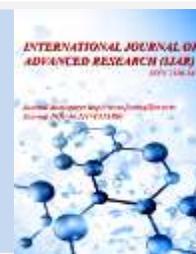




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### RESEARCH ARTICLE

#### ROLE OF COLOURS ON HUMAN LIFE.

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#### Abstract

Life is not only a materialistic subject to study; rather it is an unrevealed truth of the nature, among which human life is most complicated one to understand. In life, another interesting subject of discussion is health. Maintenance of health is the only goal to reach for the betterment of nature. Maintenance of health means avoidance of disease or any kind of damaging influence, which can disturb the health of an individual. Maintenance of health is not only an important issue, rather it is a tough job, because it includes promotion of the healthy habits, healthy choices, healthy food habit, healthy thought, disease free life, avoidance of infections, avoidance of genetic disturbances, avoidance of natural pollutants etc & educate the society in an unbiased and scientific education. Among all parameters, **choice of colour** is our topic of study, which is also an important part for the maintenance of health. Because, colour is associated with every object of this nature and colour preference is usually made by our subconscious mind, according to the nature of the particular person. Choice of colour is important to judge the mental state and physical tendencies of a particular person, even one can calculate the diseases, which can affect a person in future and from that point of view, one can take measures to prevent those diseases. Not only the choice of colors, rather their individual role on human life is also very important to know, because each minutest deviation of any element of nature is sufficient to disturb the entire natural community, because there is nothing individual in this nature. All are the parts of this nature and they are of equal importance that is why any disturbance in one element is sufficient to disturb the entire nature unavoidably. In this study, among the people of different age groups, sex groups and religions, we observe their lifestyle, choices, pathological conditions, even changes of choices in the different phase of their life and the corresponding pathological conditions in those different phases. After this study, we find significant and unavoidable relationship between the colors and human life. Correction of life style is an important part of treatment.

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#### Introduction:-

“Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity.” Therefore, for the maintenance of health, removing the pathological condition is not sufficient; rather there is a need to restore the physical, mental and social status appropriately. There is a lot of thoughts, myths, habits

and practices, prevailed throughout the ages, which are the principal enemies of healthy life and healthy atmosphere. In this civilization, we have emphasized only on the treatment of disease by medicines, but correction of social stigmas still are overlooked. This biasness of the society is responsible for these uncontrolled disease pillars in the society. Diseases are not only disturbing an individual or a family or a group, rather they create a disharmonious condition in the entire nature by several means. Degradation of our thought, our mental stability and our characters are evidences of this disharmony.

In our daily life, an important and unavoidable terminology is **choice**.

Choice involves decision -making. It can include judging the merits of multiple options and selecting one or more from them. This selection must be done in an unbiased manner and based on some fixed and reliable principle. Choice must be done for the overall growth of the nature, because individual growth can be achieved with some deprivation, which is also capable of damaging the natural health. But in our everyday life, the so called choices we use to make, are nothing but the preferences.

Preference generally instituted on the basis of personal comfort and tendency of avoiding risk and this preference must be directed from one's emotional point of view, not the analytical point of view. Preference can be made on the basis of feeling and instinct which are the properties of our subconscious mind and primary preference is free from any manipulation done by the conscious mind. Therefore, preference is able to formulate the basic mental and physical status of an individual and even their past and future sufferings also. Among a number of preferences, preference of colour is an important one to judge the character of an individual, which can help us to prevent his or her future sufferings.

Colour is the quality of an object or substance with respect to light reflected by the object, usually determined visually by measurement of hue, saturation, and brightness of the reflected light. Human eyes are sensitive to light which lies in a very small region of the electromagnetic spectrum, labelled '*visible light*'. This visible light corresponds to a wavelength ranging from 400-700 nm and a colour range from violet to red. We know that, colour of an object is determined by the reflection of the light rays of specific wavelength responsible for that colour (Fig. 01). Light is a kind of electromagnetic radiation, which is characterized by its wavelength, frequency and intensity. This electromagnetic radiation has significant relation with the brain waves.

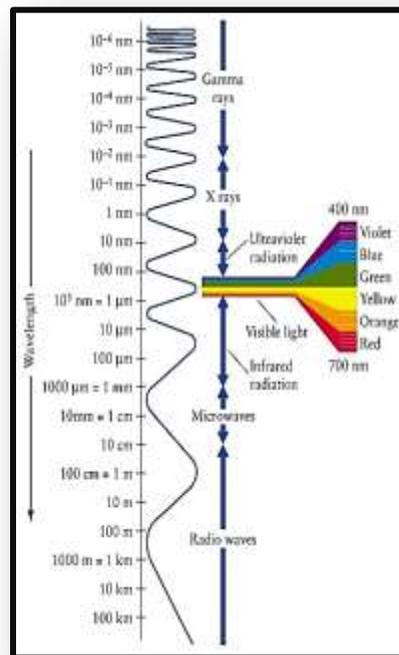


Figure: 01

Although, the human body can be considered as a materialistic entity, but as per our knowledge of Physics, we know that the primitive structure of body i.e. cell is made of several inorganic compounds, which are composed of several molecules made of charged particles in varying number; those particles are composed of several quarks and finally the quarks are the bundles of energy. Not only human body, rather all components of nature are nothing but the bundles of energy. More of all mind is nothing but the energy and for this reason, the thought, memory, emotions all are governed by the stimulus of energy. We can find from this study, how colour- preferences match with the human life in an unavoidable manner and role of colour in the behavioral correction and restoration of health also.

*Historical Analysis:*

In past, from several studies of several universities, most popular colour was royal blue and white among mass, but at present most popular colour is black, then red. Surprisingly, level of intellect has become much lower and depression as if grasp the society rapidly.

