' or Consciousness is the creator of 'thoughts.' Additionally, 'beliefs' and 'ideas' (that are kinds of thoughts) develop 'attitude' which is expressed in behavior. Further, it

has been observed that people's attitudes follow spontaneously and consistently from 'beliefs' accessible in memory leading to corresponding behavior (Ajzen & Fishbein, 2000). In this context, it may be said that Consciousness and cognitions seem to evolve through interaction with the environment, involving both attention and intention (Liljenström, 2011). The following insights may be drawn regarding Consciousness and its relationship with cognition:

- ◆ Consciousness is experienced in silence
- ◆ Consciousness can create thoughts via intention
- ◆ Images and thoughts are recorded in consciousness (called as the 'conscious' and 'subconscious' minds by Freud
- ◆ Conscious or aware of experiences, actions and behaviour that are expressed through beliefs and ideas are known as attitude.

### Neuroses

Neurosis is a mental disorder that causes a sense of distress and deficit in functioning and anxiety, depression, or other feelings of unhappiness/distress comes within this umbrella. They impair a person's functioning virtually in any area of life; however they are not severe enough to incapacitate the person. Affected patients generally do not suffer from the loss of the sense of reality seen in persons with psychoses (Britannica, 2018). The individual may fail to cope with the stress, or may have maladaptive coping. What seems certain in neurosis is that the individual preserves his/her link with reality, maintains an organization of personality, has grasp over social relations and associations, and the person's insight into the problems is intact.

### The Indian traditional world view on redeeming the psyche from distress

The Vedas take into account the attributes of *sattwa*, *rajas* and *tamas* when talking of redeeming the psyche from distress. In Bhagavad Gita, Sage Vyas writes that Lord Krishna asks his disciple, the great warrior Arjuna (Human being with Neurosis), deeply shaken and stunned by anxiety at the prospect of shedding blood (the weakness) of his near and dear ones (lust, greed, anger, attachment and ego) in the battlefield of Kurukshetra (day-to-day life), to free himself from the pairs of opposites (pain and pleasure) and remain in the quality of *sattwa* (that brings goodness-benefit for self and others). *Sattwa* being a state, free from the thoughts of acquisition and preservation, helps the mind remain calm and 'established in the Self' (Vyasa, Ch.2, Sloka 45). It is

explained that the man free from desires (for selfish reward), is content, his mind and senses are purified, he beholds the glory of Self (Consciousness) and is without sorrow (neurosis).

Similarly, there is an understanding regarding the process of freeing the psyche from sorrow. For instance, it looks at Consciousness as the 'driver' of the vehicle comprising the human mind (thoughts) and body. Understandably, it is easier to maneuver the mind-body vehicle by having control (attention) over Consciousness. On the contrary, the western psychology focuses on human beings in the Auto-pilot mode giving less or no attention over the 'driver,' (i.e., the Consciousness), therefore, treating the disorders without setting right the cause of diseases. However, the real cause of mental disorders is the lack of control or attention over Consciousness and its mental activities. After its banishment as an epiphenomenon by behaviorist psychology, consciousness has recently again been declared to be the central problem of psychology (Huilgard 1980; Miller, 1980; Neisser, 1979 as cited by Endel, 1985).

The following conditions are considered helpful in freeing the psyche from neuroses-

### **1. Remaining watchful (attentive) of the wandering thoughts, emotions and attention**

Depression, anxiety and stress result from the long association with wandering thoughts. Neurotic individuals tended to report more mind-wandering during cognitive tasks, lower working memory capacity, and poorer attention control (Robison, Gath & Unsworth, 2017). If shifting Consciousness can be kept away from negative thoughts and brought back to Self-Consciousness, 'I' will easily overcome anxiety, stress and depression. That is, with the back-and-forth movement of Consciousness, 'I' remains detached and attached to thoughts, feelings and emotions according to the individual's choice.

Therefore, the idea is to shift attention from the negative wandering thoughts towards Consciousness or positive thoughts (that benefits self and others). For example, when Consciousness focuses on sleep, it experiences drowsiness; however, when Consciousness shifts awareness to Self or silence or any immediate danger, the 'I' feels light, and alert. It is like a game of one moment drowsiness, and next moment lightness or alertness due to the immediate danger. By practicing to put attention on Consciousness, one may experience negative emotions of anger and anxiety at one moment. However, by shifting the

attention towards the source at the 'next moment,' one would experience peace and lightness, free from mental burden.

