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# Voice of Research

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## EDITORIAL

With the terror of corona virus, the world is undergoing critical phase. Although the virus is fast enough to spread and attack the human harmony but human is no less for the fact is that with the complete control on the movement of the human, due care of the authorities and government and strong adherence of control on movement by each individual, this virus can exist no more. The lessons from the first infected country with complete readiness to control the virus strongly recommends isolation. China did it and India has posited controls to avoid the situation. This situation creating panic is not at all good but this terror has posited several questions one of which is how is the country ready to face such a situation. Most of the countries that is the best in infrastructure, instructional facilities and technology were hardly able to cope up with the situation. This situation asks us to check if we have enough health and medical facilities to cope up with such a situation. Apart of this there are several other questions posited by the situation and the precautionary steps as such- Did we panic with the idea of lock down? Did the people behave wise enough? Did we really understand the idea of government when it declared the schools and colleges closed for students? How many of us used the technology to add to the education? Are we ready to bear the stress of the control posited by the government during this situation? While this terror is increasing, even though the honourable Prime Minister of India has emphasized on humanity without being afraid of economic consequences, are we able to cope up with the meetings conducted by the authorities, talking all about the economic betterment of the organisation? Are the online or virtual classes so effective as the live classes? What is the mental health of different people of different SES? What trauma did the daily wage workers undergo and why? While the authorities expect the teachers to prepare the case study, research papers and innovative lessons etc., does our mental health permit us to write it in this panic situation? Is the expectation of the authorities to write research papers in this situation worthy? Because of lack of readiness to face this situation, have we been enough human to anyone coughing and sneezing? How human are we when we are just hit with the idea of risk of our own life? Are we really developed with respect to our own health? Merely with luxury, leisure and best infrastructure, can we be called to be developed, safe and secured with respect to our health? Each employee adds to his/her organisation then how many organisation and organisational heads cared for their employees? What was the mental situation of the employees where some of the organisations (especially in teaching field) asked their employees to report twice- at morning about the proposed work to be done during the day and evening to report the accomplished work? Did they treat it as if the employers questioned the trust as well if they were so unworthy that like the daily wages workers they need to report with the proof of their work.? Does humanity prevail? Is economy the only need and can we remain human only with economical development? What is the status of the physical, social, mental, emotional, aesthetical or spiritual health of each of us in the current scenario? What is the status of the same when we are self locked? There are many more questions that come up and each of it is a severe indepth research opportunity and we invite such researches. For this March issue, I am happy to say

that researchers are researchers all the time. This issue comes up with several topics like emotional competence and self-esteem, psychosocial consequences, job satisfaction, awakening women, yoga as a connecting link, yoga and diabetes mellitus, B-school provoking new product, brand impairment testing and euthanasia law are directly related to life, psychology, education, management and entrepreneurship.

To add to psychology, Kaur studies the role of emotional competence and self-esteem with irrational beliefs; Singh presents the psychosocial consequences of being strangers in a familiar land whereas Sharma focusses on the job satisfaction. To add to the social science, yoga and education, Thokchom talks about awakening women whereas Thangalakshmi; Lu, Huang and Li presents yoga as the bridge to link traditional culture between India and China whereas Subramanya, Kashinath, and Natesh Babu measures the effect of yoga on psychological states, sleep and emotional intelligence. To add to management and technology, Serpe talks of teaching science fiction writing in a B-school to provoke new product or service ideas, Rangafocusses on brand impairment testing disclosures and compliance. To add to law Basu studies the law relating to euthanasia in India whereas in general Sharma talks of India Vision 2020.

With a hope of best for the mankind, appreciating and paying tribute to all those who have supported this fight against corona directly or indirectly, I am sure this issue will enlighten the potential researchers and the society as well it will help us all ponder about the real idea of development which starts with the health whether physical, social, mental, emotional, aesthetical or spiritual.

With the hope of best for mankind,

Avdhesh Jha

Chief Editor

Voice of Research

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**EMOTIONAL COMPETENCE AND SELF-ESTEEM AMONG  
ADOLESCENT STUDENTS: ROLE OF IRRATIONAL BELIEFS**

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**Abstract**

*Irrational beliefs are attitudes and values which people hold without any objective evidence. Such thoughts typically clutter the minds of people with feelings of resentment and distaste which creates a lot of problems in a person's life. Irrational beliefs effect the functioning of an individual by lowering the skills emotional competence and self-esteem. Although the concept of irrational beliefs has received extensive attention, yet the concept needs to be addressed covering varied aspects. The present research aimed to examine the relationship of irrational beliefs with emotional skills and self-esteem. For this purpose, Shortened General Attitude and Belief Scale (SGABS) by Lindner, Kirkby, Wertheim, & Birch (1999), Social Skills Inventory by Riggio & Carney (2003) and Self-Esteem Inventory by Coopersmith (2002) were administered on 300 (150 females and 150 males) participants. The correlation coefficient was used to analyze the data. Findings of the present study revealed significant negative correlation of irrational beliefs with emotional skills and self-esteem. Implications of the findings have been discussed.*

**Keywords:** *irrational beliefs, emotional skills, self-esteem and adolescents*

Early adolescence, which encompasses the first years of the transition from childhood to puberty, is a developmental period during which experiences of negative feelings such as anxiety, shyness, depression, and anger are intense. Early adolescence period poses disadvantages regarding irrational beliefs, emotional skills and self-esteem. Irrationality means any thought, emotion or behavior that leads to self-defeating or self-destructive consequences, which significantly interferes with the survival and happiness of the organism. Koopmas, Sanderman, Timmerman and Emmelkamp (1994) have defined irrational beliefs as “unrealistic reasoning processes by which external events are interpreted and through which emotional distress is mediated.” More specifically, irrational behavior usually has several aspects: (1) people who have an irrational behavior significantly denigrate or refuse to accept themselves; (2) irrational behavior interferes with their ability to get along in a satisfactory manner with the members of their significant social groups; (3) it seriously blocks their ability to achieve the kind of interpersonal relationships that they would like to achieve; (4) it hinders their ability to work joyfully and in a gainful manner and (5) it interferes with their own best interests in other important respects.

Ellis has differentiated between (rational beliefs) and (irrational beliefs) arguing that in rational-thinking, people tend to be relative in their judgments and evaluations using mostly such words as maybe, possible, probably, etc. This way of perception and visualization creates in them self-consistency and adaptability to reality which will lead to feelings of consent, efficacy, comfort, and stability. In irrational-thinking, people tend mostly to make absolute and resolved judgments and most often use such words as must, should be, ought to be, supposed to be, etc. Such judgments and perceptions in most cases contradict with the self and life realities, which add another form of emotional stress like anxiety, depression, and sadness (Dryden, 1999).

## ***EMOTIONAL COMPETENCE AND SELF-ESTEEM***

The consequences of irrational, rigid convictions regarding negative trigger events will be uncomfortable and are called inadequate negative consequences, whereas the consequences of rational, flexible convictions regarding negative trigger events will not be embarrassing, and are called adequate negative consequences (Dryden & DiGiuseppe, 1990).

Ellis (1994) has been remarkably consistent over the years in his view that there are basically four types of irrational beliefs. These are as following: Demanding beliefs (often expressed as must, absolute should, have to's, oughts, etc): The person is insisting that she gets what she wants or does not get what she does not want; Awfulising beliefs (often expressed as 'it is awful that...', 'it is terrible that...' it is the end of the world that...'etc.): the individual who holds such that no good situations could possible come from this awful state of affairs; Low frustration tolerance (LFT) belief (often expressed as "I cannot bear it," "its intolerable," 'it's too hard, etc.): the beliefs that they do not have withstand the negative conditions that they are facing or think they will encounter; Depreciation beliefs: The individual assigns a global negative evaluation to i) oneself (self-depreciation), ii) another person or group of people (other depreciation), or iii) life conditions (life depreciations).

According to Davies (2006), irrational beliefs mean those illogical and rigid views about events which are inconsistent with reality. These beliefs consequently lead to self-disturbing behaviors. Also, they are linked with poor individual functioning and individual adjustment. On the other hand, rational beliefs are logical and flexible.

### **Emotional Competence/ Skills**

Emotional intelligence was described formally by Mayer & Salovey (1997) as "the ability to perceive accurately, appraise, and express emotion; the ability to access and/o; generate feelings when they facilitate thought; the ability to understand emotions and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth."

Goleman (1995) defines Emotional intelligence as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in the relationships." Research on emotional intelligence (Mayer & Salovey, 1997; Goleman, 1995) has gained much attention and has revived interest in the study of individual differences in emotional abilities, in social intelligence and in the measurement of basic social skills. The ability model (Mayer & Salovey, 1997) of emotional intelligence includes abilities to identify/encode others' emotions, accurately express/ encode one's own emotions, and monitoring and regulation of felt emotions, among other elements.

Emotional competence is the ability in which one is aware and able to manage one's own and others' emotions, as well as the skill to regulate emotional experience within oneself (intrapersonal) and to be effective in interactions with others (interpersonal) (Humphrey et al., 2010; Shamlou, 2003). Additionally, emotional regulation is the scrutinizing, evaluating and appropriate modification of emotional reactions (both positive and negative) in a socially appropriate manner. The development of this skill is specifically important as it can influence other personal attributes and affect how do children think about themselves and interact with their world (Eisenberg et al., 2004; Eisenberg et al., 2014; Sharifi, 2005). There are various factors which might affect emotional skills such as anxiety, anger, low self-esteem, depression, etc. Cognitive

processes affecting emotional skills include negative self-evaluations, excessive high performance standards, unrealistic expectations, misperceptions and irrational beliefs (Civitci&Civitci, 2009). Extensive work has been done on the problems of adolescents but limited literature has been seen the relationship between irrational beliefs and emotional skills. Establishing the relationship between irrational beliefs and emotional skills in early adolescence may shed light on the way that cognitive structures of adolescents which are an important element of emotional skills operated in this period.

### **Self-Esteem**

Self-esteem is a term which reflects overall emotional evaluation of his/her own worth. It is a judgment of oneself as well as an attitude towards the self. Self-esteem includes beliefs (e.g., “I am competent”, & “I am worthy”) and emotions such as a triumph, desires, pride and shame. Smith and Mackie (2007) defined it as “self-esteem is positive and negative self-evaluation as in how we feel about it.” Self-esteem is also known as the evaluative dimension of the self that includes the feelings worthiness, prides and discouragement (Newman et al., 1975). One’s self-esteem is closely associated with self-consciousness. Self-esteem is a disposition that a person has which represents their judgments of their own worthiness. In the mid 1960s, Rosenberg and social learning theorists defined self-esteem as a personal worth or worthiness. Branden (1969) defined it as “the experience of being competent to cope with the basic challenges of life and being worthy of happiness. Thus, self-esteem is an important component for the growth of an individual. Self-esteem is not a trait but a process of evaluation of an individual his/her own worth. Therefore, it is influenced by many other factors like family environment, perfectionism, social skills and irrational beliefs.

A study conducted by Horan (1996) has shown that students with more irrational beliefs have shown the below average self-esteem. Further, computer intervention targeted irrational beliefs which are linked with low self-esteem. Both rationality and self-esteem favored cognitive restructuring. Another study by Nielsen et al. (1996) have demonstrated that specific irrational beliefs found to be correlated with low self-esteem, the control treatment focused on iBs not empirically related to self-esteem. There were two cognitive restructuring interventions. Each intervention produced appropriate change on targeted irrational measures. The self-esteem improvements of the subjects within each treatment were consistently related to changes on the previous linked with beliefs. Sava et al. (2011) have studied the relationship between irrational beliefs and explicit & implicit self-esteem in two consecutive studies conducted on undergraduate students. Two robust findings have shown the negative correlation between explicit self-esteem and self-downing, a particular type of irrational beliefs and the absences of a correlation between implicit self-esteem and any type of irrational beliefs. The findings of the study have also suggested that disputing irrational beliefs with therapeutic intervention may affect only explicit self-esteem while implicit cognitions or self-esteem remains unaffected.

Self-esteem is also closely related with emotional skills. For this, Loton (2007) conducted a study to identify and investigate the potential relationships between problematic electronic game play and a range of emotional skills and self-esteem along with social functioning in an adult sample. In his study he also found the relationship

## ***EMOTIONAL COMPETENCE AND SELF-ESTEEM***

between self-esteem and emotional skills and results showed that there is significant positive relationship between both of them, moreover they significant predict problematic play.

Few of other investigations are also carried out by Bijstra, Bosma, and Jackson (1994a) to see the relationship of self-esteem with emotional functioning and it was grouped into three categories: Sub-assertives (exemplified by a relatively high level of anxiety and a low level of performance in social situations), Assertives (low anxiety, high performance) and Indifferents (low anxiety, low performance). These three groups demonstrated discernible profiles in the psycho-social domains self-esteem, well-being and coping. The Sub-assertives had the most negative profile. The Assertives had a lower level of self-esteem and well-being, moreover, they made less use of adequate and more use of inadequate coping-strategies. The Indifferents reflected an intermediate profile. They had higher levels of self-esteem and well-being but they made less use of inadequate coping-strategies than the Sub-assertives and less use of adequate coping-strategies than the Assertives.

Furthermore, Bijstra et al. (1994a) had also shed light on the fact that adolescents' level of self-esteem, well-being and coping to be dependent on their level of social skills, it was seen that positive changes in social skills would lead to positive changes in all three variables. Thus, it was concluded that adolescents showed higher levels of self-esteem and well-being after training, and that they used less inadequate and more adequate coping-strategies.

Previous studies have established a very strong and consistent relationship between self-esteem, introversion, social anxiety and social skills. Results have also depicted that social skills have extensively vital marker of psychosocial health, such as the size of interpersonal and social support networks, self-esteem, personal adjustment and psychopathology (Riggio, Throckmorton, & DePaola, 1990; Riggio, Watring, & Throckmorton, 1993). Emotional competence is strongly associated to the affective component of self-awareness and one's sense of psychological well-being. It appeared that the understanding and regulation of emotions in the self-evaluative process may facilitate positive affect, which in turn is related to general and personal self-esteem (Coetzee, 2005).

### **Objectives**

To study the relationship between irrational beliefs and emotional skills; To determine the relationship between irrational beliefs and self-esteem; To study the inter-relationship of emotional skills and self-esteem.

**Hypotheses:** It is expected that irrational beliefs would be negatively correlated with emotional skills; It is expected that there would be negative correlation between irrational beliefs and self-esteem; It is expected that emotional skills would be positively correlated with self-esteem.

### **Research Design**

The sample comprised of 300 adolescents (150 males and 150 females) would be randomly selected from different schools. The age range of the participants was 15 to 18 years and the consent of the participants was taken. The tools comprised of Shortened General Attitude and Belief Scale (SGABS) (Lindner, Kirkby, Wertheim, & Birch, 1999): Measure of irrational beliefs; Social Skills Inventory (Riggio & Carney, 2003): Measure of emotional skills and Coopersmith Self-Esteem Inventory

## **EMOTIONAL COMPETENCE AND SELF-ESTEEM**

(Coopersmith, 2002). The aim of present research was to investigate the relationship of irrational beliefs with emotional skills and self-esteem. The appropriate conditions were created to conduct the study, where participants could fill the questionnaires without any distraction. Rapport was built with subjects and they were instructed as: "There are some statements in these questionnaires. You have to tick the best option according to you. There is no right and wrong answer, so please try to tick all the statements carefully and honestly. There is no time limit for the completion but try to complete them as soon as possible. Your responses would be kept confidential." After the completion, all participants were thanked for their participation in the study. The statistical analyses of the data involved correlation analysis.

### **Results**

In order to analyze the association of irrational beliefs with social-emotional skills and self-esteem, Pearson product moment correlation was computed. The results of the present study have been shown in Table 1.0, 1.1 and 1.2. Tables are the correlation matrix, depicting correlation between irrational beliefs, emotional skills and self-esteem and their dimensions. As depicted in table 1.0, there was significant negative correlation between irrational beliefs and emotional skills and correlation coefficient came out to be  $r = -0.213$ ,  $p < 0.01$ . It means if individual is high on irrational beliefs then he will be low on social skills and emotional skills. Next significant finding is that there is negative relationship between irrational beliefs and self-esteem. As shown in Table 1.1 correlation matrix, correlation coefficient between two was  $r = -0.19$ ,  $p < 0.01$  which reflected that person with high irrational belief were low on self-esteem. Inter-correlation between emotional skills and self-esteem was also investigated and positive correlation was found between them as hypothesized. The correlation between these two was  $r = 0.157$ ,  $p < 0.01$ . It means that people high on emotional skills were high on self-esteem.

**Table 1.0 - shows the correlation of irrational beliefs with emotional skills**

	SD	nAch	nApp	nComf	DF	OD	Tot_irr	EE	ES	EC	Total_E
SD	1	.436**	.417**	.395**	.416**	.337**	.678**	-.120*	-	-	<b>-.213**</b>
nAch		1	.359**	.537**	.576**	.395**	.729**	-	-.042	-	<b>-.167**</b>
nApp			1	.426**	.357**	.375**	.596**	-	-.094	-	<b>-.213**</b>
nCom				1	.458**	.420**	.735**	-.092	.028	-	<b>-.105</b>
DF					1	.444**	.710**	-	-.016	-	<b>-.173**</b>
OD						1	.630**	-	-.050	-	<b>-.167**</b>
Tot_irr							1	-	-.063	-	<b>-.213**</b>
EE								1	.210**	.287**	<b>.650**</b>
ES									1	.351**	<b>.770**</b>
EC										1	<b>.741**</b>
Tot_E											<b>1</b>

**EMOTIONAL COMPETENCE AND SELF-ESTEEM**

**Table 1.1 - shows the correlation of irrational beliefs with self-esteem**

	S D	nAc h	nAp p	nCo mf	DF	OD	Totl_i rr	Gen._S E	SC H	Soc	Hom e	Total_S E
SD	1	.436**	.417**	.395**	.416**	.337**	.678**	-.264**	-	-	-	-.282**
nAch		1	.359**	.537**	.576**	.395**	.729**	-.123*	.066	.015	.003	-.050
nApp			1	.426**	.357**	.375**	.596**	-.164**	-	-	-.091	-.162**
nCom				1	.458**	.420**	.735**	-.121*	.056	.002	-.012	-.061
DF					1	.444**	.710**	-.161**	.001	.021	-.033	-.104
OD						1	.630**	-.183**	-	-	-	-.241**
Totl_ir r							1	-.206**	-	-	-.108	-.191**
Gen._S E								1	.148*	.205**	.311*	.805**
SCH									1	.243**	.171*	.483**
Soc										1	.097	.514**
Home											1	.643**
Total SE												1

**Table 1.2 - Showed relationship between self-esteem and emotional skills**

	EE	ES	EC	Totl_E	Gen._SE	SCH	Soc	Home	Totl_SE
EE	1	.210**	.287**	.650**	-.010	.111	.063	.047	.056
ES		1	.351**	.770**	-.052	.148*	.219**	.125*	.119*
EC			1	.741**	.118*	-.037	.119*	.161**	.162**
Totl_E				1	.020	.108	.194**	.156**	.157**
Gen._SE					1	.148*	.205**	.311**	.805**
SCH						1	.243**	.171**	.483**
Soc							1	.097	.514**
Home								1	.643**
Totl.SE									1

\*\*p<.01, \*p<.05 Self-downing= SD, Need for achievement= nAch, Need for approval= nApp, Need for comfort= nComf, Demand for fairness= DF, Other downing= OD, Total irrationality= totlirr, Emotional expressivity= ES, Emotional sensitivity, Emotional control=EC, Total of emotional= Totl\_E, General self-esteem=Gen.SE, School= SCH, Social environment= Soc, Total self-esteem=Totl.SE

**Discussion:** The aim of the present study was to investigate the relationship of irrational beliefs with emotional skills and self-esteem. The study was designed to find out the relationship between these three variables. It was found in the present investigation that there was significant negative relationship between irrational beliefs and emotional skills at 0.01 level which showed that increased level of irrational beliefs would reflect the lower level of emotional skills. Because irrational beliefs would never allow a person to think rationally and objectively in that case a person cannot give his/her 100% contribution to social world and would not be able to deal with his emotions properly, it would lower his capacity to think for others and their

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emotions. Research studies have also conducted and they showed that irrational beliefs also lead to negative behavioral responses including aggression, withdrawal, impulsivity and lack of emotional and academic resilience (Bernard, 2006; Vernon, 2007). Vernon and Bernard (2006) has depicted that the emotional problems are the results of a dysfunctional way of thinking i.e., irrational beliefs and this faulty style of thinking interferes with goal setting and achievement, academic success and social interactions with classmates and teachers.

Similarly, it was found in the present study that there is significant negative relationship between irrational beliefs and self-esteem at 0.01 level. It represented that individuals with high irrational beliefs would be low on self-esteem, which means that irrational beliefs stopped a person to think rationally and he started making conclusions on basis of few negative events and evaluate himself with few negative events which forced him to make wrong inferences for his self-concept which shakes his self-esteem. Findings from others studies are also in line with the finding of the present study. A study conducted by Orth, Robins and Widaman (2012) has proposed that self-esteem was better replica as a cause of various life outcomes. Particularly self-esteem had a moderate effect on lifetime trajectories of affect, mood and depression, small to moderate effects on personal relationship and job satisfaction, and limited effects on health.

Lee (1998) has investigated relationship between individual's irrational beliefs and their levels of self-esteem and found that there was a negative relationship between the number of irrational beliefs and an individual's own level of self-esteem. The Daly and Burton (1983) and McLennan (1987) have examined joint relationship of depression and self-esteem to Ellis' irrational beliefs on an Australian sample (N=268) of students and nonstudents. The results of the study have shown that irrational beliefs to be jointly related to low self-esteem and depression.