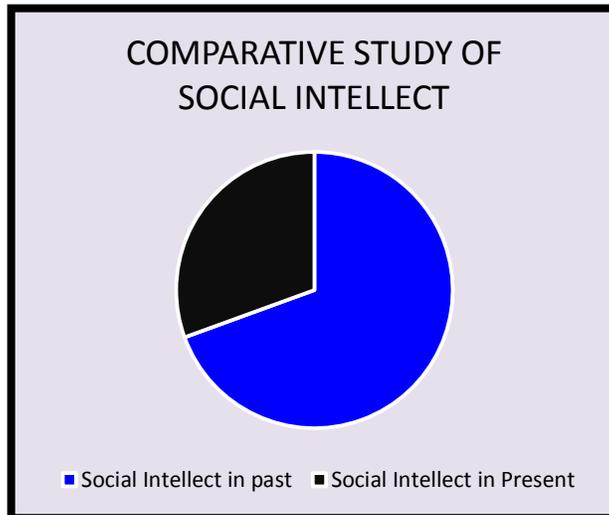


Chart 01

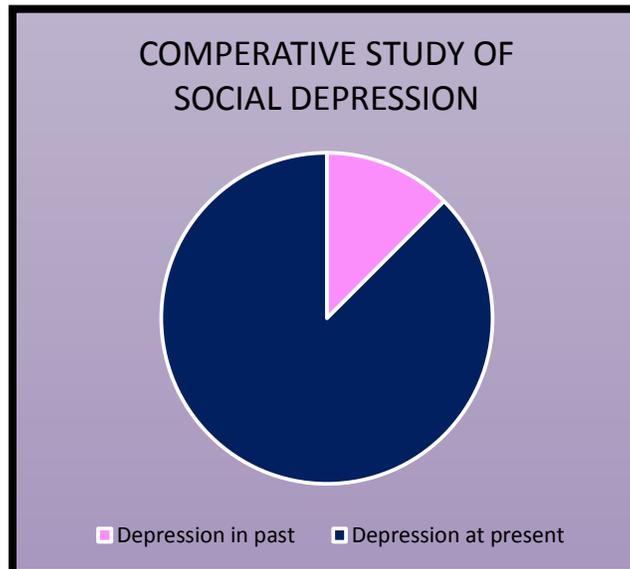


Chart 02

Historical analysis of Suicide & Colour:

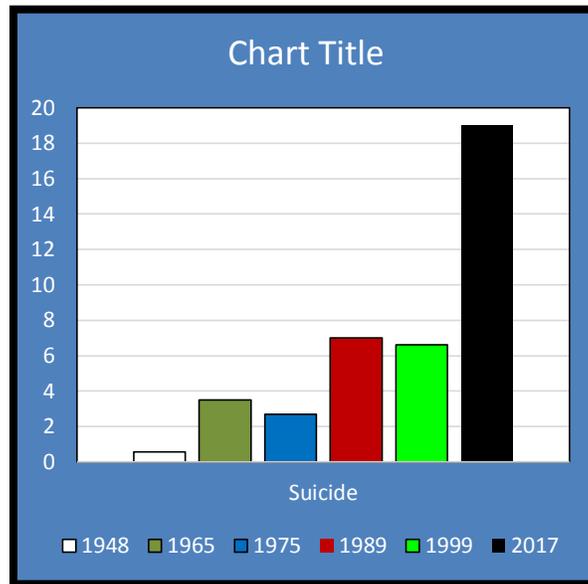


Chart 03

Materials & Methods:

Study groups: Persons of different age group, sex, religion, economic condition, occupation and geographic condition are selected as the study group.

Selection criteria	No. of persons
Age : 12 – 20 years	40
Age: 20- 28 years	80
Age: 30 – 40 years	128
Age: 41 – 50 years	65
Age: 51 – 60 years	50
Male:	182
Female:	155
Transgender	26
Poor:	84
Middle class:	279
Student:	72
Business man:	65
Un employed:	47
Employed:	179
Kolkata:	183
24 pargana (S)	57
24 pargana (N)	44
Bardhaman	62
Midnapore	17
Hinduism	165
Muslim	128
Christian	70

Table No. 01

Collection of Data: All data are collected by careful questioning, observing their life styles, Observing their habits, cross questioning, being confirmed by the third party interrogation, doing pathological examination where needed, organizing several programs to observe their preferences.

Findings:

Colour	Age group	No. of People
Purple	35-50	14
Prussian Blue	22- 30	8
Royal Blue	20-28	12
Bright Blue	20-28	09
Cyan	41-50 51-60	11 09
Indigo	31- 52	07
Dark green		13
Light Green		11
Golden Yellow	45-55	18
Lemon Yellow		07
Faded Yellow	20-28	11
Blood Red	12-20 21-28 30-40	16 21 13
Whitish red		05
Black	20-28 29-34	39 42
White	26-34 51-60	23 36
Biscuit Colour	51-60	14
Bright pink	12- 20	15
Baby Pink	12-20	09

Colour	Anger	Durability	Offended	Aggression	Depression	Advantages	Fear	Emotion	Sympathy	Contentment	Traveling	Changeability of mind	Anxiety	Ego	Contribution Aggravation	Religious	Organizing	Careerist	Disciplined	Creativity	Conspiring	Exhaustion	Intelligence
<b>Royal Blue</b>	Slightly	Short	Not easily	—	Less	Varies	-	+	+	Lack of	++	—	+	-	—	+	+	+	+	+	—	—	+
<b>Prussian Blue</b>	Rapid	Long	Easily	—	---	—	-	+	+	++	+	—	+	+	—	-	—	+	+	-	+	-	+

<b>B r i g h t B l u e</b>	V a r i e s	V a r i e s	E a s i l y	+	---	++	-	-	+	++	N o t i n t e r e s t e d	+	-	+	++	-	+	+	+	+	---	---	+
<b>I n d i g o</b>	V e r y R a p i d	M o d e r a t e	E a s i l y	S e l f - h u r t i n g	+	---	-	+	+	---	-	++	+	-	++	+	---	-	+	-	---	+	+
<b>C y a n</b>	S l o w l y	S h o r t	V e r y E a s i l y		---	-	+	+	+	+	V a r i e s	++	+	-	++	+	+	-	---	+	---	+	+
<b>P u r p l e</b>	R a p i d l y	S h o r t	E a s i l y		---	+	+	+	+	+	+	++	+	-	---	+	+	-	+	+	+	---	+
<b>G o l d e n Y e l l o w</b>	R a p i d l y	V e r y L o n g	V e r y V e r y E a s i l y		++	-	+	+	+	+	+	++	-	+	++	+	+	-	+	+	---	+	+
<b>L e m o n Y e l l o w</b>																							
<b>F a d e d y</b>	V e r y S l	S h o r t	E a s i l y		+	---	+	+	+	---	-	++	+	+	---	+	---	+	---	-	---	+	+