Furthermore, mood and anxiety disorders are associated with deficits in attention control of emotions and emotive stimuli. Similarly, depressive symptomatology is related to general deficits in attention control. This deficit does not appear to be driven by distracters or inhibition difficulties as expected, but by impairments in goal-directed information processing (target facilitation) in the presence of competing information (Pike et. al., 2020).

### **2. Keeping the senses under control**

According to the Indian worldview, the 'senses of the wise man' obey his mind, his mind obeys his intellect, his intellect obeys his ego, and his ego obeys the Self or Consciousness. In other words, he who meditates or concentrates on the 'ruler' (Consciousness) of the 'city' (body), knows no more sorrow. For such a man, the Self revealed in his own heart, experiences eternal peace - to none else, (Sages, Katha Upanishad p.27,30,33,35).

It helps to understand that when Self-Consciousness is associated (and continues to do so) with the body or its senses, these become subject to pleasure and pain and there is no freedom from pleasure and pain. However, as the attachment towards the external objects and the senses ceases, pleasure and pain cease to exist and only goodness, peace and happiness remain. In other words, rising above physical consciousness, knowing the 'Self' as distinct from the *senses and the mind* and knowing the Self in its true light, makes one joyous and free. (Sages, Chandogya Upanishad p.127)

### **3. Understanding the incapacitating consequences of having desire for, and attachment to external objects**

'Desire for, and attachments to external objects,' nicely complement the first point which asks to 'keep the senses under control.' Understandably, a prominent source of sorrow (also frustration and anxiety) is 'desire.' It is generally true that when a man thinks of desired objects, he/she also feels an attachment to them. However, this does not stop here and there is desire to own/possess the object. In case this does not happen, anger arises and from anger comes delusion leading to loss of memory of the Self, God and Self-Sovereignty. Ultimately, from loss of memory, the discretion to discriminate is gone and with annihilation of discrimination, all is lost and perishes.

On the other hand, the self-controlled man, moving amongst objects with the senses under restraint, and free from attraction and repulsion, attains peace. In peace, pain is destroyed and the intellect of the tranquil-mind becomes steady (Vyasa, Ch.2, Sloka 62 - 65). The point is, 'I' can remain peaceful by not focusing on external objects and by concentrating on inner silence. Vyas in Bhagavad Gita says, that like the tortoise which withdraws its limbs on all sides, the man of steady wisdom withdraws his senses from the sense-objects, (Vyasa, Ch.2, Sloka 58).

#### 4. Changing the maladaptive ways

The management of neuroses progresses in the same line "psychologically" as the patient is helped in changing the maladaptive ways of handling the situation (Dholakia et. al., 2015). The frequent occurrence of emotional disorder prior to, and accompanying psychosis indicates that neurosis contributes in the development of psychotic symptoms (Freeman & Garety, 2003). Stress and anxiety lead to neuroses and psychoses and are even associated with non-communicable diseases (NCDs) like heart diseases, diabetes, cancer, stroke, addictions and depression. NCDs are often preceded by stress-related metabolic syndrome i.e., hypertension, high cholesterol, truncal obesity, and reduced responsiveness to insulin (Fricchione, 2018).

Perhaps, the Self or 'I' can solve problems, without getting too engrossed or lost into problems, leading to clarity and stress-free life as it focuses on activities, games or studies, without getting distracted from external situations. Creative people are better at adjusting their focus of attention. Apparently, their flexibility confers distinct advantages to them in the course of problem solving as changes in the structure of the problem necessitates corresponding adjustments in solution strategy (Vartanian, 2009)

#### 4. Remaining a detached observer

Apparently, it helps redeeming the psyche from distress (neuroses) by practicing to become a 'detached observer' to create and control the thought process which is called mind. This becomes possible when the observer intervenes and controls the activities of the thought process (mind). Because it is the Consciousness who is the creator of new thoughts (intention and desires), it is the Consciousness who remembers the past thoughts from the memories, known as subconscious or unconscious mind by Freud. Vyas elucidates that whose consciousness is not shaken by adversities, who does not hanker after pleasures,

and who is free from attachment, fear and anger, is called a sage of steady wisdom (Vyasa, Ch.2, Sloka 56). Moreover, having made pleasure and pain, gain and loss, victory and defeat the same, action performed for the sake of one's righteous duty, obliterates all the scope for incurring any sin (Vyasa, Ch.2, Sloka 38).