Inter-correlation between emotional skills and self-esteem was also investigated in present study and significant positive relationship was found between both the variables at level of 0.01 as hypothesized. Individuals high on emotional skills are high on self-esteem because a person showed good social and emotional skills would have good reputation among others which is related with high self-concept and high self-esteem. Leary et al. (1995) conducted a study and showed that low self-esteem is one of the strongest predictors of emotional and behavioral problems. Individuals with low self-esteem likely to be more anxious, depressed, lonely, jealous, shy, low on social skills and generally unhappy as compared to individuals with high self-esteem. People with low self-esteem are also less assertive, less likely to enjoy close friendships and more likely to drop out of school. Research studies depicted strongly association of low self-esteem as a risk factor for psychological distress and behavioral problems, some studies recommended raising self-esteem as a mode to remediate a variety of social and emotional problems. Self-esteem involves internal feelings and self-consciousness that persuade emotionally healthy functioning in the social context (George, 2000).

### **Implications of the present study**

The findings of the present research have significant implications in the area of counseling of adolescent students. Individuals who are high on irrational beliefs cannot view the self, others and life objectively and many biases come across their

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mind and they become slave of many other psychological problems such as low self-esteem and low level of emotional skills. In order to make irrational beliefs into rational ones, enhancing their social-emotional skills and boosting self-esteem intervention can play an important role. Moreover, it is not difficult to recognize a student with high irrational beliefs and low on emotional skills and self-esteem in a class. The teachers can help the students conquer their fears and insecurities. This would help them in overcoming irrationality and improving their personal as well as academic life by using their caliber to the maximum extent.

Despite the important findings and implication of the present research, there are some **limitations** such as the study has not included any variables pertaining to social environment, no comparison between students from rural and urban background, self-reports may also have affected the study results because of social desirability and the researcher's presence and study could also be conducted in manner of opting for matched experimental and control groups. Further, there are some **suggestions** for future research, it can take into consideration the effect of family environment and parent-child relationship. Longitudinal, quantitative and qualitative studies could be conducted with similar sample and with similar variables for follow up.

To recapitulate, it can be said that irrational beliefs play an important role in establishing the image of self and image in social circle because people behave in the way they think. And if thinking is not rational then they can spoil their self-image and cannot cope with social stressors effectively. So it becomes important to find out the irrational beliefs to enhance self-esteem and emotional skills. If person has good self-concept then he can deal with social and emotional problems and become a better adjusted individual.

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PSYCHOSOCIAL CONSEQUENCES OF BEING STRANGERS IN A  
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**Abstract**

*Internal migration has resulted in a mass population of 453.6 million according to 2011 as per the Census of India. Migrants are not only imperative but also but also invisible key actors of socially dynamic, culturally innovative and economically affluent societies. This paper aims to provide an overview of existing challenges associated with internal migration, specifically the psychosocial consequences of emigrants and their left behind families. Review of literature suggests that migration is linked up with a high risk for poor mental health because of alterations in the pattern and content of, exposure to new physical, psychosocial, social interactions/ social support and economic/ employment environments, acculturation demands, housing problems, crime and discrimination. This paper also highlights certain suggestions as a holistic approach to meet the multiple challenges faced by emigrants. There is a high need to have in-depth understanding of the problems and pattern of mental health problems by formulating more effective intervention strategies such as pyramid intervention model in preventing the distress and disorders, moreover, developing the healthy psycho-social well-being of the migrants.*

**Keywords:** Migration, mental health, psychosocial, wellbeing.

Migration, whether it is Immigration or Emigration, has become an unprecedented phenomenon in the modern world and an integral part of life in many societies. Migration intensity is expected to increase in the future in result of economic depletion, political instability and change in the global environment (Deshingkar & Sandi, 2012). The regression of human populations within nations, especially progressing countries along with rural-to-urban migration, is far greater and far less studied (Harpham & Blue, 1995). The psychological consequences of this type of migration may have prominent effects on not only nation economic development but also all attention to the importance of understanding the relationship in the above context.

The association with an increased risk of psychiatric disorder and/or distress including changes in the pattern and content of social interactions/social support, exposure to new physical, psychosocial and economic/employment environments, acculturation demands, housing problems, crime and discrimination, migration brings exposure to these experiences (Bengi-Arsian, Verhulst, & Crijnen, 2002; Ben-Sira, 1997; Bhugra 2004; Coutinho et al., 1996). It is perceived through previous researches that monetary remittances have become the most crucial channel of the emigration effects. Thing that has been largely ignored in this aspect is the crucial psychosocial dynamics which is not directly attributed to the economic transfers (McKenzie, 2005). According to past research, movement of urbanization increases exposure to life events including separation from close knit, employment hardships, financial insecurities, housing problems, poverty, violence and also deplorable environmental conditions (Byrne, Henderson, Duncan-Jones, Adcock, Scott, & Steele, 1979; Harpham, 1994; Parry, 1995; Potts, 2000). Harpham and Blue (1995) have categorized these consequences of urbanization into long-term difficulties and problems, life

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events, and decreased social support. Migration does modify and effect social ties, expose migrants to new experiences and may include the necessity to deal with new cultural and linguistic contexts, thus could be a high risk factor for many mental health disorders and problems. Thus a comprehensive understanding of the complex processes and consequences linking migration and health is crucial. This paper focuses upon the possible linkages between the processes of migration and health: 1) The multidimensional concerns of migrants and of those left behind, and 2) Certain intervention strategies to handle these issues.

### **Psychosocial Concerns for Migrants**

#### *Psychological*

**Stressful work conditions:** Migration may result into stress, in susceptible individuals which result into psychological morbidity (both physical and psychological deterioration as a result of mental or psychological condition). Theoretically this leads to a proportionate increase in common mental disorders as well.

**Anxiety and depression-** The disconnection from family and social networks is particularly challenging for vast number of temporary rural–urban migrants which is termed as 'isolation.' Migrants' greater likelihood of risky sexual behavior is the consequence which creates a sort of behavioral control vacuum that migrants feel free from family monitoring and less constrained by social norms.

**Grief & Stigma:** One of the hardest things for migrants who are new is to cope with the loss of family and friends. It results into an empty longing that is difficult to relieve and often leads to depression. In families, who are low on enthusiasm to move feel the most pain, and the sense of powerless, in many cultures this is a great deal of stigma attached to mental health problems. In some cultures, it is believed to mix with the spiritual beliefs and also a sign of evil in the sufferer.

#### *Social*

**Gender discrimination:** Number of studies has brought the detrimental side effects of discrimination on physical, social, cultural, and psychological well-being (e.g., depressive symptoms, posttraumatic stress, self-efficacy, self-esteem) among various immigrant and ethnic minority communities (Flores, et al., 2010; Tummala et al., 2012; Yoo & Lee, 2009). With due respect to gender difference and research with migrants and ethnic minority adolescents has indicated that females are more vulnerable to developing internalizing symptoms, such as fear, anxiety, depression, when compared with boys (Almgren, Magarati, & Mogford, 2009; Céspedes & Huey, 2008).

**Unhealthy lifestyle:** Migrants may come from different cultures with more protective health practices. As a result of adopting health practices of the place where the migrants have been to, their health may deteriorate. Not only urbanization but also migration to different countries and cultural contexts may lead to changes in life style, notably adopting more Western dietary habits and activity patterns. This can lead to an *increase number of health problems such as, high risk of obesity, diabetes and cardio vascular disease* (Ebrahim & Smeeth, 2005). Exposure to risks associated with movement of population raises migrants' vulnerability to psychosocial disorders, drug abuse, alcoholism, and violence.

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**Identity crisis:**The major concern issue is the stress of living in another culture. Moreover, different factors such as cultural identity, cultural diversity, self-efficacy, self-confidence, self-esteem, well-being, and patterns of attachment and prolonged periods of separation from one or both parents may play some vital role in the genesis of mental disorders.

**Social exclusion& social support:** Migrants are exposed to *discrimination, stigmatization and xenophobia(prejudice)*. The factors related often interact with social inequalities and can both result in and be a result of moving out of poverty, and a cause of social exclusion which has also been recognized as a social determinant of health (Wilkinson & Marmot, 2003). As a result of such cases, social support has a direct and influential positive impact on health.

**Acculturation, Language & Culture:**Migrants belonging to Cultural and linguistically diverse background must assimilate and adapt to their new surroundings, aesthetics, cultures and customs. Various factors have documented that acculturation to Western society is associated to an increase in blood pressure and also worse cardiovascular health. Social isolation and hyperstress can be the foremost consequence of language problems that can create barriers to social and professional integration, increase stress, and reduce self-confidence, well-being, and self-esteem.

### *Physical*

**Risk of violence:** Usually women migrants are prone to *therisk of sexual abuse and exploitation*which have a negative and bad impact on their mental state of health. As a result women domestic workers are vulnerable to sexual exploitation, abuseand violence, and may suffer from physical and mental health problems. Moreover, female domestic workers and trafficked persons who have experienced sexual abuse are frequently confronted with major obstacles related to their right to reproductive health (sexually transmitted diseases, including various infections such as, HIV/AIDS, unwanted pregnancies, unsafe abortions) (Duckett, 2001).

**Human rights violation-**Some human rights are being violated from time to time. Human rights violations against migrants, which include denial of access to fundamental rights such as the right to education or the right to health, are often closely linked to discriminatory laws and practice, and to deep-seated attitudes of discrimination, out group, and xenophobia against migrants.

**Psychosocialconcerns of people left behind**

### *Psychological*

**Loneliness and Isolation-** Due to loneliness, some spouses formed alliances at home that challenged social norms and practices. Due to migration family disintegrates and it leads to loneliness and vacuum not only for the family left behind but also for the migrants.

**Depression-**Older parents are affected the most as their children get separated from them in their times of crucial years which leads to '*EMPTY NESTSYNDROME*' (termed by Dorothy Canfield,1914).According to research Canfield, 1914, it is actually men who are more likely to have a difficult time when their children leave home after years. Also, the poor old parents may also have to face financial crisis and economic falldown.

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Quality of life-All of this can take its toll on new migrants and their families quality of life and well-being, creating symptoms of depression, anxiety, stress, or other mental health issues. If one family member develops psychological problems, it usually can impact the whole family. Most vulnerable in this regard are children and aged family members.

### *Social*

Lack of communication with Home and Family-Temporary migration results in disruption of family and sexual life as well as loss of familiar living/social environments. The long absence from home, exposure to a totally different economic and social situation and cultural milieu, increased affluence of the migrating partner, and upward social mobility due to the migrant's improved social conditions had contributed to upsetting family relationships.

Drug addiction- In some instances, families left behind tended to depend almost entirely on money remitted by female migrants, while spouses often kept away from productive work or spent their earning on wasteful items such as alcohol (Hettige, 1990). A range of studies confirmed that money was not spent intelligently, was misused and wasted (Samarasinghe 1989, Weerapana, 1992). Households with a migrant mother had a higher proportion of fathers who smoked or drank or who were drug addicts (Save the children 2006).

### *Physical*

Marital Relationship-The studies also pointed out that the incidence of divorce among migrants was above average (Gunatilleke, 1986). Due to long separations, breakdowns in communication and trust, migrant worker's adultery and refusal by the migrant worker to be confined to a housewife's role (Law & Society Trust, 2011).

Child Rearing- In some homes where the father had played a strong role, interacting regularly with his children, encouraging their school activities, advising, guiding, playing, speaking with them warmly and teaching them, the absence of the father was felt much more keenly and children suffered emotional imbalance.

Suggested Measures: The complex challenge for mental health practitioners is providing quality and competent care to families and communities of migrants in a cross-cultural context. Working more efficiently with migrants from culturally and linguistically diverse backgrounds requires sensitivity, openness to learning, and a commitment to practicing cross-culturally responsive skills and competencies. The following table gives an overview of different therapies used with New Migrants

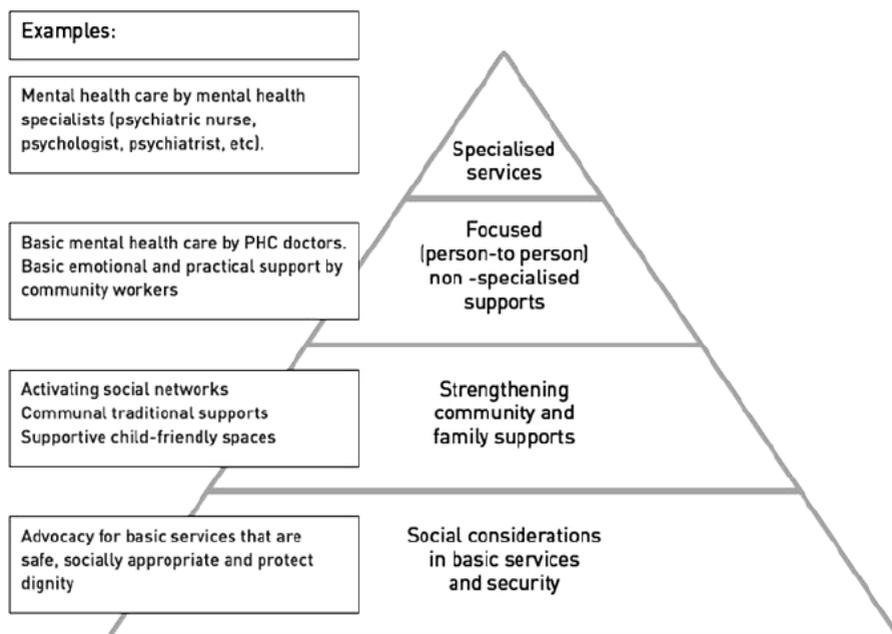
<b>Counseling/Therapy</b>	<b>For treatment of</b>
Acceptance and commitment therapy	Anxiety and depression
Bibliotherapy	Mild levels of depression and anxiety
Body therapies	Acute & chronic body pain, chronic fatigue, PTSD, anger, anxiety, depression, sleep problems such as insomnia, poor concentration
Cognitive behaviour therapy	PTSD, depression, anxiety, psychosis, sleep disorders, addiction, eating disorders, problem gambling
Counselling	Depression, anxiety, addiction, life issues, sleep disorders
Dialectical behaviour therapy	Self-harm behaviour, borderline personality disorder
Family therapy	Depression, anxiety, addiction, anorexia nervosa, marital problems, child management issues

## ***PSYCHOSOCIAL CONSEQUENCES***

Group therapy	PTSD, depression, anxiety, psychosis, sleep disorders
Interpersonal psychotherapy	Depression, anxiety, bulimia and a range of other diagnoses and life issues
Motivational interviewing	Addiction, problem gambling, also used in mental health
Multi systemic therapy	Problem behaviour in adolescence
Neurofeedback	Tinnitus, PTSD, brain injury, anxiety disorders, pain management, attention deficit hyperactivity disorder
Problem solving therapy	Depression, anxiety, addiction, life issues
Psychotherapy	Life issues, depression, anxiety, addiction, PTSD, abuse, eating disorders, problem gambling
Psychotherapy with children	Childhood emotional & behavioral disturbances, PTSD, grief
Eye movement desensitization and reprocessing	Depression, anxiety

Besides the above mentioned, the following research based PYRAMID INTERVENTION MODEL has been found to be successful in handling psychosocial issues of migrants.

### **Intervention pyramid**



***Figure: INTERVENTION PYRAMID FOR MENTAL HEALTH AND SOCIAL SUPPORT***

## Conclusion

Migration is a contemporary and complex phenomenon which describes the mental health effects of pre-migration trauma and post-resettlement stress among the migrants. Although it needs not to be stressful all the time but can be deleterious if stressors, including family separation, acculturation, job insecurity, restricted mobility marginalization, prejudice, are severe and prolonged. When there is no proper preparation and no social support, complexities, barriers and differences are involved which leads to definite distress; no matter whether it is international or internal migration. Most of the times, the insecurity feelings and non-availability of their own community members, the distress would turn into mental health consequences or other forms of health complications which may defer the growth and development at a new place. Providing the information about migration, and preparing the migrants with some useful stress management techniques, ensuring the essential health and public services and facilities will also help to inhibit expected psychological distress and upholding mental health and well-being among migrants. There is a wide scope for further research to investigate deeper understanding of the patterns of numerous mental health issues and formulating & preparing more persuasive programs in preventing the negative stress and enhancing the psycho-social well-being of the migrants.

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## KEY TO RETAINING EFFICIENT PERSONNEL: JOB SATISFACTION

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**Abstract**

*Job satisfaction refers to an employee's general attitude towards his or her job. It is the attitudinal factor which indicates that extent to which the employees like their jobs (Spector,1997). In today's contemporary era, due to up gradation of global or worldwide competition, efficient personnel's becomes challenge for the employers. Therefore, an employer's utmost accountability is to retention of their efficient and skilled personnel and this can be accomplished by making and keeping their efficient employees satisfied, motivated and committed towards their personal as well as organizational goals. Personnel's job satisfaction and employee retention are closely related to each other. Nowadays, job satisfaction and employee retention becomes cardinal consideration and concentration in the organizations because they both share a positive relation with job performance and organizational effectiveness. This paper focuses on determinants& significance of job satisfaction and employee retention& its significance. This paper also focuses on the relationship between job satisfaction and employee retention and strategic initiatives for enhancing job satisfaction and employee retention.*

**Keywords:** *Job satisfaction, employee retention, efficient personnel, global competition.*

Neoteric advances in the business settings have eventuated in intensified exposure of employees to adverse job characteristics and to substantial escalation in the unfavourable individual as well as organisational health resultants (Mansell et al., 2006). (Ugboro, 2006; Hirseh, 1987; Cameron et al., 1993) confirmed that because of the heightened competition, globalisation and insistence for efficiency, numerous organisations have adopted strategies of restructuring and downsizing. Further, this has developed the feeling of job security, low commitment, intent to quit among the employees and also increased turnover (Rousseau, 1996; Rosseau & Libuser, 1997; Cohen 1993; Hunt & Morgan, 1994). In today's era, voluntary turnover of high performing personnel is a serious peril to the effectiveness of the restructuring and the downsizing strategy and also to the organisational sustainability.

**Job Satisfaction:** The employees are the asset of the organisations. For the smooth functioning of the organisations, employers must be able to get and keep their employees properly motivated. Because higher motivation leads to higher job satisfaction which eventually helps in retention and reducing turnover in the organisations. Satisfying the employees is the hard task for organisations. It is very important and critical to identify and implementation of the job satisfying factors and eliminating job dissatisfying factors. Nullifying dissatisfying factors from the organisation will conclusively lead to the higher job satisfaction. Hence, providing higher level of job satisfaction is not an easy task for employers to do. Hoppock (1935), "considered job satisfaction a mixture of psychological, physiological and environmental situations which makes people happy with their job."

Factors Affecting Job Satisfaction

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Salary: Nguyen et al., (2003) concluded that pure salary has a direct effect on job satisfaction. Calisir et al., (2010) concluded in their research that salary, incentives, benefits, bonuses and special individual incentives are the main determinants of the job satisfaction.

Involvement and Participation in Decision Making: Lee and Ho (1989) found a positive correlation between participation in decision making process in employees and their job satisfaction. Alexander et al., (1998) conducted a study on nurses and found that participation in decision making contributes positively to job satisfaction.

Career Growth Opportunity: Dearth of favourable circumstances for advancement and promotion dissatisfies the efficient employees. Lussier (1996) concluded in his study that employees get dissatisfied and tend to leave the organisation because of no or less chances of growth and promotion.

Job Security: Job security refers to the once ability to stay and retain the current job. Job security brings motivation among the employees which eventually leads to the once satisfaction towards the job. Ashford et al., (1989) concluded in their study that job dissatisfaction is directly linked with job insecurity and job satisfaction is directly linked with job security.

Felicitous between Personal and Professional Life: Kossek (2005) found that employees expect from their employers to take care of the issues of work life conflict. Kinman & Jones (2001) concluded in his study that work life is a strongest determinant which contributes to job dissatisfaction.

Proper Leadership: Taylor (1998) affirmed that to a large extent, leadership between leader and his followers effects employ job satisfaction. Lok and Crawford (1999) conducted a research on leadership style, organisation commitment and job satisfaction of employees they found that he leadership style adopted by the supervisor has a significant influence on employee's organisational commitment and job satisfaction.

Reward and Recognition: According to Deeproose (1994), well planned rewards and recognition polices can lead to intensified productivity which also increases the level of participation of the employees in an organizational tasks and assignments in a more efficient and cordial way. Flynn (1998) found in his study that reward and recognition for the task performed helps in keeping and maintaining high energy among employees which further helps in generating association between performance and motivation of workers.

Harmonious Work Environment: Harmonious working environment composed of not only a cordial physical working environment where various facilities and equipment's provided at workplace to facilitate personnel's work efficiency and lessen dissatisfaction but it is also composed of cordial psychological environment for instance, cooperation and coordination between the employer and employee. Herzberg (1968) and Spector (2008) confirmed in their study that there is a positive correlation between cordial work environment and job satisfaction.

### **Significance of Job Satisfaction**

Job satisfaction is very significant and relevant for the overall growth and development. Job satisfaction brings motivation among employees and further it

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boost up the morale of personnel's which ultimately has a direct impact on the performance and productivity as well. Satisfied personnel's not only helps in intensifying the productivity and benefits but also bolster in constructing cordial working environment by strengthening good interpersonal relationships.

**Increases Organisational Commitment:** Wu and Norman (2006) conducted a study on nursing students of China and found that there is a positive correlation between job satisfaction and organisational commitment and particularly found that nursing students were more committed towards the health services.

**Increases Employee Involvement:** Velnampy (2008) noticed that job satisfaction has the positive effect on job performance which further enhances job involvement. It indicates that job satisfaction brings higher level of performance among employees.

**Meliorates Productivity:** Job satisfaction has a direct link with employee's productivity. Gupta and Joshi (2014) found that productivity is a good index of job satisfaction which indicates that the more the job satisfaction, the more the productivity.

**Reduces Turnover and Absenteeism:** Mobley et al., (1978) found a significant negative relationship between job satisfaction and intention to leave the organisation.

**Improves Employer and Employee Relationship:** Employer and employee relationship also improves by building good interpersonal relationship among them. By satisfied employee in this sense indicates that their employees are happy with the policies and facilities given by their employers which further leads to lack of grievances among the employees and develops a strong positive bond between the employers and employees.