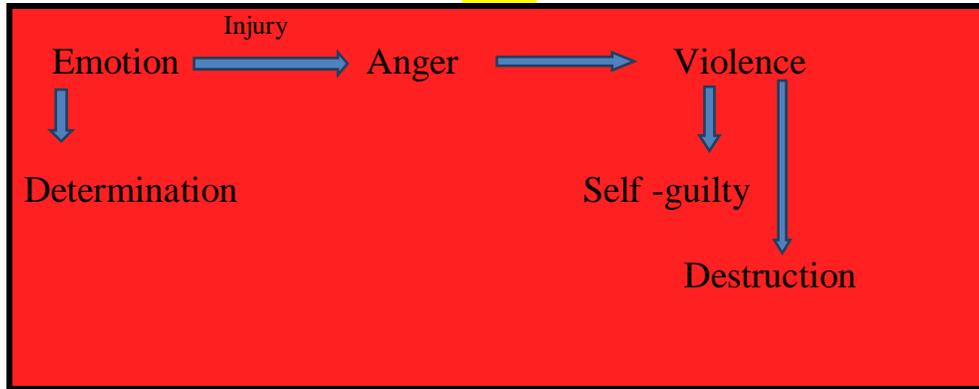


<b>k</b>																								
<b>Blood Red</b>	V ery Rapid	V ari es	N ot E asil y	+	+	++	+	+	+	++	+	+	+	+	++	+	+	+	+	—	V ari es	+	+	+
<b>Milk y Red</b>	R apid	S h or t	N ot E asil y	+	+	+	+	+	—	—	+	+	+	—	—	—	—	—	—	+	—	+	+	+
<b>Black</b>	V ery Rapid	V ari es	V ari es	+	+	++	+	+	+	Lo ss of	+	++	+	+	++	+	+	+	+	+	Ei ther to o m u c h re li gi o u s or e xt re m el y n ot re li gi o u s	+	+	+
<b>White</b>	V ari es	V ari es	V ari es	+	—	++	—	+	+	++	V ari es	—	—	+	++	+	+	+	+	+	+	+	—	+
<b>Biscuit</b>	V ari es	L on g	V ari es	—	+	—	—	+	+	++	+	+	+	—	—	+	+	+	+	+	+	+	+	+

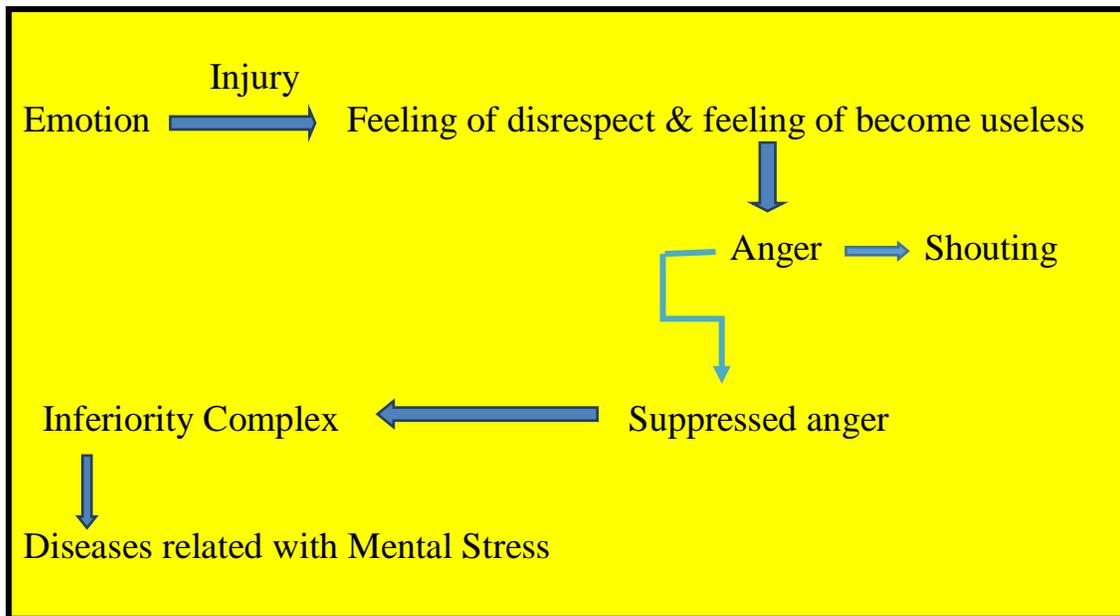


As emotion is the most important factor of human life, so we are going to discuss the varieties of response when injured emotionally. We find different colour have different cause of their emotion and anger, even their fate are also different.