#### Redemption from neuroses: The case of Rajyoga

It is contended that cognition and Consciousness are connected to each other and help in prevention and control of neuroses. The observations at this instance refer to the practice of Rajyoga which observes that: *It is me, (the Consciousness), who can focus with full attention, I can choose to focus upon positive thoughts and situations in place of placing the focus/attention on negative thoughts and state of affairs that are the cause for depression and anxiety.* Cognitive theories of depression posit that selective attention towards negative information contributes in sustaining depression (Beevers et. al., 2015).

Rajyoga deals with prevention of diseases and complete cure of neuroses by practicing self-control over Consciousness either with focused attention, or by experiencing love and compassion (Shiva, 2017, p.57). Self-control over Consciousness is practiced throughout the day while performing actions but in solitude. This is easily practiced by remembering God because by connecting to God, it becomes easier to move the Consciousness from the world of worries to silence and thereby, feel love, compassion, lightness, happiness and bliss (Shiva, 2017, p.16). Those who are not able to develop focus or attention to practice Rajyoga, may need to undergo Counseling sessions or emotional healing sessions like hypnotherapy (Dana, 2018).

#### Step by step procedure for Rajyoga (Proposed by Spirituality Health and Inner Values Academy, 2020)

- ◆ ! First, stare at a point (focus attention), feel love and compassion
- ◆ ! Second, connect with God to easily detach from day-to-day thoughts or situations
- ◆ ! Third, experience the inner peace, love, compassion and happiness that happen naturally as Consciousness detaches from stress, worries and day-to-day responsibilities
- ◆ ! Fourth, practice performing daily actions with focus on positive emotions

#### Meditation for realizing Consciousness

Attention and self-control are essentially related to meditation while discursive thoughts and emotions are contained. Meditation not only augments focus and attention but can enhance empathy, attention capacities and quality of life (Mograbi, 2011). In the case of 'compassion meditation,' emotional sensibility is increased. The significant difference between "one-pointed concentration" to "compassion meditation" has been pointed out. In case of "one-point concentration" *activation of emotional areas* is restricted. However, discursive thoughts are not primarily important in either form of meditation.

To realize true Consciousness, initially it is important to control the outgoing senses and harness (control) the mind (thoughts). Focusing or meditating upon the 'light in the heart' (i.e., upon pure Consciousness) is distinct from the ordinary consciousness of the intellect. The Brihadaranyaka Upanishad says that the virtue of him who meditates on the kingdom of the Self is never exhausted; for the self is the source from which all the virtues spring (Sages, p.133). Notably, in meditation there is constant and unceasing remembrance of the Self, therefore, all attachments are loosened and there is freedom (Sages, Chandogya Upanishad p.119).

Meditation helps experiencing the Self, the inner reality behind the physical appearance. With the support of the mind and the intellect, the senses detach from attaching themselves to the objects of pleasure and get purified by the light of the inner reality. Sages of Swetasvatara Upanishad acclaim that the wise men control their minds (thoughts) and unite their hearts with the Almighty (p.190). Bhagavada Gita in its numerous shlokas proclaims, that those who, fix their minds on 'Me' (the Supreme God, the Only One who constantly and eternally remains free from Neuroses), worship 'Me,' always steadfast and endowed with supreme faith, are the best in Yoga (Vyasa, Chapter. 12, Slokas 2, Chapter. 2, shloka, 61, Chapter 7, shloka 18).