### **Employee Retention**

The worldwide monetary ambiance is altering terribly. Advancements like worldwide integration, high-tech newness and burgeoning competition put pressure on enterprise and other organizations to italicize need to keep competitive edge, at least by preserving the skills of the workers. As a result of continual alterations and modern advancements in the fiscal environment, it becomes indispensable on the part of the firms to retain their workers through unceasing learning and development. Various researchers (Bernsen et al., 2009) affirmed that the management should give employees the assistance to grow and learn so that the employees maintain their capabilities as impressive and competent employees, continue verbosity and are retained by the firms. Nowadays, the demand of efficient employees is intensifying day by day with growing competition, as such it has become necessary for every organization to assure their employees stay with the organization and sustain a competitive edge. Employee retention is not only advantageous for the organization but also for the employees. Today with fat altering monetary circumstances, the needs and expectations of the employees are also changing very quickly. Today's employees are not the ones who lack favourable opportunities in hand. As soon as they are not satisfied with the present employer or organization, they prefer to switch over to the next organization. It is considered that organizations are responsible for retaining effective employees. Efficient employee retention is an organized attempt by the management to generate and promote an ambiance that boosts present employees to remain in the originations. Zineldin (2000), "Retention is an obligation to continue to do business or exchange with a particular company on an on-going basis."

### **Significance of Employee Retention**

It is very costly to lose even one effective employee and may adversely affect to endeavours of the organizations to accomplish their goals. With the growing economic, social and political ambience, the needs, desires and expectations of the individuals are also changing gradually. Organizations need to hold their employees because they are people who can make and break an organization as well. Employee retention is pivotal for the organizations. The significance of the employee retention is stated below.

**Reduces costs of Employee Turnover:** Ramlall (2003) and Hendricks (2006) found that the total cost of voluntary turnover varies between 150% to 250%. This costs comprises of recruitment and training costs, public perception of the company, employee morale and productivity and numerous other factors. It is very true to say that the more talent an individual delivers to the organization, the more expensive that individual is to reinstate. So, suitable retention initiatives are necessary to assist to reduce turnover cost and its other related costs.

**Employee retention intensifies and strengthens the customer base of the organization:** Reichheld (1996) affirmed that one prominent determinant in retaining customers is retaining effective employees. **Abrides the loss of the organizations:** When an effective employee leaves an organization, he takes away his knowledge & skills and also knowledge about the company, customers, present projects and past history. The organization provides resources like time and money to employee with the intention of future benefits. Employee retention plays a significant role in reducing direct and indirect cost linked with turnover and also abridges in reducing loss to the organization.

**Intensifies employee's organizational commitment:** Shapiro and Kessler (2000) and Rhodes and Eisenberger (2002) concluded that if employees think that their organizations respect and value their inputs, employees always show positive attitudes towards their organizations by increasing their commitment level, organizational citizenship behaviour and job performance.

**High performance:** Better performance leads to higher level of productivity. Tusi et al., (1995) and Rogers (2001) concluded the loyal employees always have the tendency to create high performance enterpriseresults like intensified sales, profitability, improved productivity and also enhanced employee retention.

**Builds employer-employee relationship:** If the employers implement retention policies for employees, then both employers and employees experience benefits. By doing this, they well able to retain effective employees and also builds cordial relationship between them.

**Better Organizational image:** Those organizations which offer better retention plans to their employees always have a good image in the market. Such firms are successful in fascinating better qualified and experienced individuals. Such organizations do not face employee turnover and absenteeism.

**Better Quality of work life:** Quality of work-life indicates favourableness or unfavourableness of the work ambience of and organization for its workers. Suitable and appropriate initiatives taken by the management put focuses on several determinants which eventually lead to better quality of work life.

### **Relationship Between Job Satisfaction and Employee Retention**

Various affirmative results of job satisfaction have been noticed which ultimately leads to employee's intent to stay in the organizations. A large number of studies (Light,2004; Clark,2001; Kristensen et al.,2004; Bockerman& Iimakkunnas,2004; Shields & Price,2002 and Lum et al., 1998) affirmed that there is a positive correlation between employee satisfaction and intent to remain with the organization. Quantifiable and positive associations have been entrenched between job satisfaction and organizational effectiveness, better individual performance and customer satisfaction (Ostroff,1992; Koys,2001; Sousa-Poza & Sousa-Poza,2000; Brown & Lam,2008 and Fosam et al.,1998).Thakur (2014) has examined the relationship between employee engagement and job satisfaction. The results of the study revealed that there is positive correlation between employee engagement and job satisfaction.Gupta (2013) studied employee retention in Tourism Industry. He concluded that employee retention can be used as a tool to lower down the attrition rate.Also concludes that Tourism industry lacks of workforce due to less salary packages. Singh and Jain (2013) found that happy employees are very prominent for the organization in the market and also job satisfaction is very important determinant in retaining the effective employees.

### **Strategic initiatives proposed for enhancing both job satisfaction and employee retention include the following:**

**Stress Management:**Numerous researchers (Firth et al., 2004) found that work overload is biggest determinant responsible for lower satisfaction and intent to quit. A leader should understand the profile and qualities of each and every employee before allocating duties to them. Elangovan (2001) found strong correlation between stress and job satisfaction. Role ambiguity and role conflict are found to negatively related to job satisfaction.

**Career Development plans:** Nowadays, the demands and expectations of employees have undergone a sea change. Only money is no more seems to be foremost motivator. Rather, before applying for a job individuals enquire regarding career success rate in that particular organization. To maintain employee retention, organizations should prefer to adopt career development plans along with the needs of the employees (Wwtprasis,2006).

**Employee empowerment and innovation:** Several researchers (Voisard, 2008 ;Dewettinck et al., 2003) found that there is a positive relationship between employee empowerment practices and job satisfaction. With the collective bargaining, continuous improvements of team performances and suggestions schemes, employees can be empowered.

**Pay for Performance:** Nowadays, to a great extent, performance based pay systems are becoming very important. Griffeth et al., (2002) found that when high performers experience inequity based on remuneration or rewards, they look for other jobs.

**Promotion and Training opportunities:** Verbosity of expertise is considered as one of the major reason for employee turnover, so indicating the essentiality for training, re-training and multi-training.

Perceived supervisor support: It is often said “people leave managers and not the companies”. Congenial leader-follower relationship positively contributed in job satisfaction and employee retention. Ismail et al., (2010) found participative and consultative leadership styles have been found to be positively linked with organizational commitment and job satisfaction.

Reward and recognition: Cunningham et al.,(1996) found rewards play a significant role in job satisfaction and employee retention. Higher the rewards and recognition, higher the job satisfaction and higher the employee retention.

Work-Life Balance: Organizations need to value and respect employee’s personal desires to have more time off to continue their personal interests. Landauer (1997) confirmed that executing work-family policies helps to ease family needs which lead to decrease in employee absenteeism and turnover. Baltes (1999) concluded that initiatives may also include flexible timings, job sharing, work from home, shorter work weeks, telecommuting and on-site child carecentres.

### Conclusion

This paper provides the importance of job satisfaction and employee retention, and the important factors of job satisfaction. This paper also provides various noteworthy strategies for the enhancing job satisfaction and employee retention. It has been noticed if supervisors and management do not pay serious attention to aforementioned factors and on strategies it is likely to result in lower job satisfaction and job dissatisfaction and eventually leads to employee turnover. One of the greatest impacts on organizational productivity and organizational effectiveness is the job satisfaction of the employees. Job satisfaction is one of the important factor which plays a significant role in employee retention.

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**Abstract**

*Education helps the women not only in gaining knowledge but also enables her to earn a living. An educated woman plays an important role in a family, dealing with both health care and financial support to the family. Higher education helps women to have a better understanding of social and political processes beyond the home in far-reaching social structure and makes her a wise citizen with effective social and political action. Higher education helps women to be mentally and emotionally stronger and to face challenges and overcome obstacles in life and to be a complete woman. The participation of women in decision making is not merely a reflection of their constitutional and democratic political right but will also contribute to the development of women as well as of the society. Decision-making attests to the empowerment of the various actors involved. At present, far too few women possess this attitude. Women teachers at all levels of education and in academic disciplines that are traditionally male dominated, such as the scientific and technological fields. Political empowerment of women, acquisition and equal exercise of power, and active and full participation, at higher level of decision making have come to figure not merely as the strategies for women's advancement, but also as the goals for women's movement, both nationally and internationally.*

**Keywords:** *Academics, Education, Empowerment, Movement, Women.*

Women have the potential to contribute to effective management of higher education, should be acknowledged and efforts should have to make to meet the challenges. In spite of an increase access and participation of women in all sectors of education, at the higher education level, even in the 21<sup>st</sup> century, India is one among the Commonwealth countries with the lowest percentage of women at senior managerial level. This may be due to the unwillingness on the part of management to appoint Manipuri women to these positions, or due to feeling of insecurity in women to handle these positions for which reason they might not come forward.

Developing women: The development of the human potential by creating a better quality of human beings has not been substantially emphasized. With respect to ill-treatment, socio-economic injustice, exploitation, physical and mental torture, it seems women development has remained more neglected which deprives the women of status of equality in the society.

Women's social status: When most of the women adopt a curious attitude, the following questions with respect to the women are thought provoking. Why do we need any change in our status? What is wrong with our position? Are we happy housewives with fixed views? E.g. traditionality, children. Are we not treated as good wives? With the fact that women is bestowed with the boon to continue progeny what is wrong with our role? How many women can spend their income as they please even against the will of their husband? Are there any specific and special problems for women? With these questions, it seems without philosophical or mental resolution among the women there cannot be any social change. There must be a fundamental change on a national level.

## *AWAKENING WOMEN*

Special reasons of slow progress: There are many reasons for the slowed progress of women viz. the conservatism of the parents because of the impact of the society, prejudice for the girls education, early marriages of the girls in the backward classes of society, poverty of the parents, asking the girls at home to help their mothers in their household jobs, economic backwardness of the rural community and lack of educational facilities for rural areas. There are many more reasons but unless these are solved, the progress of women in any society is difficult.

Women & academic leadership: Cultural norms continue to dictate that the role of women at the work place is seen as secondary to her role at home & as a nurturer and homemaker. The patriarchal attitudes to women in the institution of the family are carried over to other institutions of society, including education & employment. Women have the potential, to contribute to effective management of higher education, is an acknowledge fact and efforts must be made to meet this challenge.

Women participation in decision making: Decision-making attests to the empowerment of the various actors involved. At present, far too few women possess this attitude. Education facilitates empowerment, which is essential for the participation of women in all aspects of the development process. Higher education provides the expertise usually required for the key posts which shape policy in all fields. The barriers preventing the participation of women in the decision-making arena include Limited access to education, especially higher education; Discriminatory appointment & promotion practices; Dual stresses of family & professional roles; Family attitudes, career interruptions; Cultural stereotyping; Alienation from the male culture & continued resistance to women in management position; Inadequate policies & legislation to ensure the participation of women. Given these obstacles, solutions to remedy the exclusion of women lie in a reversal of these trends. Provision needs to be made for wider access to education, notably higher education.

Women's emancipation movement: The emancipation of women and their equality with men are impossible and must remain so if women are excluded from socially productive work and restricted to housework which is private. The emancipation of women becomes possible only when women are enabled to take part in production on a large, social scale, and when domestic duties require their attention only to a minor degree. It demands the clarity of role of women in the society which requires clarity with the idea if we want women as leaders, their equal representation, utilizing their unique perceptions & strengths, have a say in policy making, participate in decision making, consideration of the fact that women are equally gifted & talented, taking women as role models and to focus and resolve gender issues.

Women & Research: its high time, the society needs to think how to bring more women into leadership position? To add to the answer, it can be formulating women friendly policies; Changing policies that are restrictive for women; Publishing gender segregated data; Keeping a directory of qualified women; Have women on selection & promotion committees; Sensitize selection committee for non-sexist interviewing and Relaxation on age limit & length of experience.

## ***AWAKENING WOMEN***

Knowledge & skills for good governance: To add to the development of women; society need to provide the women with the opportunity in a way to prepare women with knowledge of Policies, structures, procedures; knowledge of environment within which the institution functions, management techniques, including methods of planning, financial management, staff development, etc.; add to the skills of Leadership, managing people, management techniques-strategic planning, team-building, resource management, time management, etc.; managing change and handling political interference.

Overcoming social barriers: For the development of women, women and society need to overcome the social barriers as such experience of being a woman, defining and redefining our roles as a daughter, daughter in law, working woman, a role model and a preserver, developer, enhancer and transmitter keeper of tradition

### **Conclusion**

Political empowerment of women, acquisition and equal exercise of power, and active and full participation, at higher level of decision making have come to figure not merely as the strategies for women's advancement, but also as the goals for women's movement, both nationally and internationally. Women are symbol of power also women are real architects of society. In the Sustainable Development Goals (SDGs) adopted in 2015, SDG4 - Every goal in the 2030 Agenda requires education to empower people with the skills, knowledge and values to live in dignity; Lifelong learning builds capacity to understand and promote sustainable development policies and practices; and Participation of women in decision making is not merely a reflection of their constitutional and democratic political right but will also contribute to the development of women as well as of the society.

Hierarchical power-based relations between men and women within family often has its impact on the women's education professional life and activities outside. Many women, for one reason or other voluntarily renounce various opportunities to move upwards or demonstrate their potentials. This is not merely because of her concern for children and fear of unsettlement or due to her diffidence about her own capacity, but also due to the patriarchal reason namely that any movement upwards which brings success in one's career, may upset the stability and equilibrium at home. It may make men and women equal, and at times the women the better one. This will destroy peace at home and upset the balance. Women have to empower themselves. Upliftment of women must be on a global scale. Every girl must be assured of free & compulsory education. Women empowerment is central to the achievement of the triple goals of equality development & social justice. Women movement must always start from grass root & emerge as mass movement. For this continued motivation, education and organization are important.

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YOGA: THE BRIDGE TO LINK TRADITIONAL CULTURE BETWEEN  
INDIA AND CHINA

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Abstract

*Yoga has become the most popular health trend in the world in recent years. In 2014, the United Nations General Assembly approved a resolution establishing 21 June as “International Day of Yoga” and even the logo was designed for the day. And then On December 1, 2016, yoga was listed by UNESCO as an intangible cultural heritage of humanity. In China, more and more people began to practice Yoga asana and Prāṇāyāma since 1980s, and then most of them began to explore the culture embodied by it. With the deeper understanding of the yoga, it is thought that yoga is a group of physical, mental, and spiritual practices or disciplines which originated in ancient India. What’s more, in yoga culture research, some of the similar wisdom can be found in Chinese wisdom. In this paper, a comparison study was made to explore the wisdom in both India and China to help people in either country to realize self-improvement, to control the desires and at last to make the self-realization.*

**Keywords:** yoga; link, culture comparison

Yoga has become the most popular health trend in the world in recent years. In the eyes of many people who pursue the quality of life, yoga is synonymous with elegance and fashion. Many Chinese Yoga lovers even go to India, where the ancient Yoga is from, for authentic yoga. Many people regard yoga as a form of exercise. Arriving at India, however, they found that yoga is more than just a form of exercise. Indians often say yoga is a union of mind and body. They also talk more about yoga and consciousness. So, what is Yoga? And for all practical purposes, Sāṅkhya and Yoga may be treated as the theoretical and the practical sides of the same system.<sup>1</sup> It is said Yoga was documented from the time of Ṛig-Veda. The Sanskrit word “Yoga” or Yog is derived from the root “yuj”, which means to yoke, harness or join together. Hence, Yoga is commonly translated to mean ‘union.’ According to Tang (1959, 2017), Yoga mentioned in Upanishad highlights the illumination of the mind and pursuing the wisdom of the true world. In the Kāthaka Upanishad and Bṛhadāraṇyaka implicitly recognizes the value of meditation on ‘self.’<sup>2</sup> There are explicit references to Yoga in late Upanishads such as Muṇḍaka, Maitrāyaṇa and the Śvetāśvatara. In Maitrāyaṇa Upanishads, the 6 limbs of Yoga were mentioned. Prāṇāyāma, Pratyāhāra, Dhyāna, Dhāraṇā, Tarka, Samādhi. And then in Patañjal’s Yogasūtras, the 8-limb Yoga appeared, Yama and Niyama were included, āsana also took the place of Tarka. That is why Tang (1959, 2017) stated that the 6-limb Yoga in Maitrāyaṇa Upanishads is more ancient than Yogasūtras. It is the forerunner.<sup>3</sup> From what are mentioned above, it is

<sup>1</sup>Chandradhar Sharma (first edition 1960, 14<sup>th</sup> reprinted, 2016), *A Critical Survey of Indian Philosophy*, Motilal Banarsidass Publishers Private Limited • Delhi. p.169.

<sup>2</sup>汤用彤著：《印度哲学史》，青山整理，新世界出版社，1959重印，2017年重新整理出版，第145-147页。

<sup>3</sup>汤用彤著：《印度哲学史》，青山整理，新世界出版社，1959重印，2017年重新整理出版，第146页。

found that Yoga is a kind of ancient philosophy which can be dated back to the time of Upaniṣadic doctrines and Vedic Age. It is also called Axial Period by Karl Jaspers. Since then, mankind has a universal framework for historical self-understanding. Even up until modern times, it has been the case that mankind has been living on the thinking and creation of the axial age, and every new leap has come back to this period and rekindled the flame. The revival of the potential of the Axial Period and the return to the axis, or renaissance, always provide spiritual impetus.<sup>4</sup> During these periods, Confucius, Lao Tzu, and all philosophical schools in China, including Zhuangzi, Liezi and all the schools of philosophy, have emerged. Since both the yoga philosophy and Chinese traditional philosophies can date back to the Axial Period, can we try to make comparative study between them? After all, according to M.R.Yardi(1979), the practice of Tao is the Chinese equivalent of Yoga after the attempt, which has been carried on over a decade, to understand Yoga as explained by Patanjali in the Yogasūtras which is the most ancient and authoritative text on the subject. <sup>5</sup>So, in the paper, the comparative study between Yoga philosophy and some of the wisdom of Chinese Philosophy will be made.

### Definitions of Yoga

First of all, what is the definition of Yoga? It is found that different people have different ideas towards Yoga for they have different educational and cultural background. According to Swami SatyanandaSaraswati, 'Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual.'<sup>6</sup> Moreover, Yoga is explained in many dimensions.

### Yoga Definitions in Different Dimensions

In The Etymological Way: The word *yoga* means 'unity' or 'oneness' and is derived from the Sanskrit word *yuj*, which means 'to join'. This unity or joining is described in spiritual terms as the union of the individual consciousness with the universal consciousness.<sup>7</sup> According to the Yoga Teacher's Manual for School Teachers given by Morarji Desai National Institute of Yoga, 'Yoga means 'union'. Etymologically it has been derived from Sanskrit root 'yuj' meaning to bind, join, attach and yoke. It signifies union with the Supreme Universal Spirit to obtain relief from pain and suffering. According to Panini's grammar, it has three meanings-union (yujiryoge), Samadhi(yujSamadhau) and constraint, restraint(yujস্যমানে).<sup>8</sup> When 'Jivatma' (individual self) is added to 'Paramatama'(supreme Self), the restless Jivatma finds eternal rest and supreme satisfaction.<sup>9</sup>

<sup>4</sup>雅斯贝斯：《历史的起源与目标》，华夏出版社1989年版，第14页。

<sup>5</sup>Yardi, M.R. (1979), *The Yoga of Patañjali, with an Introduction, Sanskrit Text the Yogasūtras, English Translation and Notes*, Bhandarkar, Pune. p.104& Preface.

<sup>6</sup>[印]斯瓦米·萨特亚南达·萨拉斯瓦提著：《体位法 调息法 契合法 收束法》，沙金张议丹译，东北大学出版社，2015年版，《瑜伽导论》第1页。

<sup>7</sup>[印]斯瓦米·萨特亚南达·萨拉斯瓦提著：《体位法调息法契合法收束法》，沙金张议丹译，东北大学出版社，2015年版，《瑜伽导论》第1页。

<sup>8</sup>Ishwar V. Bassavaraddi(2010, managing Editor), *Yoga Teacher's Manual of for School Teachers* given by Morarji Desai National Institute of Yoga, New Delhi.p.3

<sup>9</sup>Swami Sivananda, *Raja Yoga*, The Devine Life Society, P.O. Shivanandanagar-249 192. Tehri-Garhwal, Uttarakhand, Himalayas, India.p.29.

## In the Meaning of Yoga

In Patanjali Yoga Sūtras, Yoga is defined as ‘yogashChittavrittinirodhah’, which means complete control of mental modifications, in which ‘Chitta’ denotes the mind in totality as being composed of manas(mind), buddhi(intellect) and ahamkara ( ego or I-maker), ‘Vritti’ means thought impulses, ‘Nirodhah denotes ‘cessation’<sup>10</sup>; Yoga is also a kind of practice and a discipline. It is a connection with the eternal consciousness, which is the part that is untouched by anything.<sup>11</sup>; Yoga means union or yoke. Yoga is a method by which the individual soul becomes united with the supreme soul, the Reality that underlies this universe. Yoga is also defined as an effort to separate the Reality from the apparent.<sup>12</sup>; Yoga is an “.....integration and harmony between thought, feeling and deed, or integration between head, heart and hand.” Through the practice of yoga, awareness develops of the interrelation between the emotional, mental and physical levels, and how a disturbance in any one of these affects the others. Gradually, this awareness leads to an understanding of the more subtle areas of existence.<sup>13</sup>; According to B.K.S Iyengar, Yoga is to unite body with the mind, and taking body and mind together, to bring it in par with the eternal, evergreen state of the Self.<sup>14</sup>

## The Explanation outside India

According to Professor Wang Zhicheng, who is famous for yoga translation, comments and publishing books on yoga, Yoga consists of four parts, the first, the message conveyed by yoga is eternal, and the message is also conveyed to the world; the second, Yoga provides a method to explore and solve the survival dilemma; the third, Yoga provides the methodologies and ways to solve the problems on three dimensions including physical, mind and soul; the last, Yoga provides a holistic strategies and ways to pursue the harmony of body, mind and soul, and finally to achieve the perfection of the life.<sup>15</sup>; Nowadays, according some researches in both historical and contemporary contexts the word yoga can have a range of meanings including ‘Skill in work, desireless action, acquisition of true knowledge, indifference to pleasure and pain, addition (in arithmetic), and conjunction (in astronomy)’ (Banerji 1995)<sup>16</sup> And then Suzanne (2009) expressed that modern transnational yoga consists of a vast range of embodied practices and a diversity of ideas about the meaning of these practices, just like the diverse uses for its linguistic signifier.<sup>17</sup> In 2008, Elizabeth De Michelis has set out a helpful typology which draws attention to what are sometimes vastly different manifestations of phenomena described ‘yoga’. She has outlined five ideal-typical descriptions of Modern Yoga: (1) Early modern

<sup>10</sup> Vinay Kant Jha (Edited in 2015) *Patanjali Yoga Sutras, Sanskrit Text with Transliteration, Translation & Commentary. Commentary by Swami Vivekananda, Solar Books, 2015. P.13.*

<sup>11</sup> 参看视频: Yoga, Aligning to the Source, by PSBT, www.indiadiplomacy.in; www.psbtt.org.