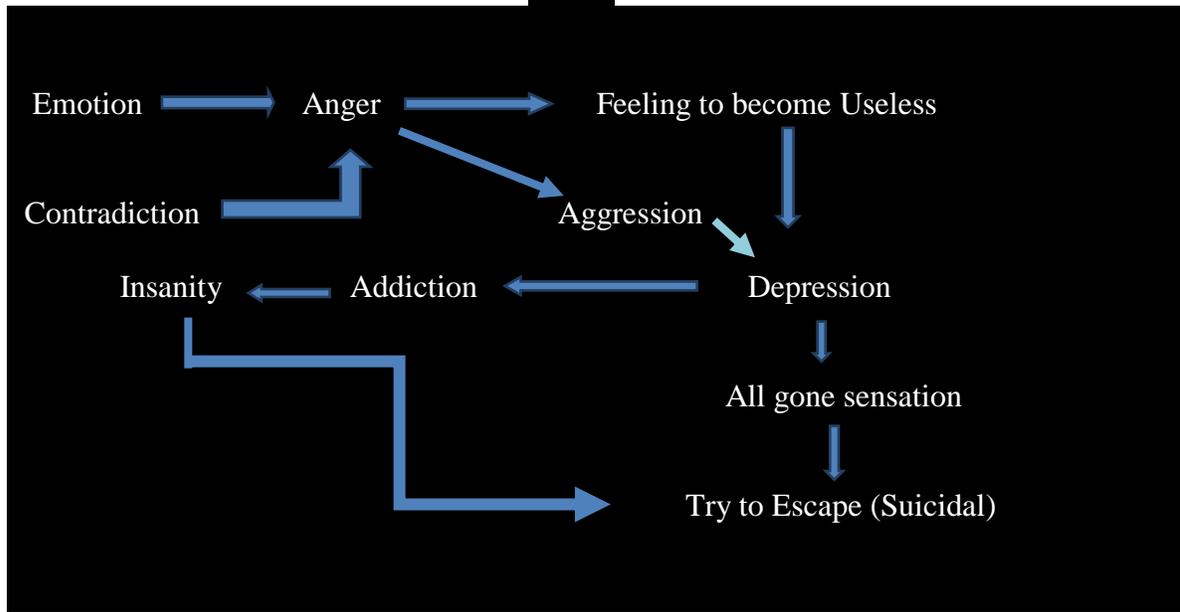
**RED**



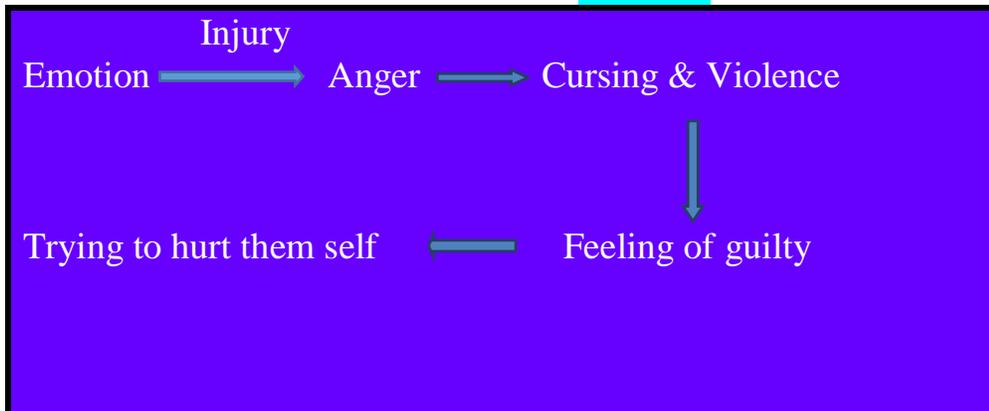
**Golden Yellow**



**Black**



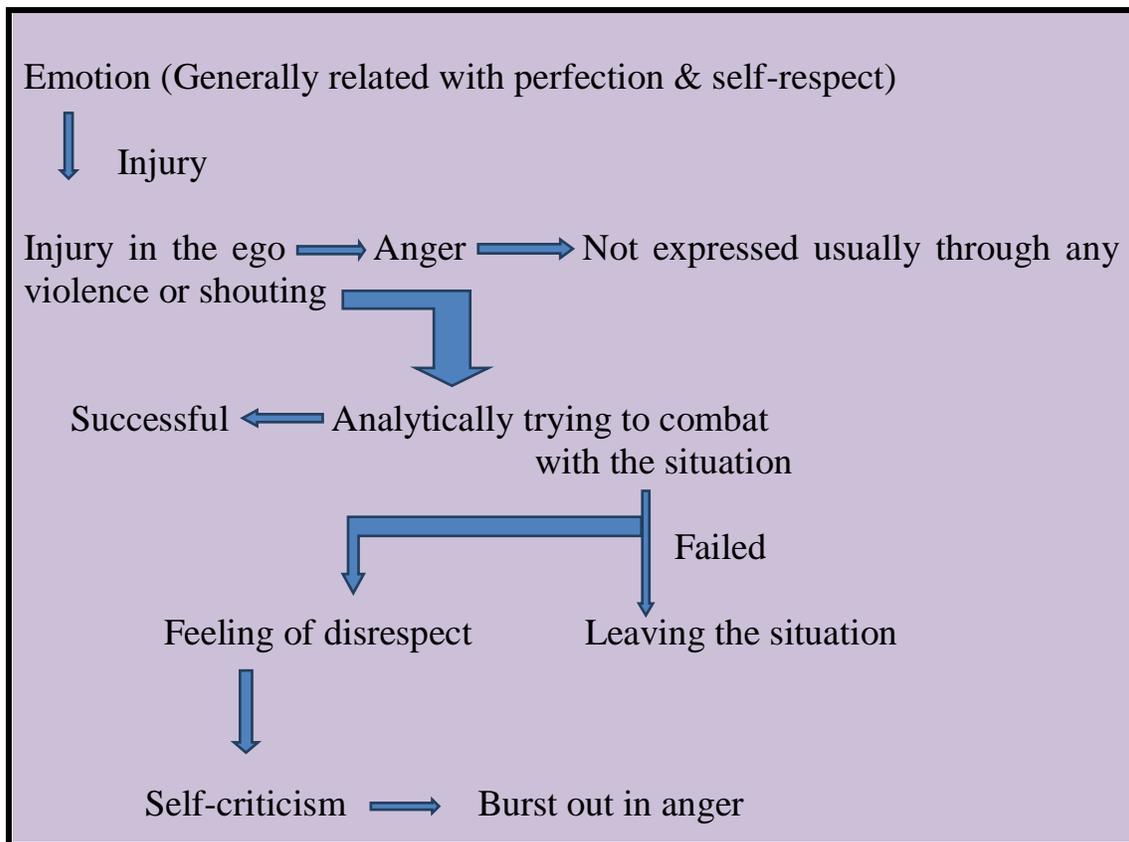
**INDIGO**



**CYAN**



**WHITE**



Just like the emotion, all colour has their individual level of concentration, arrogance etc as mentioned in the Table 03.

Depression & Colour:

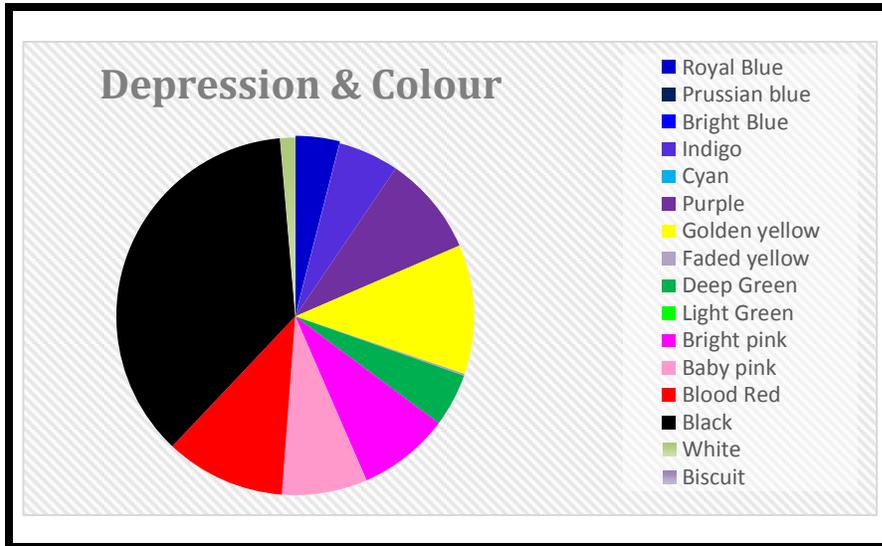


Chart 04

**Chart 04** shows the relative proportions of depression of the persons of respective colour preferences. According to this chart, highest depression is found in the persons whose preferential colour is black, then comes golden yellow and then red.