Meditation is the 'right knowledge' followed by reasoning, discrimination, bliss and unqualified ego. While *Samadhi* is attained by constantly practicing cessation of all mental activities, and the *Chitta* holding only the unmanifested impressions. The concept of *Purusa*, is presented as an ideal image of man who is untouched by misery as he remains unperturbed by the results of actions or desires because, he is relentlessly devoted to *Isvara*, the Supreme Ruler (Patanjali, Ch.1, Verses 17, 18, 23, 24). *Samadhi* commences after sacrificing all to *Isvara* (Patanjali

Ch.2, 45). One moment in action we are in meditation and next moment in the space between action or thinking process, we move on to *Samadhi*. Throughout the day if we keep shifting from meditation and *Samadhi* while performing our daily routine, there is no scope to develop neuroses.

### **Values in life of an 'integrated personality' who is loved by the society**

An integrated personality is loved by the society and is an ideal personality. The Indian philosophical tradition conceptualizes it in a very profound manner. Accordingly, an integrated personality manifests and practices higher order spiritual values and perceptive qualities. Similarly, an integrated person, hates no creature, is friendly and compassionate to all, is free from attachment and egoism, is balanced in pleasure and pain, and is ever forgiving and ever content. Such a personality is steady in meditation, has firm conviction and is self-controlled in mind and intellect.

Moreover, he/she is dedicated and devoted to the Supreme Consciousness (God), does not agitate the world, nor is agitated by the world. He/she is free from sensual pleasures, envy, fear and anxiety and is dear to God. An integrated personality is free from selfish wants, is unconcerned, and untroubled, is capable of renouncing all selfish undertakings or commencements and is a true devotee. Having an integrated personality helps come closer and become dear to the Super power/ Higher Consciousness or God.

Bhagavad Gita describes an ideal human being, (the truly integrated personality) and a true devotee of the Lord in the following words. "*He who neither rejoices (selfish pleasures), nor hates, nor grieves, nor desires (selfish desires), renouncing pleasure (of 5 senses) and evil, and who is full of devotion, is dear to Me. He who is the same to foe and friend, and in honor and dishonor, who is the same in cold and heat and in pleasure and pain, who is free from attachment, He to whom censure and praise are equal, who is silent, content with anything, homeless, of a steady mind, and full of devotion—that man is dear to Me. They verily who follow this immortal Dharma (doctrine or law) as described above, endowed with faith, regarding Me as their supreme goal, they, the devotees, are exceedingly dear to Me* (Vyasa, Ch.12, Sloka 13 - 20).

### **Conclusion**

For understanding the cognitive process and the role of Consciousness one needs to become a 'detached observer' of the cognitive processes and act with self-

control. When there is constant self-control, there is the possibility for choosing one's thoughts and related emotions. Consequently, with freedom to choose, there are no distortions, in what we see, think, speak, and act or in our choices that would lead to stress, anxiety or neuroses. If we are able to prevent neuroses, it helps prevent and control psychoses and life-style disorders of non-communicable diseases. The restoration of man, leading to harmony of his physiological and mental self will transform his universe (Carrell, 1935, p.165). It has been proposed that Rajyoga is a way of life transforming psychological, biological and social factors to benefit self and others (Dana, 2021). When we understand that Consciousness is just a synonym of Attention and if there is attention in our every thought, word and action, every moment, we will naturally choose what is good for us and others. And when there is nothing to be done, we will rejoice in our natural qualities of peace, love, happiness, joy being combined with Divine. When I know what I am choosing in my action and inaction, when I choose myself in both action and inaction in every moment of my daily routine, I remain free from stress, anxiety

and other neurotic illness.

It is my consciousness that remains focused at one place which is near to me or it gets connected with far away objects. And both types of awareness happen within my brain. Hence, I am in control of all that is happening within me. It is me, the Consciousness, who chooses to remain in the five states of awareness like awake, sleep, dream, remain silent or get lost in my sweet nature that is much similar to the nature of God.

To remain free from stress and neurotic diseases, we remain attentive constantly, with attention I attach and detach with my senses as per the need but not under compulsion, I choose what is good for me and others instead of coming under the influence of my greed for pleasures or succumbing to past memories of pain, With information of psychological, biological, social factors, I perform those actions that are beneficial for me and others. And being self-motivated and self-controlled, with all the daily experiences, I develop values and virtues developing my personality to be acceptable for myself and the society with love and care for one and all.

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