<sup>12</sup> Swami Sivananda (1937, first Edition, 2013, the sixth Edition), *Raja Yoga, The Devine Life Society, P.O. Shivanandanagar-249 192. Tehri-Garhwal, Uttarakhand, Himalayas, India. p.23.*

<sup>13</sup> [印]斯瓦米·萨特亚南达·萨斯瓦提著:《体位法调息法契合法收束法》,沙金张议丹译,东北大学出版社,2015年版,《瑜伽导论》第2页。

<sup>14</sup> 参看视频: Yoga, Aligning to the Source, by PSBT, www.indiadiplomacy.in; www.psbtt.org.

<sup>15</sup> 参见2015年11月王志成教授在云南民族大学中印瑜伽学院讲座内容。

<sup>16</sup> Banerji, S. C. (1995), *Studies in Origin and Development of Yoga.* Calcutta: Punthi Pustak. P.44.

<sup>17</sup> Newcombe, Suzanne, The Development of Modern Yoga: A Survey of the Field, *Religion Compass* 3/6(2009):986-1002, 10.1111/j.1749-8171.2009.00171.x

Psychosomatic yoga of Vivekanda(1863-1902), the book named Raja Yoga is the keystone (1896), which influenced the other ideal types; (2)Neo-Hindu yoga which incorporates nationalistic and religious ideals often with a physically based practice;(3) Postural yoga which puts an emphasis on the orthopraxy of postures(āsana) and may have little explicit ideological doctrine; (4) Meditational yoga which focuses on a specific set of meditations (usually a practice of dhāranā or concentration with an object) rather than postural practices. The meditation-focused groups are more likely to have explicit ideological content than the postural forms and may overlap significantly with (5) Denominational yoga which focuses more explicitly on doctrine, bhakti (a practice of devotion and service towards a manifestation of the divine). Denominational yoga groups often focus on a particular guru or avatār (an incarnation of a divine being in a human form). These ideal-typical distinctions can be helpful in understanding the variety of contemporary manifestations of ‘yoga’ with the caveat that those teaching and practising ‘yoga’ often embody elements of multiple types.<sup>18</sup>

And according to Yardi, there is a general impression that Yoga is not a philosophical system but only a practical method of meditation. This impression owes its origin to two factors, namely (i) that it has broadly the same cosmology as the Sāṅkhya and (ii) that Yoga as the method of meditation has been accepted by almost all schools of Hindu Philosophy. In fact, the commentators on the Yogasūtras acknowledge that it is a tract on the Sāṅkhya system. Thus Vyāsa states in the colophon at the end of each part of the Yogasūtras that his commentary pertains to Patañjali’s science of Yoga in the exposition of the Sāṅkhya.<sup>19</sup> Yoga in its practical aspect is defined by Patañjali as restraint suppression of the mind.<sup>20</sup> Vyāsa describes it as contemplation.<sup>21</sup> The term ‘Yoga’ here is derived from ‘yuj’ ‘to contemplate’ and means contemplation, and not ‘conjunction’ from the root ‘yujir’ ‘to yoke, to conjoin’, as in the Vedānta texts.<sup>22</sup> From what are mentioned above, there are a lot of explanations on Yoga. And from the origin, Yoga is close to contemplation. From this point, we can draw a conclusion that Yoga makes people contemplate on certain point, and then from this contemplation, people can understand, differentiate between real and unreal, and then have the self-realization. And finally, the person can achieve the independence finally.<sup>23</sup>

<sup>18</sup>De Michelis, E. (2008). Modern Yoga: History and Forms. In: M. Singleton and J. Byrne (eds.), *Yoga in the Modern World: Contemporary Perspectives*, pp. 17–35. London: Routledge, cited from Newcombe, Suzanne, The Development of Modern Yoga: A Survey of the Field, *Religion Compass* 3/6(2009):986-1002, 10.1111/j.1749-8171.2009.00171.x.

<sup>19</sup>Itiśrīpātañjalesāṅkhya-pravacaneyogaśāstreśrīmadvyāsabhāṣya, ye.Vyāsa’āBhāṣya on the Yogasūtras. 1.51 转引自: Yardi, M.R. (1979), *The Yoga of Patañjali, with an Introduction, Sanskrit Text the Yogasūtras, English Translation and Notes*, Bhandarkar, Pune. p.7.

<sup>20</sup>Yogasūtras of Patañjali.1.2 转引自: Yardi, M.R. (1979), *The Yoga of Patañjali, with an Introduction, Sanskrit Text the Yogasūtras, English Translation and Notes*, Bhandarkar, Pune. p.10.

<sup>21</sup>Yogaśamādhiḥ, Vyāsa’āBhāṣya on the Yogasūtras.1.1.1. 转引自: Yardi, M.R. (1979), *The Yoga of Patañjali, with an Introduction, Sanskrit Text the Yogasūtras, English Translation and Notes*, Bhandarkar, Pune. p.10.

<sup>22</sup>Tattvavaiśāradī of Vācaspati Miśra.1.1.1. 转引自: Yardi, M.R. (1979), *The Yoga of Patañjali, with an Introduction, Sanskrit Text the Yogasūtras, English Translation and Notes*, Bhandarkar, Pune. p.10.

<sup>23</sup>参见: Vinay Kant Jha (Edited in 2015) *Patañjali Yoga Sutras, Sanskrit Text with Transliteration, Translation & Commentary*. Commentary by Swami Vivekananda, Solar Books. P.111.

### **The Definition given by UNESCO**

On Eleventh session of Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage held from Nov.28-Dec.2 2016, Yoga was nominated for inscription on the Representative List of the Intangible Cultural Heritage of Humanity for ‘The philosophy behind the ancient practice of yoga has influenced various aspects of how society functions in India, whether it be in relation to areas such as health and medicine or education and the arts. Based on unifying the mind with the body and soul to allow for greater mental, spiritual and physical wellbeing, the values of yoga form a major part of the community’s ethos. Yoga consists of a series of poses, meditation, controlled breathing, word chanting and other techniques designed to help individuals build self-realization, ease any suffering they may be experiencing and allow for a state of liberation. It is practiced by the young and old without discriminating against gender, class or religion and has also become popular in other parts of the world...Yoga is deeply embedded in Indian culture, history and society and considered a symbol of Indian cultural identity. Its bearers comprise a wide spectrum of individuals, general public groups, members of communities, educational institutions and any others interested without any restrictions of gender, age, nationality, class or religious dispositions.’<sup>24</sup> In fact, on December 11 in 2014, the United Nations General Assembly declared June 21 as the International Day of Yoga. The declaration came after the call for the adoption of 21 June as International Day of Yoga (IDY) by Indian Prime Minister, Narendra Modi during his address to UN General Assembly on September 27, 2014 wherein he stated: ‘Yoga is an invaluable gift of India’s ancient tradition. It embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature.’ According to the Resolution adopted by the General Assembly on 11 December 2014, it is said, ‘Noting the importance of individuals and populations making healthier choices and following lifestyle patterns that foster good health; Underscoring the fact that global health is a long-term development objective that requires closer international cooperation through the exchange of best practices aimed at building better individual lifestyles devoid of excesses of all kinds; Recognizing that yoga provides a holistic approach to health and well-being; Recognizing also that wider dissemination of information about the benefits of practicing yoga would be beneficial for the health of the world population,’<sup>25</sup> So, Yoga is not only an exercise on the physical body. As Sam Kutesa, the chairman of General Assembly, emphasized that for centuries, people from all kinds of fields are practicing Yoga for they found that yoga can unite body and mind. Yoga can help them to realize the harmony between thoughts and action.<sup>26</sup> There is also a logo for IDY. And the explanation given by UNESCO is that ‘Folding of both hands in the logo symbolizes Yoga, the union, which reflects the union of

<sup>24</sup> 《瑜伽被列入：人类非物质文化遗产，可喜可贺》，摘自搜狐新闻，[http://www.sohu.com/a/120645789\\_482902](http://www.sohu.com/a/120645789_482902). CONVENTION FOR THE SAFEGUARDING OF THE INTANGIBLE CULTURAL HERITAGE; INTERGOVERNMENTAL COMMITTEE FOR THE SAFEGUARDING OF THE INTANGIBLE CULTURAL HERITAGE; Eleventh session, Addis Ababa, Ethiopia, 28 November to 2 December 2016. DECISIONS, <https://ich.unesco.org/en/11com>.

<sup>25</sup> United Nations Official Document [https://www.un.org/en/ga/search/view\\_doc.asp?symbol=A/RES/69/131](https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/69/131)

<sup>26</sup> 国际瑜伽日：见联合国教科文组织网站，<http://www.un.org/zh/events/yogaday/background.shtml>

individual Consciousness with that of universal Consciousness, a perfect harmony between mind & body, man & nature; a holistic approach to health & wellbeing. The brown leaves in the logo symbolize the Earth element; the green leaves symbolize the Nature; blue symbolizes the Water element, brightness symbolizes the Fire element and the Sun symbolizes the source of energy and inspiration. Finally, the logo reflects harmony and peace for humanity, which is the essence of Yoga.<sup>27</sup>

### **Yoga as the Bridge to Link Traditional Culture between India and China**

To be honest, Chinese know about Yoga from Yoga postures. With the further insight of the study of Yoga, it is found that it is a broad system. Yoga postures are only a little part of the system. Gudrun Bühnemann had attempted to trace the history of the postural practice, in his book which had been published, he reproduced illustrations of yoga āsana from extant illustrated manuscripts, the earliest dating from 1734.<sup>28</sup> From the definitions and what have been mentioned, yoga should be regarded as a holistic philosophical system. In this system, the wisdom how to be a human being is expressed, the ethics of to do and not to do, the exercises to keep body health, how to extend the breath for the importance to the body, how to concentrate the mind; how to purify the mind, how to get the true knowledge, how to contemplate the value of the nature and the body, how to achieve the independence. In all, yoga is a way to think about the relationship between the human and the nature, the human and the society, the self-development. So in this way, it is a philosophy to know about oneself, to know about the surroundings, to know about how to live in the surrounding with meaningful. It is a kind of wisdom from the Indian sages and it is passed on from generation to generation. In this way, we can find the similar wisdom in Chinese traditional wisdom. In the following, some of the concise and explicit comparison is made in the following.

### **The Link between Yama & Niyama of Eight-fold Path of the Patanjali Yoga of India and “《礼记》记录的传统”(the Traditional Regulations in Li of China)**

In Eight-fold Path of the Patanjali Yoga of India, the first part is ‘yama’, which contains ‘Non-injury, Truth, Abstention from Stealing, Continence and Abstention from avariciousness’; the second part is ‘niyama’, which includes ‘Cleanliness, Contentment, Austerity, Study of the Scriptures and Chanting of the Mantras’ and Devotion to God. In a brief way, Yama expresses what an Indian can’t do to others; On the contrary, Niyama means how an Indian should behave oneself. These are the traditional disciplines for each person. The interesting thing is that some of the traditional disciplines for each person can also be found in Chinese tradition. What is more, there are some masterpieces related to these tradition, such as Zhou Li, Yi Li and Li Ji. What is Li? According to Confucianism philosophy, Li is the use of of Taoism in human society. So Li is made for the harmony with the original surroundings, the Taoism. In this way, the foundation of metaphysics can be achieved.

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<sup>27</sup>国际瑜伽日相关背景材料：[http://idayofyoga.org/index.php?route=information/information&information\\_id=4](http://idayofyoga.org/index.php?route=information/information&information_id=4)

<sup>28</sup>Bühnemann, G. (2007a). The Identification of an Illustrated Hathayoga Manuscript and Its Significance for Traditions of 84 Asanas in Yoga. In: Asian Medicine: Tradition and Modernity 3, pp. (1), pp. 156–176. (2007b). *Eighty-Four Asanas in Yoga: A Survey of Traditions* (With Illustrations). New Delhi: D.K. Printworld (P) Ltd.

<sup>29</sup>In the Chapter 9 of Li Ji, it is said that the foundation of Li should learn from the origin of Taoism; the running of the foundation performs in the way of phenomenon. In this way, there are many phenomena appeared. And they appear and disappear as the changes of the four seasons. During these changes, they will be suit for the nature of the procedures. So Li should be made according to the nature. People should learn to treat everything with respect and modesty.<sup>30</sup> Li is also the norm of all social activities. According to Confucianism philosophy, human should behave himself with ‘De’, which embodies the request of helping each other, having justice, obeying the etiquette, having the right behavior, having the loyalty and truth. In order to achieve ‘De’, a series of norms are made, which are also called Li. In the series of norms, how to take care of the parents, how to greet the elders and the honorary persons and other norms are made, which is summed up to be regulations. And it is also regarded as the most reasonable behaviors in the Community involvement. Li is also regarded as the suitable way of communicating between the people. A person should have Li to greet others when he greets the other.<sup>31</sup> In the beginning of the book called Li Ji, the minor norms have been mentioned, for they are the right behaviors for the small children to learn when they are ten. In the beginning, the respect to others, the strength of contemplation, and the assurance of the speech and the trust from others are mentioned. And then some of the abstinences are also mentioned, that is ‘Not to be arrogant; not to be controlled by the desire; not to be complacency on the self-realization; not to flow towards the worldly pleasures without control.’<sup>32</sup>As a form of interpersonal communication, Li also stipulates how to communicate each other and how to act in the norm of Li. In Qu Li of Li Ji, which means the minor norms, the following also mentioned, ‘a person should keep the alert state and keep one’s promise, which is the superior quality of a person. Only when one can achieve this both in speeches and practices, it is regarded as the practice of Li.’<sup>33</sup>The essence of Li is to respect others with a humble attitude. Even the humblest person has somebody to respect, so does the noble persons. In this way, the noble persons with Li won’t be proud and wasteful; the humble persons with Li won’t be mean and cowardly.<sup>34</sup>“The persons who are knowledgeable and have sharp memories have the humble attitude. And the persons who can keep such kinds of nature are considered Junzi<sup>35</sup>. They don’t ask for any praise from others, nor do they

<sup>29</sup>彭林：《中国古代礼仪文明》，中华书局，2013年版，第5页。

<sup>30</sup>

“所以礼的原理必本于天，由此礼之运行乃显示为现象界，从而列成无数的事物，其消长的作用有如四时之递嬗，但在其递嬗过程，如十二律之旋相为宫一样，每一阶段必契合于本阶段的分际。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第203页。

<sup>31</sup>彭林：《中国古代礼仪文明》，中华书局，2013年版，第6-8页。

<sup>32</sup>“一切行为准则皆以“敬”为基础，态度要端庄持重而若有所思的样子，说话亦要安详而确定。这样才能使人信服啊！不可起傲慢的念头，不可受欲望的支配。求善的志向不可自满；享乐的行为则要适可而止。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第1页。

<sup>33</sup>“自己日常警惕振作，实践自己说过的话，这可称为完美的品行。品行修整而言行一致，那就是礼的实践。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第2页。

<sup>34</sup>“礼的主要精神在于克制自己而尊重别人。虽在微贱之辈，犹有可尊重的人，更不消说富贵的人们了。唯是，富贵的人懂得爱好礼，才不至于骄傲而淫侈；同样的，贫贱的人懂得爱好礼，则其居心也不至于卑怯而无所措其手足。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第4页。

<sup>35</sup>君子：在古代原指政治权贵（如：天子、诸侯、卿大夫）的子弟，或指有官位者。孔子保留了这种用法，同时更强调以“君子”代指德行兼备的有德之人。因此之故，君子成为儒家的人格典型，指有理想、有原则、不

ask for the respect from others. However, they can keep a very close and long relationship with others.<sup>36</sup>.....In Qu Li, many daily behaviors and disciplines are introduced to the children to instruct them; In Yue Ji of Li Ji, it is said that the nature of the people can be modulated by Li.<sup>37</sup>In the chapter, it is also mentioned that ‘Yue means the harmony of the nature; Li performs the order of nature; Millions of objects are produced because of harmony; Millions of characters are performed because of the order. Yue is produced by nature; Li is produced for the need. So everything will be in disorder if Li surpasses the order. Yue will be violent if it beyond harmony. Only if the relationship between order and harmony is realized, Li and Yue can be created.’<sup>38</sup>Yue is used to modulate the spirit; Li is used to modulate the appearance. If one wants to modulate the appearance, one should restrain oneself; if one wants to modulate the spirit, one should develop one’s character.<sup>39</sup> To sum up, the emphasis on the respect to others and restraining of oneself are found in Li Ji. In Xueji of Li Ji, It is said that the bowlder can be the jade without grinding. A person cannot be a knowledgeable person without study. So, if the ancient emperor wanted to establish a strong country with capable people, education is the most important way. So, the study should be considered seriously from the beginning.<sup>40</sup>From it, we can see how important education is. In Xue Ji of Li Ji, the effects, the methods, the goals and the importance of teaching are mentioned in order to raise a goal for the beginners. Moreover, in the chapter, the goal should be achieved in the 9 years are explained, ‘one can read the article in the meaning group to judge his ideal for the first year; one can concentrate on his career and have a harmonious relationship with others in the third year; one can study broadly and respect his teachers and parents in the fifth year; one can have some of the comments on the classics and the friends who he chose in the seventh year; one can master all kind of knowledge and grasp the rules. He can make the difference between real and unreal. Moreover, he can also follow what the teachers told him in the ninth year. In this way, the people get good education, they can also improve themselves. In this way, the people nearby shows respect to them; the people faraway want to join them. This is the procedure of the high education.’<sup>41</sup> In this way, people can have some foundation for the promising

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断进德修业、追求至圣境界的人。引自：傅佩荣：《傅佩荣译解论语》，东方出版社，2012年版，第2页。

<sup>36</sup> “见闻广博而记忆力强，且能谦让自处，这样修身践言，力行不懈，便可称为君子了。君子不讨别人无边的喜欢，亦不要别人无边的爱戴，这样，才能保持持久的交情。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第18页。

<sup>37</sup> “以礼来调节人们的性情。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第328页。

<sup>38</sup> “乐是表现自然的和谐；礼是表现自然的秩序。因其和谐故能化生万物；因有秩序故能显出万品。乐本于人声之自然而起，礼则因后天的需要而作。所以，如果礼逾越秩序则紊乱，乐逾越和谐则暴慢。认清这先天后天的关系，然后能创制礼乐。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第330页。

<sup>39</sup> “乐是调理精神的，礼是调理外貌的。调理外貌要以克制自己尊重别人为原则；调理精神则以充分发挥性情为原则。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第347页。

<sup>40</sup> “玉的质地虽然美好，但不加磨琢，就不会成为器皿；人虽为万物之灵，若不学习，亦不会明白道理。所以古代王者建设国家，治理人民，以教育为最先的任务。《尚书·克命》篇说：从始至终，要经常想着学习。就是这个意思。”引自：王梦鸥译注：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第316-317页。

<sup>41</sup> “入学一年考经文的句读，辨别志向所趋；三年考察学生是否专心事业，乐合群众；五年考察学生是否广博学习，亲敬师长；七年考察学生在学术上的见解，及对朋友的选择，这时候叫做小成

development in Da Xue.

From what we have mentioned, some of the disciplines in the Indian tradition and Chinese tradition are found to be similar. That is to say, the Chinese tradition is being reflected during the studying of Yoga. In the study of Yoga culture, more people realized why Yoga is regarded as a living style. At the same time, people also came to know why Indian civilization and Chinese Civilization can be passed down one generation to another. That is because the people of the two countries can guide their people with different language on how to be a valuable person, how to behave in the right way. Moreover, one should have a harmonious relationship with the nature. One should think about the sustainable development in getting on with others.

### **The Link between Asanas and “五禽戏”(Hua Tuo's Wu Qin Xi)<sup>42</sup>**

Āsana is the third part of Eight-fold Path of the Patanjali Yoga, which is from the imitation from the creatures in the world and named according to the creature. These were created by the rishes, who are said to be the prophet seer in ancient Indian. After they watched the world carefully for a long time, they found the secret of the creatures, especially the animals. The animals have their wisdom to live in harmony with their environment and with their own bodies. They understood, through experience, the effects of a particular posture and how the hormonal secretions could be stimulated and controlled by it. Through imitating animal postures, the rishes found they could maintain health and meet the challenges of nature for themselves.<sup>43</sup> It is so surprising that it is not a unique instance, but has its counterpart. In China, A famous traditional Chinese doctor Hua Tuo, who was born in about 145AD, created Wu Qin Xi based on the Er Qin Xi<sup>44</sup> created by Zhuangzi. The name and functions of Wu Qin Xi can be found in Hua Tuo Biography of the Collected Biographies on Mystic Techniques in History of the Later Han Dynasty.<sup>45</sup> The first exercise of Wu Qin Xi is to imitate the action of tiger when the tiger are fluttering its forelimbs; the second exercise is to imitate the action of deer when it is stretching and turning around its head and neck; the third exercise is to imitate the action of bear when it is lying down and then stand up; the fourth exercise is to imitate the action of ape when it is jumping high with the toes; the fifth exercise is to imitate the action of the bird when it is stretch its wings to fly high in the sky. Hua Tuo is considered as one of the creators of Chinese ancient medical gymnastics. He is not good at curing the diseases, but also encouraging people to keep health with the exercises. He also advocated that the importance of prevention of the illness is much important to the rehabilitation.<sup>46</sup> In the two wisdoms, both people from the two countries learned how to keep health from the animals and realized the importance of prevention through stretching and

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；九年而知识畅达，能触类旁通，临事而不惑，不违背师训，这就叫做大成。这时，才能够化育人民，改变风俗，附近的人都心悦诚服，远方的人都来归附，这是大学教育的步骤。”引自：王梦鸥注译：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第316-317页。

<sup>42</sup>It can be translated in Five Mimic-animal Boxing, which is now on the list of national intangible cultural heritage in China.