Concentration & Colour:

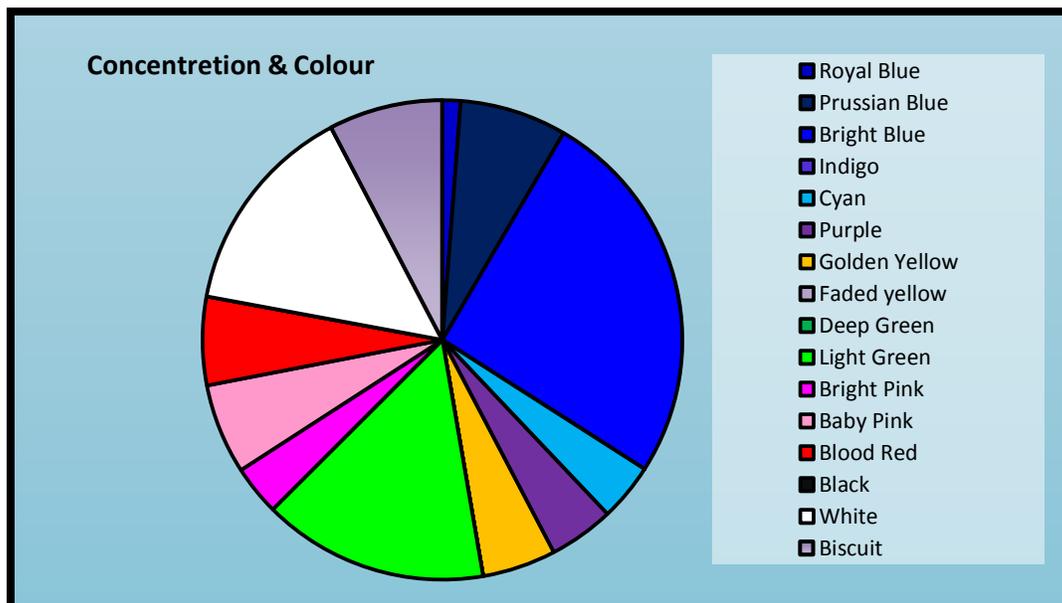


Chart 05

**Chart -05** shows comparative analysis of the data, found regarding concentration power and preference of colour, which is showing the persons with preferential colour blue, white, and light green are able to concentrate their mind in a considerable amount.

Creativity & Colour:

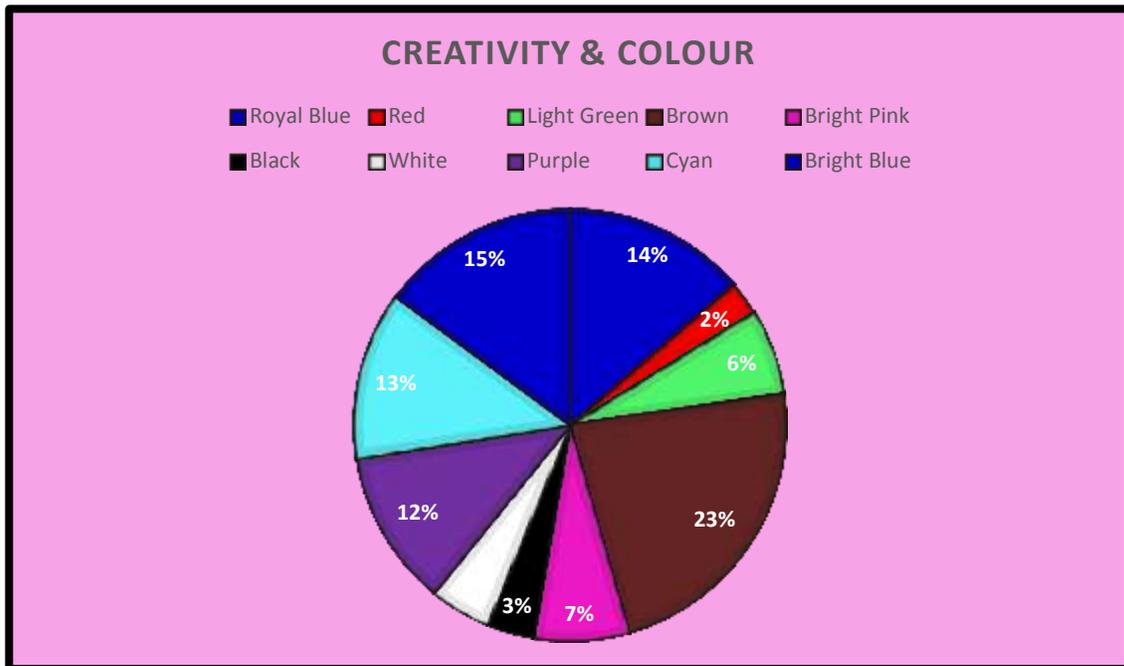


Chart 06

Chart 06 shows comparative analysis of the data, found regarding the enquiry of the creative power in the persons with different colour preferences.

Diversity of Colour preference:

Another interesting information we find in the course of this study is, the persons with multiple colour preferences are much more creative, happy, wise, positive, lively and less depressed than the persons with single colour preference and dependence to an individual colour. Among other combinations, the following are of more gradation of positivity.