<sup>43</sup>[印]斯瓦米·萨特亚南达·萨斯瓦提著：《体位法调息法契合法收束法》，沙金张议丹译，东北大学出版社，2015年版，《瑜伽导论》第3-4页。

<sup>44</sup>It can be translated in Two Mimic-animal Boxing.

<sup>45</sup>《后汉书·方术列传·华佗传》

<sup>46</sup>华佗\_360百科 <https://baike.so.com/doc/3329333-3506346.html>.

subtle strength.

### **The Link between Prāṇāyāma and “六字诀”(Six-character Formula)**

Prāṇāyāma means the controlling of the vital forces of the body. Prana is not breath. It is the sum-total of the cosmic energy. It is the energy that is in each body, and its most apparent manifestation is the motion of the lungs. This motion is caused by Prana drawing in the breath, and is what one seeks to control in Prāṇāyāma. One begins by controlling the breath, as the easiest way of getting control of the Prana. The three sorts of motion of this Prāṇāyāma are, one by which we draw the breath in, another by which we throw it out, and the third action is when the breath is held in the lungs, or stopped from entering the lungs.<sup>47</sup> According to Swami SatyanandaSaraswati, there are four important aspects of breathing which are utilized. These are inhalation (Pooraka), exhalation (Rechaka), internal breath retention (Antarkumbhaka) and external breath retention (Bahir kumbhaka). The most important part of Prāṇāyāma is actually kumbhaka or breath retention. However, in order to perform breath retention successfully, there must be a gradual development of control over the function of respiration. Therefore, in the Prāṇāyāma practices more emphasis is given to inhalation and exhalation at the beginning, in order to strengthen the lungs and balance the nervous and pranic system in preparation for the practice of breath retention. These initial practices influence the flow of prana in the nadis, purifying, regulating and activating them, thereby inducing physical and mental stability.<sup>48</sup> Six-character Formula is the instruction to breathe during the exercise to keep health. It is a kind of traditional way of breathing exercise which was passed down from ancient time. The benefits of the exercise are that the organizational function can be strengthened if one can continue practicing; The potential of internal organs can be stimulated and modulated to prevent the illness. The exercise can prevent premature aging as people grow older. A lot of comments can be found in the classic texts. Such as the comments in Lu Shi Chun Qiu written in around 239B.C. have been made to introduce that the breathing exercise has been used to cure some of the diseases. In Ke Yi of Zhaungzi written around 368 B.C. ~288B.C. , the exhalation of the foul air and inhalation of fresh air has been mentioned. In the following period, in the book named The Bibliography of Wang Bao written before 8 B.C. the benefits of the exhalation and inhalation is also mentioned. Before Sun Simiao, which was the famous doctor in Tang Dynasty(618-907 A.D.) mentioned the Six-character Formula in his classic book, a lot of classic books mentioned the benefits of exhalation and inhalation in curing diseases and keeping health. To sum up, we can find that both Chinese ancestors and Indian ancestors realized the importance of exhalation and inhalation. They made it as a tradition passed down from generation to generations.

### **The Link between Pratyāhāra & “去彼取此”(Controlling the Sensation)**

Pratyāhāra is the fifth part of 8-limb Yoga, which means the person who practiced

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<sup>47</sup>Vinay Kant Jha (Edited in 2015)*Patanjali's Yoga Sutra, 2.49- 2.51, commentary by Swami Vivekananda*, Solar Books, New Delhi, 2015. pp. 88-89.

<sup>48</sup>Swami SatyanandaSaraswati(first Edition 1969, fourth edition 2008), *Asana Prāṇāyāma Mudra Bandha*, Yoga Publications Trust, Munger, Bihar, India. p.370.

Yoga has succeeded in preventing the organs from taking the forms of external objects, and in making them remain one with the mind-stuff, then comes perfect control of the organs, and when the organs are perfectly under control, every muscle and nerve will be under control, because the organs are the centers of all the sensations, and of all actions. When the organs are controlled, the person who practices yoga can control all feeling and doing; the whole of the body will be under his control. So when the control of the organs is obtained, a person can feel how wonderful the body is.<sup>49</sup> Similarly, in Chapter 12 of TaoTe Ching, Lao-tzu also mentioned that one will feel dazzled if he/she sees the five colors together; One's hearing is impaired if he/she hear the five tunes together; One will discern his/her taste if he/she tastes five tastes together; If one is obsessed with hunting and other worldly entertainment, he/she will be mad in the inner; One cannot control him/herself if he/she became interested in rare treasures. So the saint should control the desire, and learned to get rid of the lure of material desire and to emphasis on the satisfaction of inner development.<sup>50</sup> Although India and China have different cultural backgrounds, they have different ultimate goals. In India, the goal of Pratyāhāra is to achieve concentration and then the people can have some links with God. And for Chinese, the goal of “去彼取此” is to establish the active human relationships and then achieve the goal to be a saint. However, the two cultures realized the importance of the control of sensation.

### **The Link between Dhāraṇā and Dhyāna & 与“慎思明辨”(Contemplation and Discrimination)**

After practicing the withdrawal of senses, one should address oneself to the internal aids of conscious contemplation. This is achieved in three successive steps, fixed attention (dhāraṇā), meditation (dhyāna) and contemplation (Samādhi). The first step is to fix the attention on a physical spot and try to focus the attention on a span containing this spot. The next stage is meditation in which there is an uninterrupted flow of cognitions of the same object as the unbroken stream of oil. It is characterized by an intense awareness of the object in which, although there is complete obliteration of other thoughts, the meditation still retains the consciousness of the distinction between the object cognized and the Self as the cogniser. It is a mental state in which all actions of sense-organs and the mind are restrained and concentrated towards the proper ascertainment from memory of the object under contemplation. The main aim of this conscious contemplation is to attain to a clearer cognition or knowledge of an object without error or misconception. And gradually, one can achieve the reflective stage and then to the super-reflective stage. When a person attains to the stage of super-reflective contemplation, his/her mental faculty gains in range and depth and develops a mastery which can extend without obstruction both ways to the minutest things as well as the greatest magnitudes. It then develops a contemplative insight, which is capable of penetrating to the truth without recourse to formal steps of deductive logic.<sup>51</sup> It is so amazing that in Xue Ji

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<sup>49</sup>Vinay Kant Jha (Edited in 2015), Patanjali's Yoga Sutra, 2.54, 2.55 commentary by Swami Vivekananda, Solar Books, New Delhi, 2015, p. 90.

<sup>50</sup>参见傅佩荣：《傅佩荣译解老子》，东方出版社2012年版，第27页。

<sup>51</sup>参看：Yardi, M.R. (1979), *The Yoga of Patañjali*, with an Introduction, Sanskrit Text the Yogasūtras, English

of Li Ji, similar views can be found. ‘When one knows that he/she is not knowledgeable during study, he/she can have the ability of self-reflection. When one knows that he/she doesn’t understand it completely during teaching others, he/she will encourage himself/herself. That is why there is a saying; there is mutual-improvement during teaching and learning.’<sup>52</sup> Here, the importance of contemplation and self-reflection is also mentioned. In Da Xue, there is some points to emphasize the importance on the value of contemplation on the understanding and achieving the goal with the sentence ‘One can only achieve the goal perfectly after the contemplation.’<sup>53</sup> Moreover, in one chapter of Mean, which is about what Lu Aigong is asking Confucius about politics, the following five views are mentioned, ‘One should learn something widely; One should question something intensively; One should contemplate thoroughly; One should discriminate clearly; One should practice accordingly.’ Furthermore, ‘If one starts leaning, he/she cannot stop unless he/she is skillful in everything; If one starts questioning something; he/she cannot stop unless he/she understands everything; If one starts contemplation; he/she cannot stop unless he/she masters the points completely; If one starts discriminating something, he/she cannot stop unless he/she discriminate everything; If one starts practicing, he/she cannot stop unless he/she are skillful with it.’<sup>54</sup> In this way, the importance of contemplation and discrimination is emphasized and encouraged to follow. At the same time, the perseverance is also highlighted.

### **The Link between Samādhi and “止于至善”(Perfection)**

Samādhi is a Sanskrit word, which means ‘when the object of meditation only shines forth in the mind as through devoid of the thought of even the self, is called the state of Samadhi. According to Swami Vivekananda, ‘the concentration is Samādhi, and that is Yoga proper; that is the principle them of this science, and it is the highest means. Samādhi is the means through which we can gain anything and everything, mental, moral or spiritual.’<sup>55</sup> In 1914, Sri Aurobindo raised the concept of The Synthesis of Yoga. In his opinion, ‘all life is either consciously or subconsciously a yoga. For by this term a methodized effort towards self-perfection by the expression of the secret potentialities latent in the being and- Highest condition of victory in that effort –a union of the human individual with the universal and transcendent Existence partially expressed in man and in the Cosmos.’<sup>56</sup> In Da Xue, From the first sentence of the classic book, we know that ‘The ultimate goal of university is that the glorious virtues of a person should be manifested; One can purify himself/herself every day; And then one cannot stop until one achieve the ultimate goal of the perfection. For if one knows his/her ultimate goal, he/she will have the right direction; With right direction, one can keep calm; With calmness, one can be satisfied with his surroundings; With the satisfaction, one can have considerate contemplation; With the contemplation, one

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Translation and Notes, Bhandarkar, Pune. pp.51-55.

<sup>52</sup>引自：王梦鸥注译：《礼记今注今译》，王云五主编，新世界出版社，2011年版，第317页。

<sup>53</sup>引自：傅佩荣：《傅佩荣译解大学中庸》，东方出版社，2012年版，第3页。

<sup>54</sup>引自：傅佩荣：《傅佩荣译解大学中庸》，东方出版社，2012年版，第77页。

<sup>55</sup>Vinay Kant Jha (Edited in 2015), *Patanjali's Yoga Sutra, commentary by Swami Vivekananda*, Solar Books, New Delhi, 2015. p. 113.

<sup>56</sup>K.C. Anand, (2011) *Introduction to Sri Aurobindo's 'The Synthesis of Yoga'*, Pradeep Narang for Sri Aurobindo Society, Puducherry-605 001.p.3

can realize the value of the goal; Every object has the vital part and minor part; Every event has the beginning and the end; If one can realize the reason and order, the goal of university can be realized.<sup>57</sup>

To sum up, there is a lot of similar wisdom can be found in both Indian Yoga culture and Chinese Traditional culture. After the comparative studies are made, one will find that only after the careful researches on the two cultures, the mutual understanding can be achieved. From the intercultural exchange, the mutual appreciation can be also achieved. And in such kind of comparison, the similar wisdom from the ancient time can also found in the way of life. In the comparison, the wisdom and culture of self-reflection and self-perfection can be found in both countries, although the people of the two countries have different goal. As expressed by Chen(2017), ‘Chinese culture emphasizes on the relationship between people and people, however the Indian culture emphasizes on the glorification of the God and super natural power.<sup>58</sup> However, in such kind of comparative study, Yoga can be found not only to link the people who practice Yoga, but to link the two great ancient civilizations. In such kind of link, people can also share the essence of each culture and learn from each other. In this way, the mutual respect, the harmony between countries can be achieved. In this way, Yoga became the bridge to link traditional culture between India and China.

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<sup>57</sup> “大学的理想，是要彰显一个人光明的德行；是要他亲近爱护百姓；是要他抵达完美的目标。知道目标何在，就会引发确定的志向；有了确定的志向，才可能保持平静的心情；保持平静的心情，才可能安于所处的环境；安于所处的环境，才可能进行周全的思虑；进行周全的思虑，才可能领悟目标的价值。外物的存在有根本部分，也有末节部分；事件的发生有结束阶段，也有开始阶段。知道这一切的先后次序，就接近大学的理想了。”引自：傅佩荣：《傅佩荣译解大学中庸》，东方出版社，2012年版，第3页。

<sup>58</sup>陈来：《古代宗教与伦理：儒家思想的根源》（增订本），北京大学出版社，2017年版，第9页。

EFFECT OF YOGA ON PSYCHOLOGICAL STATES, SLEEP AND EMOTIONAL INTELLIGENCE OF SCHOOL TEACHERS SUFFERING FROM TYPE 2 DIABETES MELLITUS: A PILOT STUDY

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**Abstract**

*Teaching is one of the stressful professions. The presence of diabetes contributes to the further increase in their stress levels, and this negatively affects their sleep quality and emotional states. Yoga is known to reduce stress and have a beneficial effect on healthy and diseased conditions. The objective of the study comprised to study the effect of yoga on stress, sleep quality, and emotional states of school teachers suffering from type 2 diabetes. The methodology involved 39 (all female) schoolteachers who have type 2 diabetes since minimum of  $3.4 \pm 2.2$  years, with age range 30 to 55 years ( $44 \pm 6.6$ ). Subjects with known cases of cardiac disease, psychiatric illness, recent surgery, pregnancy, were excluded from the study. All the subjects underwent one month of yoga intervention, one daily for five days a week. Fasting, postprandial blood glucose level, Perceived stress, emotional regulation and sleep quality were assessed before and at the end of the intervention. Data analysis was performed using SPSS version 10. Paired sample t test was used to find the pre-post differences in all variables. Paired sample t test showed significant reduction in perceived stress ( $p < 0.001$ , -37.89%), Fasting Blood Sugar ( $p < 0.001$ , -24.45%), Postprandial Blood Sugar ( $p < 0.001$ , -26.53%) along with a significant improvement in sleep quality ( $p < 0.001$ , -50.58%). Out of 39 subjects, 21 (54%) were having perceived stress score more than 13 suggesting above-average stress level. At the end of the study, this was reduced to 9 (23%). Also, it is observed that out of 39 subjects, 13 (33%) were having a perceived stress score of more than 20, suggesting a high-stress level. At the end of the study, this was reduced to 1 (2%). And we found out 39 subjects, 10 (26%) were having global PSQI score more than 10 indicating bad sleepers. At the end of the study, this was reduced to 2 (5%). Also found that out 39 subjects, 18 (46%) were having global PSQI scores more than 5 indicating poor sleepers. At the end of the study, this was reduced to 4 (10%). One month of yoga intervention may help in improving emotional regulation and sleep quality by reducing perceived stress level in female teachers suffering from type 2 diabetes. However, further randomized controlled studies need to be performed to confirm the findings of the present study.*

**Keywords:** Teacher, yoga, perceived stress, Emotional regulation, Diabetes mellitus, Sleep.

Happiness is the core of our human personality. All human endeavors are aimed at achieving this happiness. But in the present-day world, the materialistic pursuits and rat race, which every man has to inevitably undertake for tasting success, invariably undermines his/her chances of achieving happiness. It also adds lots of stress and anxiety, which gets piled up each and every day. This results in depression and an unhealthy physical constitution.

### **Stress and its impact on health**

Stress is a physiological response of the body to the stressor (The World Book Encyclopedia, 1992). When the individual is exposed to chronic stress it leads to increased sympathetic tone via up-regulation of HPA axis (Kudielka, Schommer, Hellhammer & Kirschbaum, 2004). Stress affects the health by increasing the heart rate, blood pressure, respiratory rate (Vrijkotte, Van Doornen & De Geus, 2000) increased basal muscle tone etc. (Rachev & Hayashi, 1999), it also increase the anxiety (Maes, Song, Lin, De Jongh, Van Gastel, Kenis & Smith, 1998), depression (Van Praag, 2004), restlessness and impulsivity. Stress is an independent cause of many physical and psychological health conditions such as back pain (Flor, Turk & Birbaumer, 1985), fibromyalgia (Van Houdenhove, & Egle, 2004), gastritis etc.

Chronic stress leads a variety of changes in physiology by causing dysregulation HPA axis (Traustadóttir, Bosch & Matt (2005). It elevates the inflammatory markers like IL6 (Yudkin, Kumari, Humphries, & Mohamed-Ali, 2000), oxidative stress, serum cortisol (Finlay & Mckee 1982), cytokines, (Evans, Goldfine, Maddux & Grodsky, 2002) etc.

Stress increases the progression of the chronic disease and symptoms associated with it. The presence of stress in chronic disease increases the chances of anxiety (Robinson, 1990), depression (Hammen, 2005) and negative emotions (Kuiper, Olinger, & Martin, 1988).

Stress is strongly associated with many chronic health conditions like hypertension (Kulkarni, O'Farrell, Erasi, & Kochar, 1998), asthma (Wright, Busse, & Lemanske, 2005), diabetes (Bradley, 1988), osteoarthritis (Zautra, & Smith, 2001), Parkinson's disease (Jenner, 2003) etc.

Stress triggers the acute episodes of many remitting and relapsing diseases like, asthma (Wright, Busse, & Lemanske, 2005), rheumatoid arthritis (Zautra, & Smith, 2001), multiple sclerosis (Ackerman, Heyman, Rabin, Anderson, Houck, Frank & Baum, 2002), migraine (Köhler & Haimerl, 1990) etc.

### **Emotional Intelligence and health**

Emotions help us to be aware of oneself, empathy, i.e. understanding the other person, self-motivation, staying composed in all situations, managing relationships, understanding the person's weakness and strength, orientation towards ethical standards and commitment to keep promises.

Emotional intelligence (EI) is an ability of an individual to be aware about one's own emotions, understand them and use them according to need (Caruso, Mager, & Salovey, 2004). Enhanced EI has a positive correlation with physical health and psychological well-being (Tsaousis, & Nikolaou, 2005). Chronic health conditions like cardiac disease, diabetes, hypertension, osteoarthritis are characterized by decreased EI.

### **Stress and EI**

EI has a negative correlation with stress. Reduced EI increases the susceptibility of an individual to stress and its effects on mind and body (van Heck, & den Oudsten, 2008). EI acts as preventive measure against bad behavior, anxiety, frustration, boredom, and depression (Kauts, & Kaur, 2015). Application of emotional intelligence can increase effectiveness and reduce occupational stress among teachers (Mehta, 2013).

## *YOGA AND DIABETES MELLITUS*

The stress related to work induce unpleasant and negative emotions resulting from some aspects of work which leads to loss of productivity and to mental health problems such as depression and anxiety (Leung, Chiang, Chui, Mak, & Wong, 2011). Stress induces burnout and it leads to emotional exhaustion. Emotional exhaustion is the tiredness a person experiences when they are drained and irritated. Emotional exhaustion is negatively related to self-confidence and emotional steadiness. To come out of high stress coping mechanisms are used like expressing anger, blaming others, avoiding the people, minimizing the work, not accepting new responsibilities. Continuing these states for a longer time will affect their mental health negatively (Fisher, 2011). Stress and emotions always co-exist and they are interrelated. Certain negative emotions like anger, envy, jealousy, anxiety, fright, guilt, shame and sadness can be called as stress emotions because they raise from stressful, harmful, threatening or challenging conditions (Lazarus, 1999)

### **Stress and Sleep**

Sleep plays an important role in physical health. Sleep is involved in the healing and repair of heart and blood vessels. Ongoing sleep deficiency is linked to an increased risk of heart disease, kidney disease, high blood pressure, diabetes, and stroke. Studies also show that sleep deficiency alters activity in some parts of the brain. If sleep deficiency occurs, one may have trouble in making decisions, solving problems, controlling emotions and behavior, and coping with change. Sleep deficiency also has been linked to depression, suicide, and risk-taking behavior.

Stress systems qualify us to face everyday challenges. Sleep loss affects the stress system. Changes in the actions of the stress system and insufficient sleep will give serious problems in health and well-being. Studies are showing sleep deficiency and restriction are linked with a mild increase in the activity of the major neuroendocrine stress system, i.e. autonomic sympathoadrenal system and the hypothalamus-pituitary-adrenal axis. In the long run the system's reactivity to other stresses and challenges will be getting affected. Insufficient sleep, by acting on stress systems, may sensitize individuals to stress-related disorders. Indeed, epidemiological studies suggest that sleep complaints and sleep restriction may be important risk factors for a variety of diseases that are often linked to stress, including cardiovascular diseases and mood disorders (Meerlo, Sgoifo, & Suchecki, 2008)

### **Diabetes Mellitus**

Diabetes is a medical condition characterized by chronic hyperglycemia. It is a major challenge for the health care system worldwide. Long-standing diabetes leads many comorbid conditions like, cardiovascular disease, cerebrovascular disease, chronic renal disease, depression and impaired cognitive functioning, which makes the patients' quality of life poor. Long-term impediments of diabetes include retinopathy with potential loss of vision; nephropathy leading to renal failure; peripheral neuropathy with risk of foot ulcers, amputations, and Charcot joints and autonomic neuropathy causing gastrointestinal, genitourinary, and cardiovascular symptoms and sexual problems. Patients with diabetes have an increased risk of atherosclerotic cardiovascular, peripheral arterial and cerebrovascular disease. Hypertension and abnormalities of lipoprotein metabolism are often found in people with diabetes. The

vast majority of cases of diabetes fall into two broad etiopathogenetic categories (American Diabetes Association).

Metabolic activity gets disturbed in the presence of Stress. The “counter-regulatory hormones are released in response to stress and that elevates blood glucose levels and decreased insulin action. In diabetes, because of a comparative or complete lack of insulin, stress-induced increases in blood glucose cannot be effectively metabolized. Thus, stress is a potential contributor to chronic hyperglycemia in diabetes(Surwit & Schneider, 1993)

### **Prevalence and Complications**

The fast increasing potential epidemic with more than 171 million individuals is diabetes. India now has the largest population of diabetics (62 million). This number is expected to increase in prevalence as 366 million worldwide by 2030. In 2000, India was in top with highest population having diabetes (37.1 million). Now in Chennai the percentage is more compared to other cities in India. Nearly 13.5 percent (Kaveeshwar & Cornwall, 2014)

### **Stress and diabetes**

Obesity contributes to the development of type 2 diabetes; obesity causes endoplasmic reticulum (ER) stress. This stress, in turn, leads to suppression of insulin receptor. These findings demonstrate that ER stress is a central feature of peripheral insulin resistance and type 2 diabetes(Ozcan et al., 2004)

A central organelle called the endoplasmic reticulum (ER) is assigned with lipid synthesis, protein folding and protein maturation. For recognition and targeting of unusual proteins for degradation, this has been gifted with a quality control system.A stress response (ER stress) is switched on when the capacity of this quality control system is exceeded. Prolonged stress leads to apoptosis and may be an important factor in the pathogenesis of many diseases. The unfolded protein response is evolved to maintain the balance between a load of newly produced proteins and the capacity of ER to help in the maturation. When unfolded protein response is not functioning according to requirement, it may lead to some diseases which involve tissues which is responsible for extracellular protein synthesis. Since pancreatic beta-cells depend on the efficient unfolding protein response to meet the demands for constant fluctuating levels of insulin synthesis. Recent studies have indicated that the importance of the UPR in diabetes is not restricted to the beta-cell, but also to the tissues of peripheral insulin resistance such as the liver and adipose tissue(Rajan, Srinivasan, Balasubramanyam, & Tatu, 2007)

The metabolic syndrome with normal glucose tolerance indicates a person at a very high risk of diabetes and cardiovascular disease. Diseases associated with excessive secretion of growth hormone, cortisol, glucagon, epinephrine can cause diabetes.Stress induces the release of some hormones, which can elevate blood glucose levels. Regulation of these stress hormones may be abnormal in diabetes. The studies show that in establishing diabetes, stress can stimulate hyperglycemia, hypoglycemia, or have no effect at all on glycemic state. Then, there is increasing indication of autonomic contributions to the pathophysiology of this condition(Surwit & Schneider, 1993)

### Sleep and Diabetes

Dwindled sleep duration or quality may increase diabetes risk. Sleep quality was evaluated using the Pittsburgh Sleep Quality Index (PSQI). Perceived sleep debt was calculated as the difference between preferred and actual weekday sleep duration. In patients without diabetic complications, glycemic control was associated with perceived sleep debt but not PSQI score. United with present proof linking sleep loss to increased diabetes risk, these data advocate that enhancing sleep duration and quality should be tested as an intervention to improve glucose control in patients with type 2 diabetes (Knutson, Ryden, Mander, & Van Cauter, 2006)

### School Teachers and stress

Teachers have an enviable task of molding society. Researches are showing that teachers are exposed to a number of causes of stress. The main sources of stress for teachers start from teaching students who lack motivation, retaining discipline in the classroom; exerting too much for that and job demands, undergoing lots of changes in the work environment, being weighed by others, challenging relationship with colleagues, management pressure. (Cameron & Andre, 2005). The teaching profession is an occupation at high risk for stress. Normally work pressure is creating stress in all fields. But particularly in this study we have seen teachers are having lots of stress than in other fields. Chronic work stress and overtiredness lead to health hazards in the long run. As the teaching profession is a potentially high stressful occupation, chronic work stress (effort-reward-imbalance) and exhaustion were assessed (Bellingrath, Weigl, & Kudielka, 2009)

### Yoga

It is an ancient science of mind-body practices helps in enhancement of relaxation at physical and mental level. It was discovered, developed and practice for higher purposes like self-realization. Yoga makes the mind and body work more efficiently. Previous scientific studies on yoga demonstrated its beneficial effects in many health-related conditions like asthma, osteoarthritis, cardiac disease, anxiety and depression (Swami Shankardevananda, 1977)

### Yoga and diabetes

Yoga is one of the most ancient body practices, discovered, developed and practiced by ancient Indian sages like *Patanjali*, *Yoga vashistha*, *swatmaram*, etc. for the higher goals like attaining the state of thoughtless mind (*Samasdhi*) or achieving the spiritual powers (*Sidhi*'s). Recent scientific investigations in yoga revealed many of its health-benefiting effects and made it one of the complimentary medicine (Mahdipour & Bahraei, 2005).

After understanding the perspectives of diabetes, it is clear that Diabetes is a lifestyle-related aging disease which is on the increase. The role of emotions and stresses on the mind in quickening the progression of this disease is proved. Our personality has five layers according to yogic concept as told in the *taitriyopanishad*. First, the Physical body is mentioned as *Annamayakosha*, which involves all the organs, tissues, cells, nerves. It functions as the food nourishes. Second is *Pranamayakosha*. *Prana* flows through the body and makes them function. The third is *Manomayakosha*. The mind-body is vital to activate the *prana*. The fourth is *Vijnanamaya kosha*. The intellect is

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essential to keep the mind in proper shape emotionally, psychologically. The fifth is the *Anandamaya kosha*, which is the strongest one, which is always responsible for the other four layers, functions. The bliss body of the personality. So, yoga helps to relax the mind, increase sleep quality, and bring balance in their emotions. In turn by doing yoga for all the layers of personality, we can manage the disease and live healthily (Srikanta, Nagarathna, Nagendra, 2003)

It is proved the useful role of yoga in the control of diabetes mellitus. Fasting and postprandial blood glucose levels came down significantly. It helps to maintain good glycaemic control for a long time. It is observed that the drug requirement is lowered and the occurrence of acute complications like infection and ketosis is reduced. There were important changes in the insulin kinetics and those of counter-regulatory hormones like cortisol. There was a reduction in free fatty acids. There was an increase in lean body mass and decrease in body fat percentage. The number of insulin receptors was also increased. There was an enhancement in insulin sensitivity and deterioration in insulin resistance. All these suggest that yogic practices have a role even in the prevention of diabetes. There is a beneficial effect on co-morbid conditions like hypertension and dyslipidemia (Sahay, 2007)

### **Methodology**

Having an aim of studying the effect of one-month yoga intervention on psychological states and blood glucose level in female school teachers suffering from type 2 diabetes mellitus, with objectives to study the changes in Fasting Blood Sugar Level (FBS), Post Prandial Blood Sugar Level (PPBS), Perceived Stress level (PSS), Sleep Quality (PSQI) and Emotional Intelligence (EIS), we started approaching schools in Chennai. In four schools, samples recruited for the study were 39 female teachers. Only the single group pre post-study was conducted. Teachers were asked to check their Fasting Blood Sugar (FBS) and Post Prandial Blood Sugar (PPBS) before and after yoga. Also, they were asked to fill the questionnaires for observing the changes in their stress, sleep quality, and emotional intelligence. The variables used are The Pittsburgh Sleep Quality Index, Cohen Perceived Stress Scale, and Emotional Intelligence Scale. Then started the one-month yoga intervention with one-hour duration five days a week in their school premises. In the intervention, we have given breathing exercises, loosening exercises, *Suryanamaskar*, *Yoga asanas* and *Pranayama* along with *Nadanusandana*, *Omkar* meditation.

Teachers were in the age group between 30 and 55. The teachers, who were willing to attend yoga classes, who were on regular anti-diabetic medication, were included in the study. The teachers who were not interested, the teachers having cardiovascular disease, having a history of recent surgery, having uncontrolled diabetes, who were on any anti-psychotic medication, who have previous exposure to any form of yoga in last one year were excluded. After a month of yoga intervention, they were asked to fill the questionnaires, check the fasting blood sugar and postprandial blood sugar.

The data of pre and post yoga were extracted and analyzed in SPSS softer version 16.

### **Results**

Paired sample t test showed significant reduction in perceived stress ( $p < 0.001$ , -37.89%), Fasting Blood Sugar ( $p < 0.001$ , -24.45%), Postprandial Blood Sugar ( $p <$

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0.001, -26.53%) along with a significant improvement in sleep quality ( $p < 0.001$ , -50.58%).

**Table 1: Pre-post changes in mean, SD, percentage of all the variables along with p values.**

Sl No	Variables	Pre(Mean±SD)	Post(Mean ± SD)	% Change	P <sup>a</sup> value
1	FBS	144.85±39.622	109.44±26.010	-24.45%	<.001**
2	PPBS	268.64±59.076	197.38±50.798	-26.53%	<001**
3	PSS	18.08±4.126	11.23±3.710	-37.89%	<001**
4	PSQI	7.79±3.246	3.85±3.246	-50.58%	<001**
5	EIS	122.31±13.117	126.08±15.744	3.08%	<.673

<sup>a</sup> Paired sample t test, FBS-Fasting Blood Sugar, PPBS-Post Prandial Blood Sugar, PSS-Perceived Stress Scale, PSQI-Pittsburgh Sleep Quality Index, EIS-Emotional Intelligence Scale

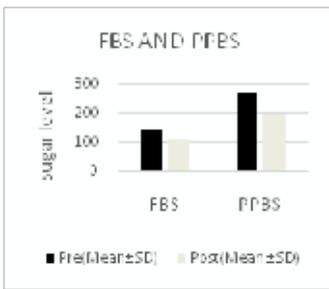


Figure 1: Graph showing pre-post changes in mean score of FBS& PPBS

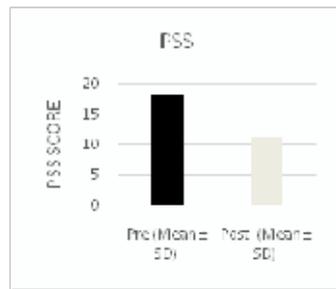


Figure 2: Graph showing pre-post changes in mean score of PSS

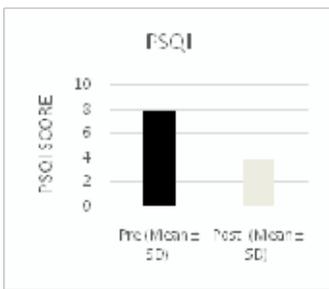


Figure 3: Graph showing pre-post changes in mean score of PSQI

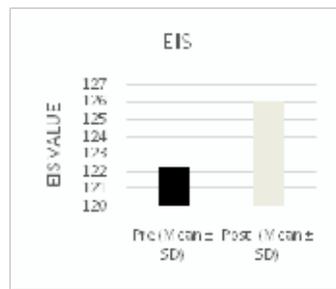


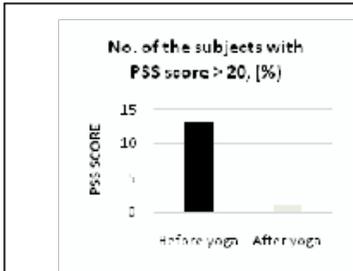
Figure 4: Graph showing pre-post changes in mean score of EIS

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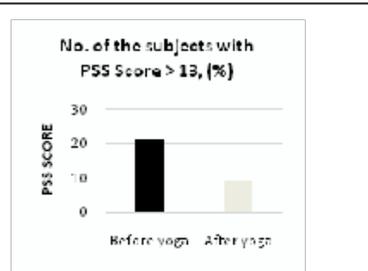
Out of 39 subjects, 21 (54%) were having perceived stress score more than 13 suggesting above average stress level. At the end of the study, this was reduced to 9 (23%). Also, it is observed that out of 39 subjects, 13 (33%) were having perceived stress score more than 20 suggesting a high stress level. At the end of the study, this was reduced to 1 (2%). And we found out 39 subjects, 10 (26%) were having global PSQI score more than 10 indicating bad sleepers. At the end of the study, this was reduced to 2(5%). Also found that out 39 subjects, 18 (46%) were having a global PSQI score more than 5 indicating poor sleepers. At the end of the study, this was reduced to 4 (10%).

**Table 2: showing percentage changes in variables who were having a different PSQI score and PSS score**

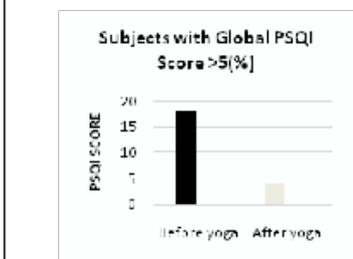
Variables	Before yoga	After yoga	% change
Number of the subjects with Global PSQI scores> 5, (%)	18, (46%)	4, (10%)	-78%
No. of the subjects Global PSQI score > 10, (%)	10, (26%)	2, (5%)	-80%
No. of the subjects with PSS Score > 13, (%)	21, (54%)	9, (23%)	-57%
No. of the subjects with PSS score > 20, (%)	13, (33%)	1, (2%)	-92%



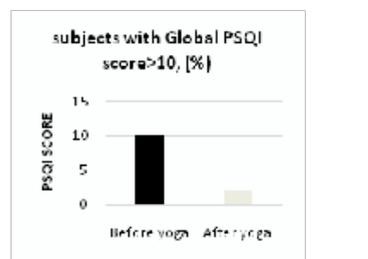
**Figure 5: Graph showing pre -post changes in mean score of PSS Score>20**



**Figure 6: Graph showing pre -post changes in mean score of PSS Score>13**



**Figure 7: Graph showing pre -post changes in mean score of PSQI Score>5**



**Figure 8: Graph showing pre -post changes in mean score of PSQI Score>10**

## **Discussion**

In this study study the efficacy of one-month yoga intervention on perceived stress, emotional intelligence and sleep quality of the teachers suffering from type 2 diabetes. At the end of the study, we observed significant reduction in stress ( $p < 0.001$ , -37.89%), Fasting Blood Sugar ( $p < 0.001$ ) and (-24.45%), Postprandial Blood Sugar ( $p < 0.001$ , 26.53%) along with a significant improvement in sleep quality ( $p < 0.001$ , -50.58%).

We also observed a significant reduction in the number of subjects having high-stress levels and sleep problem after one-month yoga intervention.

In an earlier study, in the preliminary report on role of yoga on oxidative stress in NIDDM, Subjects were given yoga training including *suryanamaskar*, yoga *asanas*. The *asanas* were done every day for 40 days. FBG, PPG, was estimated before and after 40 days of yoga *asanas* regimen. The age group is between 30 and 60. Significant reduction was seen in FBG from 220 mg/dl to 162 mg/dl, PPG from 311 mg/dl to 255 mg/dl. The decrease was statistically significant ( $p < 0.001$ ) for FBG and PPG (Singh et al., 2001).

In current study, the age group is between 30 and 55, and yoga intervention was for 30 days every day one hour practice. And we have observed reduction in FBS  $p < 0.001$  and PPBS  $p < 0.001$  along with changes in Perceived Stress changes  $p < 0.001$ , Sleep quality changes  $p < 0.001$ .

In an earlier study, The effects of a gentle yoga program on sleep, mood, and blood pressure in older women with restless legs syndrome (RLS): A preliminary randomized controlled trial, the yoga group demonstrated significantly more significant improvements than controls in multiple domains of sleep quality and mood, and significantly more substantial reductions in insomnia prevalence, anxiety, perceived stress, and blood pressure (all  $p \leq 0.05$ ). Their preliminary findings suggest yoga may offer an effective intervention for improving sleep, mood, perceived stress, and blood pressure in older women with RLS (Innes & Selfe, 2012)

In the current study, the psychological state, sleep, and emotional intelligence were observed combining with blood sugar level changes in female school teachers in the age group of 30 to 55. The results here show significant ( $p < 0.001$ ) in perceived stress, sleep, and fasting as well as PP blood sugar.

In earlier studies, it was observed that the practice of yoga leads to a reduction in stress hormone levels and an increase in neurotrophic factors. This may be a possible reason for the reduction of stress. Reduced stress levels, improve sleep quality, and thus, changes have come in blood sugar levels. Yoga intervention first brought breath control in them and had a perfect sleep. When their sleep quality is good, they are able to handle day to day tensions and stress very effectively. In turn, they could get confidence. They could get flexibility, which could increase their movements very relaxed in the direction of their work. They found themselves very active the whole day. Because of that, they could do more work without any tension. Some people started finding they are feeling very light as if their weight is reduced. *Omkar Dhyana* gave them a very good focus on the student's academics; they could show a positive attitude towards everything and everybody.

## Conclusion

One month of yoga intervention may help in improving emotional regulation and sleep quality by reducing the perceived stress level in female teachers suffering from type 2 diabetes. However, further randomized controlled studies need to be performed to confirm the findings of a present study.

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*B-SCHOOL PROVOKING NEW PRODUCT*  
**TEACHING SCIENCE FICTION WRITING IN A B-SCHOOL TO  
PROVOKE NEW PRODUCT OR SERVICE IDEAS**

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**Abstract**

*The article explores the possibility of using science fiction writing in a B-school, to provoke students to imagine the future, based on the kind of problems that may occur and how mankind would try and solve them. The students would be encouraged to extrapolate a solution partly based on current technology and partly logical progression of current technology that extends into the future, limited to the year 2050. They would use the art of storytelling to explore the benefits and the fallout of a new idea in society.*

**Keywords:** *Science Fiction Writing, Education, Creativity, Innovation, New Design, Management Education, Futurists, Ideation*

"The limits of the possible can only be defined by going beyond them into the impossible."

Arthur C. Clarke

If we taught management students to write science fiction, would we be able to train them to be innovative thinkers and develop exciting new ideas for the future? Can science fiction be used as a tool for ideation and innovation? This was the questions postulated before the start of a 3 credit course on Creativity and Imagination.

SciFi as a tool for innovation: Creativity and innovation are increasingly being included in the curriculum of management schools to inculcate the habit of innovative thinking for future managers. Design thinking, brain storming, pain storming, synectics and other such tools have been deployed successfully and taught extensively as techniques for idea generation. However, a tool that has immense potential and that has not been fully explored as a classroom subject, is science fiction. Science fiction writers have imagined and designed futures that are not only plausible, but inspired engineers and technologists to invent new products, and to imagine the consequences of their inventions on a future world. As far back as 1485, the polymath, Leonardo da Vinci imagined products and solutions that we use today. For this reason, science fiction writing, also called science fiction prototyping, is being increasingly used by companies like Intel and IBM productively. Our idea was to introduce Science Fiction into the MBA curriculum, combining imagination, provocation, storytelling and future projection as an idea generation technique.

Asking what If: Deep questions can be raised. Where will our next store of energy come from? How can we decongest Earth? Can we turn plastic into fuel? What happens if our water supply runs out? What kind of transport will we use to go from place to place? How will we communicate? What if our food supply dwindles? How will we evolve? What will we need? What will money look like? Can we extend our senses? Can cars fly? Can men fly? Can we talk to each other through thoughts? Can we grow new body parts? Can we live on an asteroid? Can we eliminate fire? Can we live undersea? Science Fiction starts with a fundamental question: What if?

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Science fiction writers ask these questions and imagine and create elaborate futures, where men can fly and plastic can be eaten by genetically modified organisms. A future where we conquer strange worlds and learn to breathe with fortified lungs that take in what the air offers and convert it to what the body needs. Science fiction writers have imagined space travel with ideas that NASA has adopted to travel as far as Jupiter and Saturn, and most recently past Pluto to the edge of our solar system, the Kuiper Belt. And science fiction writers have imagined cell phones in the 1960s that have become a ubiquitous part of our lives in the 2000s.

Students are expected to ask questions, try and devise solutions, using their imagination and storytelling skills.

Inspiration from SciFi: The greatest science fiction novels have inspired scientists, engineers and inventors with bold ideas that have changed the world. Arthur C. Clarke, Isaac Asimov, H.G. Wells, Mary Shelley and a host of others have inspired innovations and conversations in every field – from technology to ethics. NASA Associate Administrator Robert Lightfoot has said, “There’s an undeniable tie between NASA’s bold mission and Arthur C. Clarke’s audacious ideas. Clarke’s work and NASA’s accomplishments have run in parallel, from space stations to exploring other worlds. It’s our hope that, not too far in the future, our science and his fiction will intersect for the benefit of all humanity.” (Northon, 2016)

Of course, among the best known science fiction-inspired work is what NASA has done, drawing inspiration from Arthur C Clarke’s 2001: A Space Odyssey. Not long after his 1950 book *Interplanetary Flight*, NASA began its work to make such a technological, scientific and cultural feat a reality.

While space flight is too far-fetched for ordinary life, and lies in the realm of elite astrophysics and science, let’s think about what science fiction imagined and inspired in regular, pedestrian life on Earth. The cell phone, as essential to us today as food and water, was first imagined by Gene Rodenberry in *Star Trek*. On their missions where no man had gone before, the crew carried hand-held communicators that flipped open. The top section had a transceiver antenna and the bottom had user controls, a speaker and a microphone. The device was imagined, designed and built by Wah Chang, who also built many of the other props used in the series.(wikepeida, n.d.)

Captain Kirk’s communicator gave Martin Cooper a stunning idea – to develop a handheld mobile phone. Martin Cooper, known as the father of the cell phone, created the first personal cell phone while he was working at Motorola. His first call on the 28-oz. (800 g) cordless cell phone — dubbed “the brick” — was to his rival at Bell Labs Research. (Browning, 2010 )

“Between 1973, when we demonstrated that phone, and 1983, when the first commercial service started, we actually built five models. Each one was successively smaller and by 1983 we were down from one kg to 16 oz. The one I carry with me today weighs 3 oz.”, Martin Cooper has said of his *Star-Trek* inspired invention. (TIME, ND)

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Forty-five years later, the cell phone has become an extension of our hands. From the brick phones to the flip phones like Captain Kirk used on *The Enterprise*, to the slick versions we have today, it was all imagined by writers with imagination.