Rank	1 <sup>st</sup> colour	2 <sup>nd</sup> colour	3 <sup>rd</sup> colour
01	Bright Blue	Purple	Lemon Yellow
02	Royal Blue	White	Faded yellow
03	Purple	Red	Royal blue
04	Bright pink	Ocean Blue	Light green
05	Blood Red	Royal Blue	Black
06	Cyan	Golden Yellow	Green
07	Light Green	White	Faded yellow
08	White	Bright Blue	Red

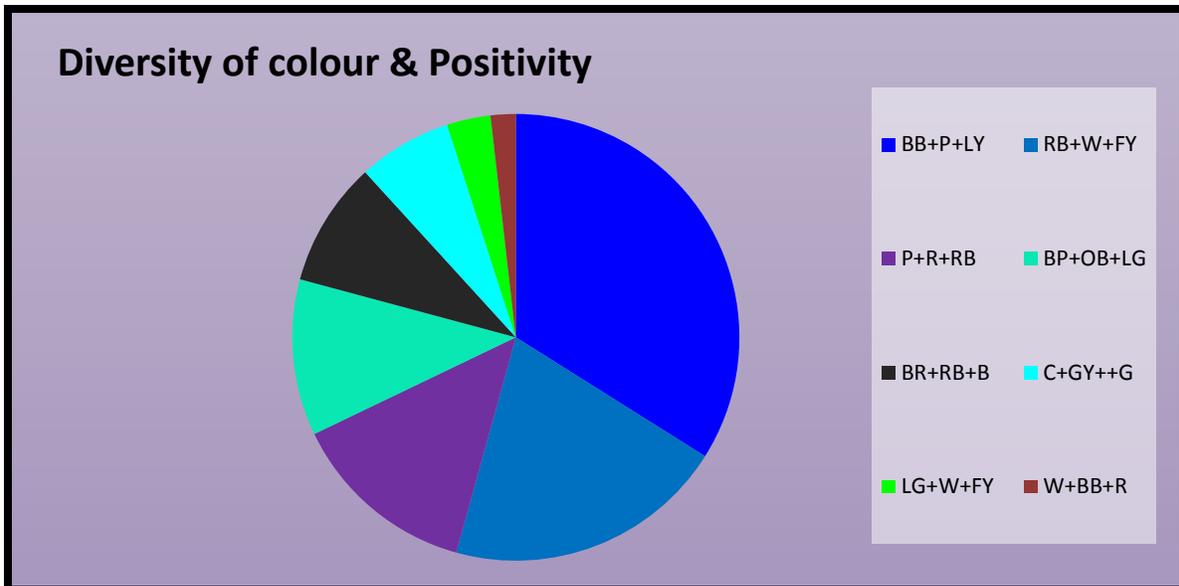


Chart 07

Taste & Colour:

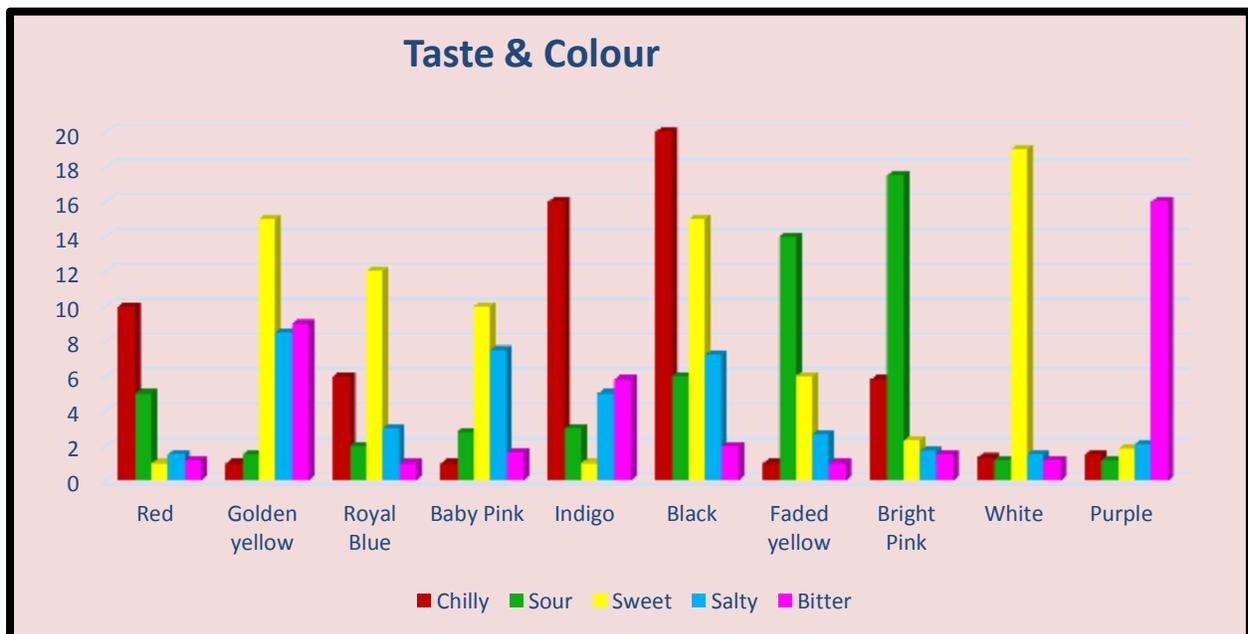


Chart 08

Experimental Approach:

For confirmation of effects of colour on human nature, we are taking 20 peoples as control and put them in a coloured atmosphere for 15 days different to their preferable colors. As a result, after 15 days, we observe a marked change in their mental plane as well as physical plane also.

- ❖ Blue and light green showing a marked decrease in the blood glucose level in NIDDM patients (Chart 09)
- ❖ Yellow and bright blue showing marked improvement in the patients with depression and
- ❖ Orange colour is showing impressive results in the patients with hypertension (Chart 10).
- ❖ Red colour pour a considerable amount of life energy in the broken up patients.

Effect of Colors on the patients with DM-II:

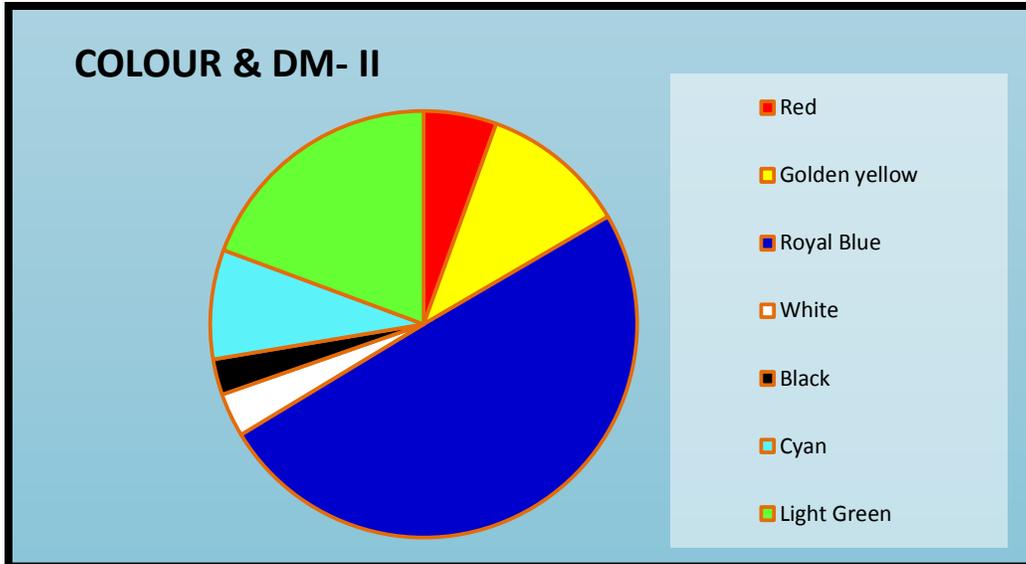


Chart 09

Effect of Colors on the patients with HTN:

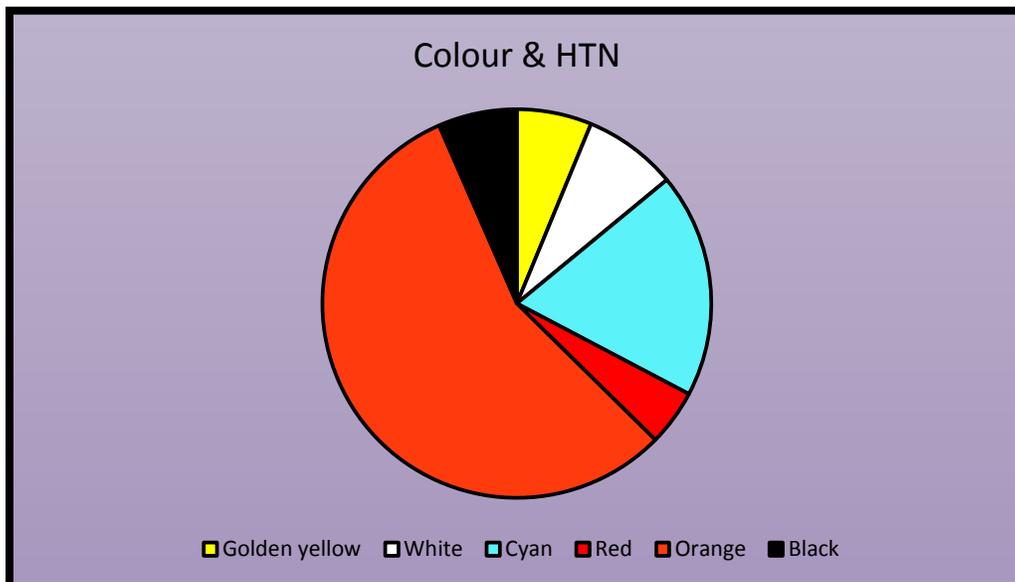


Chart 10

Relation of colors and sound:

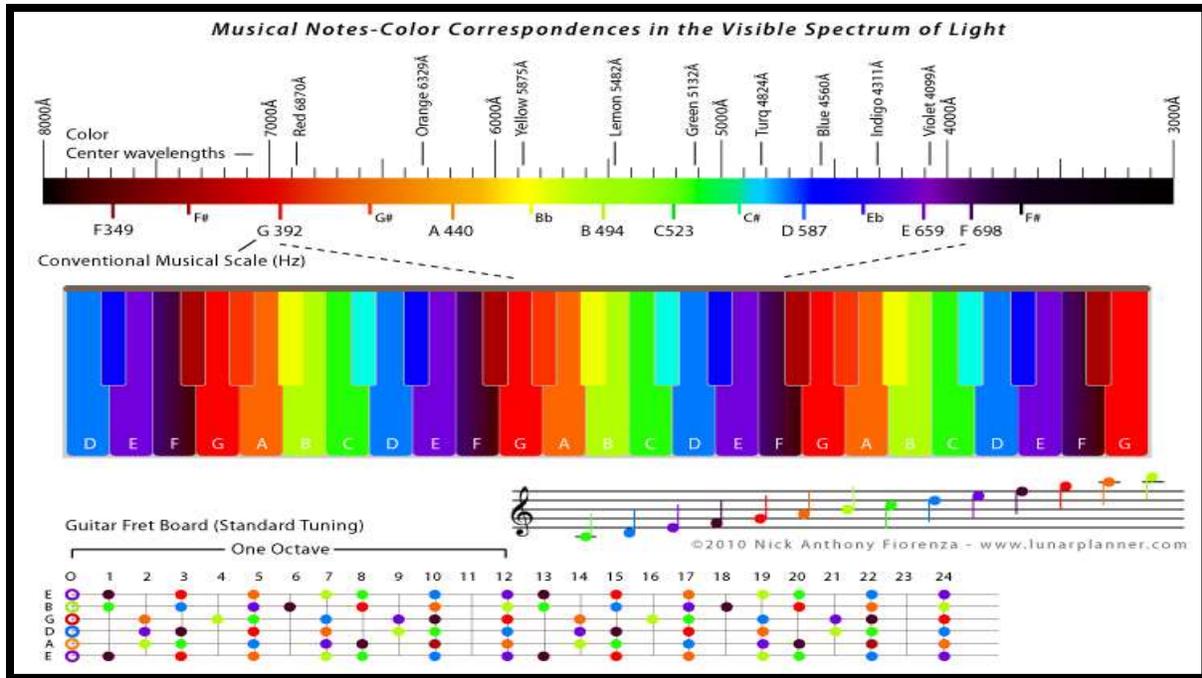


Chart 11

Colour, which is related to the visible light and sound both are energy in nature. Now, the matter of discussion is the octave of visible light, which the human eye sees and its relation to the sound heard by human ear. The octave of visible light extending from the colour red to the colour violet is 40 octaves higher than the middle audio octave. However,

light is measured by its wave length and sound by its frequency. Frequency is a measure of how many waves occur in a given moment of time. Frequency is commonly measured by the unit Hertz and 1 Hz= 1 cycle/second. If we have to raise Middle C of Piano, which has the frequency of approx. 523 Hz, by 40 octaves. A higher frequency means that, there are more waves occurring in a given amount of time, (12) thus the waves become shorter as the frequency become higher. We can see from the above drawn chart that, there are different scales can be found throughout the colour bar, in a cyclical manner. So, there is an unavoidable relationship between these two energies.