Gene Roddenberry's *Star Trek*, in fact, has been the motherlode of great ideas. Not only has it inspired scientists and engineers to choose careers, and name their discoveries after objects in *Star Trek*, but also inspired a slew of ideas and products for the future. Take, for instance, the Altair 8800, the first home computer. Ed Roberts, the inventor, named it after the Altair Solar System in a *Star Trek* episode. NASA's space programme boasts of unabashed "Trekkies", who have gone on to implement some of the ideas they saw and read about, growing up on a diet of science fiction. From Mark D. Rayman, Chief Propulsion Engineer at NASA's JPL, who was inspired to develop Ion Propulsion because of *Star Trek* to Professor John Adler who invented the "Cyberknife", a robotic device that uses lasers to deliver radiation directly to cancer tumours without cutting into the patient, the past is peppered with stories inspired by people who imagined the future. Many of today's non-invasive scanning and medical procedures can find their antecedents in the futuristic vision of *Star Trek* in the 1960s. (Gladstone, 2017)

*Star Trek*'s Tricorder – that nifty gadget that was a sensing, computing and recording device that could diagnose disease, scan the environment, analyse technical data and much more – has been replicated in bits and pieces, each aspect separated into an easy handheld device. The race to clone a medical transcoder, for example, has been on for years. MIT researchers worked on a handheld device that used a Nokia 770 as the gadget for display and user input. "As the name suggests, the inspiration for the Tricorder comes from the fictional device of the same name from the original *Star Trek* science fiction television series. The fictional version of the Tricorder was a self-contained device capable of sensing relevant information about whatever it was being pointed at (e.g., life signs 50 meters back, magnetic disturbance above, or plot thickener ahead). Our Tricorder device aims to achieve the same goals, but rather than being self-contained, our Tricorder pulls sensor data off a surrounding wireless sensor network." (Lifton, 2007)

Dr Andrew Conrad, head of Google X Life Sciences (now Verily, overseen by Alphabet), wants to build the Tricorder. "We use *Star Trek* as our guiding force around Google because there used to be a computer called Tricorder—you'd talk to it and it would answer any question. That's what we're really looking for at Google X," he says in an interview to Steven Levy at Backchannel. (Levy, 2014) Qualcomm and XPrize Foundation announced and awarded a 10-million-dollar prize for developing the Tricorder. (Qualcomm Tricorder XPRIZE, n.d.), "which will accurately diagnose 13 health conditions, capture 5 real-time health vital signs and provide a compelling consumer experience," according to their official website. 34 teams registered to contest and 7 finalists made the cut. Perhaps we will soon have our own Dr. McCoy practising *Star Trek* like diagnostics and treatments.

Michael Venables who writes about "disruptive ideas in science, technology and cultures", as the byline of his article in the *Forbes* magazine states, provides a list of inventions inspired by writers and film-makers imagining the future. The inventor of

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MP3, for instance, was inspired by Data (the only sentient android, playing music on his computer) to conceive of a digital music file. LCARS – The Library Computer Access and Retrieval System (the Enterprise’s library), was used by the United Federation of Planets on the Starfleet vessels and later morphed into the PADD (Personal Access Display Device) with touch screen capability used by various aliens in the 24<sup>th</sup> Century. What did they spawn? Apple’s iPad and iPad Mini. Siri and Google Assistant, such an integral part of our lives today, were prototyped on The Enterprise, where the crew often turned to the onboard computer for helping locate stranded colleagues and ships and for crucial status updates.

“Science fiction has always been the genesis of our greatest technological triumphs,” states Venables in his article. “The idea for land ironclads, first written about by H.G. Wells, was adapted by Winston Churchill into the first tank in military history. The idea of military aeroplanes was first written about by A.A. Milne, of Winnie the Pooh fame. The concept of atomic bombs is another idea that was first generated by H.G. Wells.” (Venables, 2013)

Jules Verne proposed the idea of light-propelled spaceships in his 1865 novel, *From the Earth to the Moon*. Today, technologists all over the world are actively working on solar sails. Science fiction does not necessarily predict the future, but inspires it. “The task of science fiction,” according to Eileen Gunn in an article in the online Smithsonian magazine, “is not to predict the future. Rather, it contemplates possible futures.” (Gunn, 2014). SciFi writers imagine incredible futures based on plausible technologies. Science fiction is not fantasy, but a logical extension of current technologies and worlds. It is based on the principles of life – physics, chemistry, biology, technology and human endeavour.

Jayant Narlikar, noted Indian Astrophysicist and writer of science fiction shares Hugo Gernsback’s definition of science fiction: “By ‘scientifiction’ I mean the Jules Verne, HG Wells and Edgar Allan Poe type of story—a charming romance intermingled with scientific fact and prophetic vision... Not only do these amazing tales make tremendously interesting reading—they are always instructive.” (Shenoy, 2016 )

SciFi Writing – Unfettered Imagination: Science fiction writers are not constrained by the possibilities of current technology, as scientists and engineers can be. Not knowing enough about what is available and possible with the current state of knowledge, gives them the freedom to paint on stark white walls. As a new study by the University of Toronto, Rotman School of Management revealed, structure can be a killer of creativity. Too much knowledge and immersion in a domain, blinds one to new insights into it. (University of Toronto, Rotman School of Management. "Too much structured knowledge hurts creativity, shows study." (University of Toronto, 2017). Writers of fiction on the other hand, are unfettered by rules of the industry. Their wild imagination can actually sow the seeds for disruptive innovations.

Science fiction is not really about solving today’s problems. As Claire Evans, the futures editor of *Vice’s* technology offshoot *Motherboard*, an online magazine and video channel that sets out to explore 'the intersection of technology, science and humans' says, science fiction is “just a method for discombobulating the reader just enough that it forces you to redefine what’s normal.” (Zukerman, 2014). In that sense it could

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be a viewport through which you examine the present. “Science fiction almost always incorporates criticism of today,” says James Bowers, a political scientist at the University of Illinois. “If, when you write about tomorrow, if your tomorrow seems a lot like today but a lot darker, it is in essence a criticism.”

Sci-fi imagines a way of life in the future based on current trends and projects problems that may crop up and solutions to problems that have not even been envisaged in the present. It’s a crystal ball that allows us to prototype a life without living through its travails. Writing a fictional account allows immense freedom in exploration. Renowned novelist and poet Ursula K. Le Guin. “The future is a safe, sterile laboratory for trying out ideas in,” she tells *The Smithsonian*, “a means of thinking about reality, a method.” Le Guin’s award-winning 1969 novel, *The Left Hand of Darkness*—set on a distant world populated by genetically modified hermaphrodites—is a thought experiment about how society would be different if it were genderless. (Gunn, 2014)

This brings us to another powerful wormhole that science fiction writing can let us slide into: the ability to visualise the social and ethical impact of ideas. While an idea solves a current problem, what of its negative impact? Like Mary Shelley’s *Frankenstein*, which is not only about the possibility of organ transplant and resurrecting life, but a social comment on what could go wrong and the horrors that irresponsible ideas could unleash. Sebastian Buckup, Head of Programming, Global Programming Group, Member of the Executive Committee, World Economic Forum, talks about two main ingredients in sci-fi stories: great science and a keen understanding of contemporary hopes and fears. (Buckup, 2016). Sci-fi writing is not only about exploring technological utopias and dystopias but also economic, financial, political and social scenarios. It helps us to test out ideas in a fictional landscape before they are launched. We can hide behind the fiction and preview the good, the bad and the ugly as our ideas and prototypes fit into an almost real world.

Increasingly, tech companies are not only using science fiction storytelling to imagine how their ideas and inventions will fit into the future, but they’re hiring science fiction writers to help them imagine new ideas and inventions. Writing in the *New Yorker*, Nick Romeo writes about Ari Popper who formed the company SciFutures, which specialises in writing customized stories for companies like Visa, Ford, Pepsi, Samsung, and *NATO*. Popper calls this work “corporate visioning.” (Romeo, 2017)

**Science Fiction Prototyping:** Businesses like SciFutures resonate with the idea of Science Fiction Prototyping, a term introduced by Brian David Johnson in 2010. Working as a Futurist for Intel, he conceived of a methodology that uses science fiction stories about possible futures. He has developed a five step methodology: (Johnson, 2011)

Pick Your Science and Build Your World; The Scientific Inflection Point; Ramifications of the Science on People; The Human Inflection Point; What Did We Learn?

Put simply, Science Fiction Prototyping needs a full-fledged world with characters and a plot where the science that is being tested, resides. It will visualise the ramifications of the science or idea, the good and bad effects that it will have on the people in that

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society. All problems that can arise from the science or idea will be envisioned and the conclusion will either fix the problem or kill the idea. It allows the writer to get back to the drawing board and tweak the idea or visualise its perils and eliminate it and start afresh. Using characters and a story makes the idea relatable and testable on fictional real people.

“I really like design fiction or prototyping fiction,” says novelist Cory Doctorow, whose clients have included Disney and Tesco. “There is nothing weird about a company doing this—commissioning a story about people using a technology to decide if the technology is worth following through on. It’s like an architect creating a virtual fly-through of a building.” Doctorow, who worked in the software industry, has seen both sides of the development process. “I’ve been in engineering discussions in which the argument turned on what it would be like to use the product, and fiction can be a way of getting at that experience.” (Johnson, 2011)

In 2012, Stephenson partnered with the Centre for Science and the Imagination (CSI) at Arizona State University to create Project Hieroglyph, a web-based project that provides, in its words, “a space for writers, scientists, artists and engineers to collaborate on creative, ambitious visions of our near future.” The first fruit will be an anthology, *Hieroglyph: Stories and Blueprints for a Better Future*, to be published this September by HarperCollins. It will include stories by both established and newer writers who have been encouraged to “step outside their comfort zone,” as Ed Finn, the director of CSI, puts it. The same goes for readers. Finn sees the core audience for Hieroglyph as people who have never thought about the issues these authors address. “I want them to place themselves in these futures,” he says. Neal Town Stephenson, American writer and game designer founded Project Hieroglyph, a platform for science fiction writers and scientists “to learn from, and influence, each other - and in turn, the future”.

(Siegelbaum, 2014). The stories told take on big, difficult problems: Stephenson’s story envisions the construction of a 15-mile-high steel tower reaching into the stratosphere that would cut down on the fuel needed to launch space vehicles; Madeline Ashby applies the mechanics of gaming to manage U.S. immigration; and Cory Doctorow’s story suggests using 3-D printing to build structures on the moon.

With imagination, science fiction allows us to play out our own lives in the future. In his book, *Futuring: The Exploration of the Future*, Edward Cornish talks about projecting current supertrends into the future, assuming that the supertrends will continue in the same path. He calls it “continuation scenario”, much like science fiction allows us to do. The flights of fancy here are rooted in logic and current trends. What science fiction allows us to do is imagine a future that could technologically and scientifically possible, using knowledge of physics, chemistry, biology and the way the Universe works.

So how does science fiction writing help a management student, who is neither an engineer nor a scientist, imagine the future. Science fiction writer Lee Konstantinou sees science fiction as a way to spur creative thinking (Siegelbaum, 2014). From new product designs to new ways of doing business, providing services, understanding

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possible new needs and trends, science fiction writing and prototyping can be a good tool in the arsenal of problem solving and creative thinking lessons in the classroom.

Futuring – Its Time is Now: By journeying on the supertrends that exist today, we can project forward in time. Edward Cornish has named six in his book *Futuring: The Exploration of the Future*, (Chapter 3, Six Supertrends shaping the future): Technological Progress, Economic Growth, Improving Health, Increasing Mobility, Environmental Decline, Increasing Deculturation (Loss of traditional culture). These trends probably encompass most of human needs and issues of growth and/or concern, today as well as in the future. As future managers, MBA students will need innovative solutions to address problems that they will encounter in these areas or even to think of entrepreneurial ideas that address these needs. According to Cornish, “By projecting our supertrends forward in time, we can create a new scenario of picture of what the world might be like at a specific time in the future, say, the year 2040. This scenario assumes that the supertrends will continue much as they are now and that there will be no big surprises to invalidate our expectations. It can be described as a “continuation scenario”. Imagining and prototyping these scenarios can not only help students to visualise what life could be in the future, but also what can be avoided to reverse a downward spiralling trend. (Cornish, 2005)

Science fiction is not a soothsayer’s crystal ball. As stated earlier, it is not so much about predicting the future, as inspiring a way of life. It is creating a map of the future that scientists and engineers, designers and thinkers, politicians and professionals can use to create new ideas and shape the world and society. No area is off-limits to science fiction – how will we work and live, where will we work and live, what will we eat and drink, how will we travel, will we commute, what diseases will we conquer, what new diseases will we encounter, how will we govern ourselves, how will we transact, how will we communicate. Somewhere between asking these questions and creating what-if scenarios lie great ideas and inspiring world-visions.

SciFi in the Classroom – a rough model: Combining imagination (the bedrock of great ideas), storytelling (learning to develop characters and plots), and science and logic (current technologies, current social, economic, political trends, etc), students can be taught to use science fiction writing and prototyping as a tool to ideate and then test their ideas in a world that’s not real but populated with real people.

Based on these fundamentals, a small module on Science Fiction Imagining and Writing was introduced in the Creativity and Innovation elective, culminating in a graded assignment. The module included a lecture on the concept of Futuring and science fiction writing, as well as reading science fiction short stories and analysis and class discussion of the same, covering the characters, world built, concept projected, technology used and protagonists and antagonists in the story, problems encountered and solutions imagined, as outlined in *Science Fiction prototyping* by Brian Johnson. The students then had to submit a science fiction short story using the techniques of prototyping learnt in class. The short story had a word limit – not more than 2000 words. A template was provided so they could follow a line of thought.

Sample Task Given: It is the year 2050.

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The Technology/service/product/area: Example: Sleep, Personal Transport, Financial Transactions/Money, Education, Working Spaces, Longevity, Diet, Personal Relationships, Entertainment, Human Habitation.

What's the Setting?; Main Story/Plot. What was the main problem?; Was there any secondary problem because of the main problem?; Main Characters Good/Evil; How does the new solution affect the lives of your characters?; What are the challenges that it creates (Fallout)?; Is there a solution?; How does the story get resolved?

The results were promising. Students managed to explore ideas freely. From artificial wombs to 3D organ printing, fashion to furniture, the quantity of ideas generated was significant. While some students managed to tell a story, a number of them could not take the idea forward. Only 1 student asked "What if" questions and developed a great story and a great idea (artificial wombs).

Management students, being mainly from engineering backgrounds, hold back on imagination, probably due to their grounding in hard sciences and are unable to imagine freely. Science Fiction writing, with its technical/scientific slant, can be combined with story-telling to help them think innovatively. Further research and a revision of the pedagogy is proposed to validate this.

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**BRAND IMPAIRMENT TESTING  
DISCLOSURES AND COMPLIANCE**

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**Abstract**

*The shifting from IGAAP to Ind AS has resulted in a change in accounting for intangible assets, earlier accounting standard on intangible assets (IGAAP AS-26) prescribe amortization of intangible assets. In contrast, new accounting standards (particularly, Ind AS-38) prescribes annual amortization only for intangible assets with a definite life and annual impairment testing for intangible assets with an indefinite life. Thereby this transition has resulted in a change in the accounting treatment of 'Brand.' The purpose of the current study is to provide evidence of the extent of compliance concerning the disclosure requirements of brand impairment testing as per Ind-AS 36.*

**Keywords:** brand, brand impairment, brand impairment testing, testing, disclosure, compliance

The International Accounting Standards Board developed international financial reporting standards (IFRS) to harmonize accounting standards across all the countries. India adopted IFRS with modifications, and the set of standards is known as IndAS. Accounting for intangible assets has undergone significant change under IndAS as compared to the earlier set of accounting standards, known as IGAAP.

IGAAP prescribes annual amortization of intangible assets, whereas IndAS prescribe annual amortization only for intangible assets with a definite life and annual impairment testing for intangible assets with an indefinite life. Brand an intangible asset in the balance sheet is subject to amortization if it has a definite life; otherwise, annual impairment testing is required. The purpose of the current study is to provide evidence of the extent of compliance concerning the disclosure requirements of brand impairment testing as per Ind-AS 36. The paper has the sections, viz. a) Estimates required for impairment testing, b) Disclosure requirement as per Ind-AS 36, c) Research methodology and d) Result and discussion

Estimates required for impairment testing: As per Ind-AS 36, an asset is impaired when its carrying amount exceeds its recoverable amount. Carrying amount is the amount at which an asset is recognized after deducting any accumulated depreciation (amortization) and accumulated impairment losses thereon. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use. For impairment testing of a brand, the firm needs to calculate the recoverable amount, for which it has to calculate the fair value and its value in use. The current paper focuses only on the value in use and related estimates.

As defined by Ind-AS 36, the value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit. For calculating value in use, the firm has to make the following estimation-i) Remaining useful life, ii) Cash flow projections, iii) Discount rate

Disclosure requirement as per Ind-AS 36: As mentioned in the above section firms need to estimate useful economic life, cash flow, and the discount rate to measure value in use, it is expected that a firm provides disclosure in its annual report about these estimates. In the absence of such disclosures, readers will be clueless about the

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impairment testing method adopted. In the event of no impairment charge on brand, such disclosures become critical, as it will help readers to understand the economic rationale behind it.

For transparency, Ind-AS 36, particularly para 134 to 137, has prescribed disclosure requirements concerning estimates used to measure recoverable amounts of goodwill or intangible assets with indefinite useful life. The current study focuses only on the value in use estimates hence only requirements laid down in para 134 (d) (i)–(v) have been considered, which are described as i) Assumptions based on which cash flow projection are made ii) Description of management's approach to determining the values assigned to each key assumption iii) Period for which cash flow projections are made, iv) Growth rate used in projecting cash flows v) The discount rate applied to cash flow projection

### **Research methodology**

Sampling methodology - firms were included in the sample upon fulfillment of following sampling requirements – It should be a constituent firm of CMIE COSPI index for Manufacturing sector, or Services sector. It should have reported brand & trademark as on March 31, 2018, under Ind-AS. It should not have charged impairment and amortization on brand & trademark for the year 2018-19 Its value of net brand & trademark as on March 31, 2018, should be 50 million or more. Following firms satisfied all the conditions as mentioned above –A D F Foods Ltd.; Agro Tech Foods Ltd.; Dish T V India Ltd.; Future Retail Ltd.; Goodricke Group Ltd.; Havells India Ltd.; Hindustan Media Ventures Ltd.; J K Agri Genetics Ltd.; Marico Ltd.; Pidilite Industries Ltd.; Ruchi Soya Inds. Ltd.; Spencer's Retail Ltd.;

### **Result and Discussion**

The disclosure level of the impairment test is abysmal, with an average score of 16.67 percentage. Out of twelve firms, nine did not provide any disclosure on the impairment test, and two firms had some disclosure, whereas only one firm provided all the required disclosure. Overall disclosure analysis reflects an inferior reporting environment by the Indian firms. The following table summarises the disclosure analysis findings

**Table 1 - Disclosure Analysis**

S.No.	Firms	Assumptions based on which cash flow projection are made	Description of management's approach to determining the values assigned to each key assumption	Period for which cash flow projections are made	Growth rate used in projecting cash flows	The discount rate applied to cash flow projection
1	A D F Foods Ltd.	0	0	0	0	0
2	Agro Tech Foods Ltd.	0	0	0	Yes	Yes
3	Dish T V India Ltd.	0	0	0	0	0
4	Future Retail Ltd.	0	0	0	0	0
5	Goodricke Group Ltd.	0	0	0	0	0
6	Havells India Ltd.	0	0	Yes	Yes	Yes
7	Hindustan Media Ventures Ltd.	0	0	0	0	0
8	J K Agri Genetics Ltd.	0	0	0	0	0
9	Marico Ltd.	0	0	0	0	0
10	Pidilite Industries Ltd.	Yes	Yes	Yes	Yes	Yes

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11	Ruchi Soya Inds. Ltd.	0	0	0	0	0
12	Spencer'S Retail Ltd.	0	0	0	0	0

**Item wise analysis**

Assumptions based on which cash flow projection are made: Only one firm provided disclosure for the management's assumptions based on which cash flow projections were made. Eleven firms did not provide any disclosure on this item,

Description of management's approach to determining the values assigned to each key assumption: Only one firm provided disclosure for the management's approach to determining the values assigned to each key assumption

Period for which cash flow projections are made: Two firms provided disclosure for the period for which cash flow projections are made; the remaining ten firms did not disclose the cash flow projection period.

Growth rate used in projecting cash flows: Three firms disclosed the growth rate based on which cash flow projections are made; the remaining nine firms did not disclose the growth rate.

The discount rate applied to cash flow projection: Three firms disclosed the discount rate used for value in use calculation; the remaining nine firms did not disclose the discount rate.

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Annual reports of the sample firms for the year 2017-18 and 2018-19

## LAW RELATING TO EUTHANASIA IN INDIA: A CRITICAL STUDY

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**Abstract**

*Euthanasia and its procedure entail complicated issues regarding legal and procedural compliance in countries across the world. Every person has a right to determine what should be done with his/her person. It is unlawful to administer treatment on an adult who is conscious and of sound mind, without his consent. Patients with Permanent Vegetative State (PVS) and no hope of improvement cannot make decisions about treatment to be given to them. It is ultimately for the Court to decide, as to what is in the best interest of the patient. Every human being desires to live and enjoy the life till he dies. But sometimes a human being wishes to end his life in the manner he chooses. To end one's life in an unnatural way is a sign of abnormality. When a person ends his life by his own act we call it "suicide" but to end a person's life by others on the request of the deceased, is called "euthanasia" or "mercy killing".*

**Keywords:** *Euthanasia; legal rights; active euthanasia, passive euthanasia.*

Euthanasia is mainly associated with people with terminal illness or who have become incapacitated and don't want to go through the rest of their life suffering. A severely handicapped or terminally ill person supposed to have the right to choose between life and death. This right of a patient with terminal illness cannot be equated with an able bodied, sane person's right. Euthanasia is a controversial issue which encompasses the morals, values and beliefs of our society.

**Rationale of the Study**

The inquisitiveness of the author with respect to know about the conventions; to study the legislation in some countries relating to euthanasia; to study and understand the meaning of brain death; to study Euthanasia in the intentional premature termination of another person's life either by direct intervention (active euthanasia) or by withholding life-prolonging measures and resources (passive euthanasia), either at the express or implied request of that person (voluntary euthanasia), or in the absence of such approval (non-voluntary euthanasia) compelled to go ahead with this direction. A society, which functions within the framework of welfare state as envisaged in new Indian polity aiming at ensuring a minimum desirable standard of living to each and every member, is obliged to come forward to understand the true nature and scope of this.

**Scope of the Study**

The scope of this study is to know about the law relating to euthanasia in India, specifically in the context of permissible limit. The author tries to inquire into the existence and implementation of the law relating to euthanasia in India.