Conversion of Frequency to Wavelength:

$$\lambda = \frac{c}{f} \quad [c: \text{speed of light, } f: \text{frequency, } \lambda: \text{wavelength}]$$

or,  $\lambda f = c$

$$\text{or, } f = \frac{c}{\lambda}$$

Colour, Sound and Alpha wave of brain:

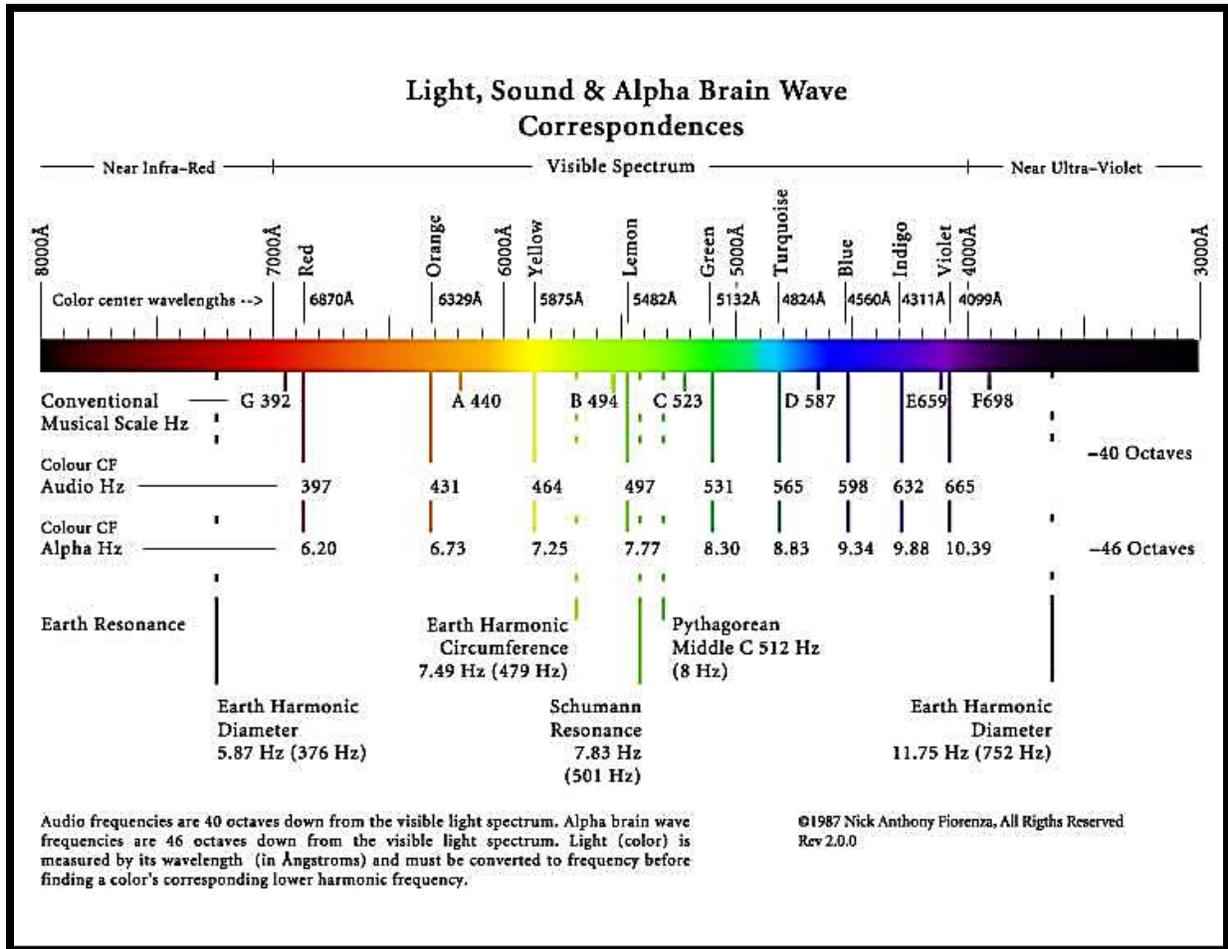


Chart 12

**Discussion:-**

From this study, we can say that colour preference is such a parameter, which generally we think consciously controlled by us, but it is a subconscious entity. Our nature, habit, lifestyle, genetic predispositions, mode of thinking, mental and physical states, all are inevitably related with preference of colour. For that reason, change in the mental state is closely associated with the preference of colour. That is why from the preference of colour of a particular person we can judge his mental state, physical state, habit and life style. Our mind is attracted by the particular colour automatically, identical to a particular mental state and therefore is useful to identify the deviation or status of their mental state, which may or may not be pathological. Preference of colour is also related with our taste preferences. As a sequence, these mental states and physical desire can be related with several pathological conditions like Diabetic Mellitus type – II, Alzheimer’s disease, Multiple Personality Disorder, Irritable bowel syndrome, Hypertension etc. For the purpose of confirmation, we put a group of people in a coloured atmosphere absolutely different from their preference and after one month of study, their mental states and desires become changed, identical to the particular colour in which they are live. As chart 12 shows the frequency of Alpha wave produced by a particular colour within our brain but surprisingly that particular frequency of alpha wave attracts our mind to that particular colour, that is why we prefer that particular colour, in that particular time. In this modern civilization, when the society is going to be submerged under the dump of diseases, our mental health is rapidly deteriorating and aggression, addiction, depression, arrogance, jealousy, superiority complexes grasp our environment in the speed of light. In this situation, when we think ourselves as individual entities of nature and ignoring the social health, it is necessary to observe each minutest deviation of health and try to correct those from their roots, otherwise we may unable to save our earth. We have to keep this in our mind that, this nature or environment is running on the basis of interrelationship between the components of nature. There is nothing, which can be considered as important or less important. If we continue our arrogant nature by avoiding basic parameters

biasedly and ruin all the point of views with our partially correct understandings, then we are going to be responsible for those irreversible damages in recent future. We may classify our body under several 'logies', but it should be bourn in our mind that, all are interconnected with each other. As mental states are very much tough to understand, difficult to explain materialistically, so blindly we ignore that from our consideration. This biased nature of us is the principal matter of worry. We cannot ignore the role of colors, because it is related with us unavoidably.

How individualistic approaches affect the entire society:

There are two different perspectives observed regarding individualistic approaches. Thinking and behaviour of an individual can stand for the betterment of the society and can harm the social health in a similar manner, depending upon the type of stimulus. It is very unfortunate that, bad impulses affect the society more than 30 times in comparison to the good impulses. For that reason, it is our duty to correct the social health by correcting the habits, thoughts and lifestyles individually with great care.

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