**Research Methodology**

This study will be partly Empirical and partly Doctrinal. In Doctrinal part, two types of reference will be used i.e. primary sources and secondary sources. Primary sources consist of statute and legislations and secondary sources are books, journals, articles. In Empirical part, the primary data will be obtained by field survey from common people to assess the knowledge of the common people with respect to the concept of euthanasia. The sample of 60 persons were taken up and interviewed. For empirical

study the researcher proposes to adopt field survey method for data collection from selected areas by means of interview through questionnaires. Basically the structured/close ended questionnaires were asked. Questionnaire method is helpful to collect data from large, diverse and widely scattered people. Accordingly 60 common people were interviewed through structured questionnaires, who were resident of Chinsurah sub-division under Hooghly District of West Bengal. The information has been collected on stratified random sampling method. The data obtained through the field survey is processed and presented in appropriate table for deriving conclusions. Simple statistical tools like percentages, is used for deriving inferences and conclusions.

### **Research Questions**

The basic questions which the present study has raised for considerations are: What is the present position of euthanasia in India? Is the existing law adequate to handle the issue? What changes are needed to better handle the issue?

### **Hypothesis**

The Hypothesis is as follows: Euthanasia is a conflict between Life and Death; The Indian Constitution is silent about euthanasia.; Voluntary death is taken as an attempt to suicide leading to criminal offence.; Passive euthanasia has legal recognition in India.; When someone unconscious or of unsound mind and is a terminally sick patient passive euthanasia can be lawfully granted without his consent.

### **Literature Review**

In any research, literature review plays an important role. It is not only important but also essential when the author writes about any research report. It is a required homework that ought to have been done carefully. It is a fact finding task and initial step of any research. It depicts the pictures about what research has been done in the past of the topic chosen by the researcher. The main aspect of literature review is that it judge, sums up, compares and contrasts, connects various books, articles, other relevant sources that are very much related to the present research. It sharpens the focus of the researcher. A comprehensive review of relevant literature is essential as it place the research study in its proper perspective by narrating the amount of work already done in the related area. To build clarity of thought literature review plays a pivotal role. By identifying gaps in the existing literature, the researcher can justify the originality of the proposed research. The analytical features of a literature review might trace the intellectual progression of the field; identify the gaps exist till date. A good number of studies relevant for the present research have been studied.

### **Historical Background**

It was practiced in ancient Greece and Rome.<sup>1</sup>Euthanasia is not accepted in Judaism and Christian traditions. Protestantism supported suicide and euthanasia while it was an accepted practice during the Age of Enlightenment. In early 19<sup>th</sup>century this word came to be used in the sense of speeding up the process of dying and the destruction of so-called useless lives and today it is defined as deliberately ending the life of a person suffering from an incurable disease. Some are supportive of right to die. The argument

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<sup>1</sup>[http://shodhganga.inflibnet.ac.in/jspui/bitstream/10603/216022/5/05\\_chapter%202.pdf](http://shodhganga.inflibnet.ac.in/jspui/bitstream/10603/216022/5/05_chapter%202.pdf)

against euthanasia started in 1870.<sup>2</sup> Religions like Hinduism, Jainism and Buddhism recognize willful death. The western religion has always viewed euthanasia as dishonest exercise of divine privilege. Islam does not accept any kind of justification for the killing of person and thus euthanasia and suicide are prohibited in Islam.<sup>3</sup>

### **Euthanasia: Meaning**

Euthanasia is a Greek word. It is a combination of two words eu-good and thanatos-death means "good death"<sup>4</sup>. Thus, 'Euthanasia' is defined as the intentional premature termination of another person's life either by direct intervention (active euthanasia) or by withholding life-prolonging measures and resources (passive euthanasia). It is either at the express or implied request of that person (voluntary euthanasia), or in the absence of such approval (non-voluntary euthanasia).<sup>5</sup> According to J.S. Rajawat, Euthanasia is putting to death a person who because of disease or extremely old age or permanent helplessness or subject to rapid incurable degeneration and cannot have meaningful life.<sup>6</sup> When euthanasia is practiced with the expressed desire of the patient it is called voluntary euthanasia. <sup>7</sup> Non voluntary euthanasia refers to ending the life of a person who is not mentally competent to make an informed decision about dying, such as a comatose patient. Instance can be enumerated, like severe cases of accident where the patient loses consciousness and goes into coma. In these cases, it is often the family members, who make the ultimate decision.<sup>8</sup> Involuntary euthanasia is euthanasia against someone's wish and is often considered as murder.<sup>9</sup>

Active euthanasia involves painlessly putting individuals to death for merciful reasons.<sup>10</sup> Euthanasia is passive when death is caused by turning off the life supporting systems. Withdrawing life supporting devices from a terminally ill patient which leads eventually to death in normal course is a recognized norm. In "passive euthanasia" the doctors are not actively killing anyone; they are simply not saving him<sup>11</sup>.

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<sup>2</sup>O. Ruth Russell—*Freedom to die – Moral and legal aspect of Euthanasia*" (1997) Revised Addition (p.65-67)

<sup>3</sup>Tanusree Chakraborty made a Dissertation on Euthansis and submitted to the Dept. of Law, the University of Burdwan in 2017.

<sup>4</sup>Lewy G. 1. Assisted suicide in US and Europe. New York: Oxford University Press, Inc; 2011.

<sup>5</sup>AngkinaSaikia, Euthanasia 'Is It Right To Kill' or 'Right To Die', Cr IJ 356 (2012).

<sup>6</sup>J.S. Rajawat, Euthanasia, Cr 14 321 (2010).

<sup>7</sup>Dr. Parikh, C.K. (2006). Parikh's Textbook of Medical Jurisprudences, Forensic Medicine and Toxicology. 6th Edition, Page 1.55. Ne Delhi, CBS Publishers & Distributors.

<sup>8</sup>Ibid.

<sup>9</sup>This kind of euthanasia is usually considered wrong by both sides hence rarely discussed. In this case, the patient has capacity to decide and consent, but does not choose death, and the same is administered. It is quite unethical and sounds barbaric. During World War II, the Nazi Germany conducted such deaths in gas chambers involving people who were physically incapable or mentally retarded.

<sup>10</sup>A doctor administers lethal dose of medication to a patient. In India active euthanasia is illegal and a crime under section 302 or at least section 304 IPC. Physician assisted suicide is a crime under section 306 IPC (abetment to suicide). There are four types of euthanasia: Voluntary and direct, Voluntary but indirect, direct but involuntary, and indirect and involuntary. Voluntary and direct euthanasia is chosen and carried out by the patient. Voluntary but indirect euthanasia is chosen in advance. Direct but involuntary euthanasia is done for the patient without his or her consent. Indirect and involuntary euthanasia occurs when a hospital decides that it is time to remove life support.

<sup>11</sup>Aruna Ramchandra Shanbaug v. Union of India, 2011(3) SCALE 298; MANU/SC/0176/2011.

### **Indian Law on Euthanasia**

Section 87 of the Indian Penal Code clearly states that consent cannot be pleaded as a defense in case where the consent is given to cause death or grievous hurt. There is punishment for attempting suicide as mentioned Section 309 of the Indian Penal Code. A doctor administers lethal dose of medication to a patient. In India active euthanasia is illegal and a crime under section 302 or at least section 304 IPC. Physician assisted suicide is a crime under section 306 IPC (abetment to suicide). Patients are allowed to choose passive euthanasia but cannot choose active euthanasia. Passive euthanasia is when nothing can be done to prevent death. Making euthanasia legal is a bold step for a nation like us. In India, euthanasia is undoubtedly illegal. Since in cases of euthanasia there is an intention on the part of the doctor to end the life of the patient, such cases would clearly fall under clause (1) of Section 300 of the Indian Penal Code, 1860 and treated as murder. However, if there is a valid consent of the deceased then Exception 5 to the said Section would be attracted and the doctor would be punishable under Section 304 for culpable homicide not amounting to murder. But it is only cases of voluntary euthanasia that would attract Exception 5 to Section 300. Cases of non-voluntary and involuntary euthanasia would be struck down by proviso one to Section 92 of the IPC and thus be rendered illegal. But now Union Government has decided to decriminalize section 309 IPC by deleting it from the Indian Penal Code. 18 state governments and 4 union territories have supported the recommendation of the Law Commission of India. We can say that is a welcoming step, with respect to honoring the wishes of the people concerned.

### **Role of Judiciary**

The Bombay High Court in *Maruti ShripatiDubal's* case<sup>12</sup> has attempted to make a distinction between suicide and euthanasia or mercy killing. According to the court the suicide by its very nature is an act of self killing or termination of one's own life by one's act without assistance from others. But euthanasia means the intervention of other human agencies to end the life. Mercy killing therefore cannot be considered on the same footing as on homicide, whatever is the circumstance in which it is committed. In Naresh Marotrao Sakhre's case<sup>13</sup> the Bombay High Court also observed that suicide by its very nature is an act of self killing or self destruction, an act of terminating one's own life and without the aid and assistance of any other human agency. Euthanasia or mercy killing on the other hand means and implies the intervention of other human agency to end the life. Mercy killing is thus not suicide. The two concepts are both factually and legally distinct. The Supreme Court in *Gian Kaur v. State of Punjab*<sup>14</sup>, clearly held that euthanasia and assisted suicide are not lawful in our country. In *P. Rathinam's* case<sup>15</sup>, the Supreme Court held that section 309 of the IPC is violative of Article 21 of the Constitution as the latter includes right to death.

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<sup>12</sup>Maruti ShripatiDubal v. State of Maharashtra; 1987 Cri.L.J 743 (Bomb)

<sup>13</sup>Naresh Marotrao Sakhre v. Union of India; 1995 Cri.L.J 95 (Bomb)

<sup>14</sup>1996 SCC (2) 648

<sup>15</sup>P. Rathinam vs. Union of India and Anr., 1994 SCC 394

## EUTHANASIA LAW

The question again came up in *Gian Kaur v. State of Punjab*<sup>16</sup> case. In this case a five judge Constitutional bench of the Supreme Court overruled the *P. Rathinam's* case and held that right to life under Article 21 does not include right to die or right to be killed and there is no ground to hold section 309, IPC constitutionally invalid. The true meaning of life enshrined in Article 21 is life with human dignity. Any aspect of life which makes a life dignified may be included in it but not that which extinguishes it. In *Chenna Jagadesswar v. State of Andhra Pradesh*,<sup>17</sup> the Andhra Pradesh High Court held that right to die is not a fundamental right under article 21 of the Constitution. In *Aruna Shanbaug*,<sup>18</sup> the Hon'ble Supreme Court, in its landmark judgment, allowed passive euthanasia in India.

### International Aspect

Although it is a crime in most Australian States to assist euthanasia, prosecutions have been rare. In the year 1999, Euthanasia was legalized in Albania. Euthanasia was made legal in the year 2002, in Belgian. Netherlands is the first country in the world to legalize both euthanasia and assisted suicide in 2002. In Canada, patients have the rights to refuse life sustaining treatments but they do not have the right to demand euthanasia or assisted suicide. In USA, active euthanasia is prohibited but physicians are not held liable if they withhold or withdraw the life sustaining treatment of the patient either on his request or at the request of patient's authorized representatives. In England, the House of Lords have now settled that a person has a right to refuse life sustaining treatment as part of his rights of autonomy and self-determination. In Switzerland, euthanasia is illegal but physician assisted suicide has been made legal.<sup>19</sup>

### Data Analysis through Table<sup>20</sup>

**Table 1: Opinion given by common people at Chinsurah Sub-division, Hooghly District**

Question Number	Questions put to the Respondents (Total No. of Respondents: 60)	Answers in %	
		YES	NO
1.	Is the existing law adequate to handle the issue of euthanasia?	35	65
2.	Do you think that euthanasia is a conflict between life and death?	50	50
3.	Does our Constitution is silent about euthanasia?	60	40
4.	Do you know about voluntary death?	30	70
5.	Do you know that passive euthanasia has legal recognition in India/	25	75
6.	When someone is a terminally sick, passive euthanasia can be lawfully granted without his consent?	30	70
7.	Do you think that a special law of euthanasia should be enacted?	25	75

<sup>16</sup>1996 SCC (2) 648

<sup>17</sup>1988 Cr LJ 549

<sup>18</sup>*Aruna Ramchandra Shanbaug v. Union of India*, AIR 2011 SC 1290.

<sup>19</sup>Supra note 3 at Pp. 52-54.

<sup>20</sup>Field survey by the author.

No. Of Male Respondent: 30		No. Of Female Respondent: 30	
Age wise-- Male	From 21-30 years: 08	Age wise-- Female	From 21-30 years: 07
	From 31-40 years: 09		From 31-40 years: 11
	From 41-50 years: 10		From 41-50 years: 07
	From 50 and above years: 03		From 50 and above years: 05

**Conclusion and Suggestions**

At present there is no specific law exclusively dealing with euthanasia. However a consideration can be given for enacting a law for carrying out euthanasia. But it poses practical problems. Euthanasia is a process which cannot be applied generally. Every case is different and thus requires different standards. The conditions and requirements for carrying out euthanasia are not watertight compartments. It is also important to mention that majority of the Hypothesis which the author has framed, have been proved. Euthanasia is not a common situation but quite a rare condition. What India needs is the maturity to handle the issue and understanding its pros and cons thoroughly. The requirement of having legislation on euthanasia depends on the intensity of number of patients with terminal illness and the gravity of such situations. It is also feared that placing the discretion in the hands of the doctor would be placing too much power in his hands and he may misuse it. Recently the judgment given by Supreme Court in *Aruna Ramchandra Shanbaug v. Union of India*, legalized the passive euthanasia and observed that passive euthanasia is permissible under supervision of law in exceptional circumstances but active euthanasia is not permitted under the law. However the author suggests that at present there is no need to enact an exclusive law dealing with euthanasia. It is also suggested that the State should widely circulate the decision given by the Supreme Court in Aruna Ramchandra case.

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**INDIA VISION 2020: DREAMS TO ACHIEVE**

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**Abstract**

*India is a land of people of passionate love, and faith. Today technological advancement is not a major issue for India rather expansion and its reach to all, is important. China reported about Corona Virus to the World Health Organization in the month of December 2019. It felt the brunt of it. This virus shook entire world. Thousands of people died and now many countries of the world are facing the problem at different level. To prevent people from this deadly virus, government had decided to 'Lockdown' entire economic activities and movements of people which has shaken the economy of the world and the nations got affected by it. Yet in this situation, this paper focusses on the dreams to achieve.*

**Keywords:** *India, Vision, Vision 2020, Dreams, India Dreams*

It has been a strong alarming bell to awaken us about poor medical infrastructure and facilities available in our country. After tremendous scientific and technological development in last fifty years, the nation is busy in building statues, temples and setting up a different tone of religious temperament and its fabrics. India's vision of moving from an agrarian country to an industrial nation and further on a 'developed nation' has still miles to go. The debate of being 'secular', 'nationalist' or 'rastrabhakt' took all our intellectual wisdom on a different route. Restructuring constitution and social fabric appear to be the important issues. The journey of 'Vikas' seems has lost its track. There are huge and serious challenges to push Indian Economy and fulfil the basic requirements like employment, good education, medical facilities, availability of quality food and its justified distribution, deserving prices to farmers and many other issues. Putting everyone on the same page and singing in the same tune is not easy for the government in a democratic country like India. Efforts to change the chemistry of the nation through political will, is hard. All maths of the government fails when it comes to redesign the social engineering of India. But one thing is for sure, to paint a new beautiful picture of 'Bharat Mata' would require economic stability and happy living of every citizen of this country. What we have gained from this pandemic is that technology can be an important player. School teachers and colleges professors and students had to conduct online sessions, issues homework through whatsapp and conducting classes on 'Zoom' and other applications and sights. Conducting on-line tests sharing results with students have been new widely used exercise by the education world.

India got freedom in 1947 from British rule. India has been dealing with its immediate requirements rather than working on a roadmap. The unstable government and multiparty culture has been responsible for it to some extent. Immediate issues like 'corruption', 'religious sentiments', national security, unemployment, social justice women safety and others are our operational agenda rather working on a plan for a developed country.

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important. There had been no strongly convincing idea expressing the merits of Bullet Train Project a \$17 billion investment. Many critics believe India does not need the high speed train and investment should go instead to improve the existing network.

For Bullet train project the loan is for 50,000 with an interest of 0.1% for 50 years => repayment value is 25,02,500 Cr. There is a moratorium of 10/ 15 years for repayment. Now the interesting part is that 30% is reserved for purchases from Japan so 15,000 Cr goes back home instantly, i.e., the money actually available to India is actually 35,000. The equipment being purchased from the 15,000 has to be maintained - those spares will also come from Japan. So, say 10% annual maintenance cost for 40 years =  $15,000 \times 0.1 \times 40 = 60,000$  So, based on the actual loan amount of 35 000 the actual interest rate is about 1.46%. Now the Bank of Japan interest rates are 0.1% and have been around that value for 15 years. In effect by giving this loan - Japan is going to get an RoI( Return on Investment) that is roughly 15 times better than what they could get by keeping the money in Japan itself! The train will run between Mumbai to Ahmedabad. Whether fare prices could attract client who would prefer to travel by air than train with respect to travel time and its cost and comfort. There are large number of issues, need to be addressed such as delay of trains, poor hygienic conditions and safety.

The government has faced criticism for going ahead with the project of the tallest statue of unity, which cost some 29.9 billion rupees. The project has destroyed natural resources and those families that had to be relocated from the site of the statue. Videos of puddles of water on the floor and water dripping off the roof of the Rs 3,000Cr. statue's viewing gallery came in for criticism from many, who termed the incident "unfortunate". This is done in the year when according to National Crime Records Bureau (NCRB) data on accidental deaths and suicides, 5,763 farmers/cultivators and 4,586 agricultural laborers committed suicide in 2018. Another statue being built near Mumbai is expected to exceed the Patel monument in height and cost.

Let's ask a basic question, who has to take lead for India to become a developed nation? The major stake holders are the government, people as consumer and people as producer.

Let's understand the role of the present or the previous governments in this regards. A India's permanent seat in the UN Security Council is merited. The United Nations ought to be re-created to present the geopolitical substances of the 21st century. India properly legitimize a permanent seat in the UN Security Council, due to being the biggest majority rule government on the planet, home to 1/sixth of humankind of the world, fourth greatest economy".( Kumar, Gudipati Rajendra (2017, October 26, India's effort for permanent seat). It made consistent and sincere efforts since 1950-95, but its relation with India was pushed by the United States and the Soviet Union to join the Security Council in 1950 and 1955 separately as a permanent member but not at the cost of China. India has been a member from the Council in the midst of 1950-51, 1967-68, 1972-73, 1977-78, 1984-85, 1991-92, all in all, 2011-12 which was seen as a 'practice for permanent membership'. India's execution as a non-permanent

member from the Security Council in the midst of 2011-2012 has in like manner in a general sense sustained India's case to permanent membership.

At a couple of open occasions, four of the five permanent members have maintained India's advertised. China is the primary permanent member that has been unclear in its assistance for India, inferable from its adjacent ties with Pakistan. Other part states, like the United Arab Emirates (UAE), Singapore, Malaysia and the whole of the African Union have moreover upheld India's advertised. The Nordic countries - Sweden, Denmark, Iceland, Norway, Finland - have bolstered India's offered for a permanent membership of United Nations Security Council and named as a "strong candidate" for its top organ.

India's case for permanent membership is a veritable interest in the changed geo politics of 21st century. India is maybe the most clear and least questionable decision to incorporate as a permanent member, and likely long overdue for a seat. But we have not yet been able to make it. Indian government need to make a collective political aspiration and calculated designed efforts to secure a permanent seat at UNSC.

### **Economy at glance**

For the first time in seven years, India's GDP grew below 6 percent year over year for two consecutive quarters, forcing policymakers and markets to rethink India's outlook. The first quarter of FY2019–20 registered 5 percent growth, the slowest since the fourth quarter of FY2012–13. Three of the four growth engines—private consumption, private investment, and exports—have slowed down significantly. Consumption, the biggest contributor of growth, fell to an 18-quarter low of 3.1 percent in Q1 FY2019–20, pointing to fragile consumer sentiment and purchasing ability. Investments grew 4 percent, marginally up from 3.6 percent in the previous quarter. Exports grew 5.7 percent and have remained volatile owing to global uncertainties around trade and investments and geopolitical tensions. The fourth engine, government consumption and investment, is running out of steam because of the limited elbow room the government has for counter-cyclical spending as the budget deficit remains under pressure.

Not much relief is expected from the global economy either. Growth is slowing across the globe and the International Monetary Fund (IMF) has cut its 2019 global growth forecast to 3.0 percent from 3.2 percent. Global trade volume growth has been steadily declining since 2018 owing to uncertainties around trade policies. The World Trade Organization (WTO) economists expect merchandise trade volume growth to fall to 2.6 percent in 2019—down from 3.0 percent in 2018. In the United States, despite a tight labour market and strong retail sales, policy uncertainties are weighing on business sentiment, and thereby business investment decisions. Sharply falling long-term yield rates and policy rate cuts by the Federal Reserve are indications of economic headwinds in the coming quarters.

The development project in India is nowhere near complete – indeed it has barely begun. It is still a poor country: per capita income remains below \$2,000 (£1,206) at actual exchange rates, and there is still widespread destitution. Development is supposed to involve job creation, with more workers in formal employment in large

## *DREAMS TO ACHIEVE*

units, but that has not happened. Manufacturing still counts for less than one-fifth of both output and employment. More than half of all workers languish in low productivity agriculture, while another quarter or so are in low grade services. About 95% of all workers are in informal employment, and roughly half are self-employed. What's more, the recognised and paid participation of women in working life has actually been declining in a period of rapid income growth.

This basic failure helps to explain several other failures of the development project so far: the persistence of widespread hunger and very poor nutrition indicators; the inadequate provision of basic needs like housing, electricity and other essential infrastructure; the poor state of health facilities for most people; and the slow expansion of education. Growing inequalities do mean that a rising middle class is emerging, but this should not blind us to the lack of fulfilment of basic social and economic rights for the bulk of people.

Few lines of a poem by Robert Frost give a lot of meaning to this article.

.....“The woods are lovely, dark and deep,  
But I have promises to keep,  
And miles to go before I sleep,  
And miles to go before I sleep”

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