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EFFECT OF PLACEBO ON DEPRESSION

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ABSTRACT: Depression is a well defined mood disorder which is characterized by state of disposition of mind and dislike or antipathy to activity that can affect an individual's thoughts, demeanor, sense of emotional touch and physical well- being. Depressed people may feel mournful, troubled, uneasy in mind, meaningless, helpless and unworthy, experiencing as if having committed an offence. They are easily annoyed and disinclined to rest. It is a very important public health problem which is devastating millions of life all over world and making the scenario very pathetic. Number of the patients is suffering with psycho-somatic disorders where placebo and psycho therapies work well. Efficacy of placebo on depression due to vague reasons and with vague symptoms is significant and wonderful. It comes through exchange of belief and trust between patient and physician. Placebo response can be vividly observed and measured. Therefore, by applying placebo therapy in genuine cases of aforesaid type of depression, one can be saved from side effects of drugs and un-necessary expenditure as well.

INTRODUCTION: Depression produces serious emotional and psychological disorders and has severe consequences if not managed at proper time .With the progression of emotional load of depression one is unable to cope up with the extreme negative feelings and tend to create the world of their own thoughts which may end with the end of one's life. Whatever forms of symptoms may be related to the grief, depression is far different from normal sadness in that it engulfs our day-to-day life interfering with ability to work, study, eat, sleep, and having fun. A number of attempts have been made to highlight incidence and prevalence of depression in the community.

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A study reported by BioMed Central [1] claimed that approximately 121 million people are suffering from depression all over the world out of which approximately 850,000 people commit suicide every year. Also people in higher income group were more prone to be depressed than the people under the lower income group category.

World Health Organization W.H.O. (Mental Health and Substance Abuse; Facts & Figures) reported that 15% of depressed persons end their lives in the form of suicide at younger age [2]. Tendency of developing suicidal behaviour among the depressed persons is very lethal entangled condition. People who have an impulsive desire to die or perceive suicidal thoughts are very risky. Simultaneously there are many depressed persons who do not have suicidal plan but they prefer to die through some sudden severely fatal medically induced diseases.

Several researches have proved that depression tends to cluster and run in families. Surveys

conducted in the general population and among the families of affected persons have shown that parents, siblings and children of severely depressed patients have a 10-15% risk for depression as against 1-2% in the general population. Children of depressed parents are especially at high risk; up to 50-75% of children are likely to get depression, if both parents are suffering from depression. Early identification of children at risk is thus important. Genetic factors, however, do play a role in some, but not in all patients, since depression also occurs among individuals with no family history of depression.

Genetic or chromosomal markers are yet to be discovered for making any accurate predictions. It is expected that molecular genetics may identify specific defects in the brain that cause either spontaneous disturbances of mood or a vulnerability to decompensate under stress.

Placebo is a pharmacologically neutral substance in the form of liquid, solid or powder which is given to patient to produce effect like by medicines.

Beecher started a wave of studies aimed at understanding how something (improvement in health) could be produced by nothing (the inactive placebo). Unfortunately, many of the studies have not been of particularly high quality and have assumed that any measured improvement was caused by the placebo. In fact, it has been argued by Kienle and Kiene [3] that, contrary to what Beecher claimed, a reanalysis of his data found "no evidence of any placebo effect in any of the studies cited by him." The reported improvements in heath were real but were due to other things that produced "false impressions of placebo effects." The reanalysis of Beecher's data claims that the improvements were due to:

Spontaneous improvement, fluctuation of symptoms, regression to the mean, additional treatment, conditional switching of placebo treatment, scaling bias, irrelevant response variables, answers of politeness, experimental subordination, conditioned answers, neurotic or psychotic misjudgment, psychosomatic phenomena, misquotation, etc.

What the reanalysis shows is that there are a number of factors that can affect many treatments and the evaluation of those treatments, making it very difficult to be sure just what it is about an intervention that produces improvement or perceived improvement. We must also consider "artifacts such as the natural history of a disease (that is, the tendency for people to get better or worse during the course of an illness irrespective of any treatment at all), the fact that people behave differently when they are participating in an experiment than when they are not, a desire to please the experimental staff by providing socially desirable answers [4] (Bausell 2007: 27), and a host of other factors unrelated to the pill we are administering and independently of any mechanism that we believe is producing any observed effects.

The placebo effect is the measurable, observable, or felt improvement in health or behavior not attributable to a medication or invasive treatment that has been administered. The placebo effect is not mind over matter; it is *not* mind-body medicine. 'The placebo effect' has become a catchall term for a positive change in health *not attributable to medication or treatment.* As is explained below, the change can be due to many things, such as regression to the mean, spontaneous improvement, reduction of stress, misdiagnosis in the first place, subject expectancy, classical conditioning, etc.

Depressed individuals have well thought justification for their thinking. Occurrence of any event does not affect with the equal intensity to everyone rather it is experienced on different levels and intensities. Human mind is an incredible, unique creation and full of various peculiarities. The thought pattern and reaction to the specific situation and stimuli encountered by the persons in routine life and on specific occasions, represents the inner mind structure and personality of an individual [5].

Even very dynamic and optimistic persons famous for their constructive creativity are found depressed and even seen committing suicide. It reflects that apart from a general established life on many occasions' people encounter certain severely intense setback which disturbs the normal cognitive pattern of the individual and the person gets

encapsulated into the envelop of pessimistic thought pattern. Certain characteristics which an individual inherits through the genes of their parents also affect thought pattern and reflect their effect into the form of specific behaviours [6]. Majority of the homoeopathic medicines have large number of symptoms related to the concerned organ systems of medicine. Simultaneously these effects vary in different modes upon different individuals. Some of the medicines are effective on specific body constitutions and mental temperaments. Thus while prescribing a most similar one medicine to a patient, a qualified homoeopathic physician has to evaluate multi-dimensional approach including modalities and occurrence of symptoms in context to different factors.

MATERIALS AND METHODS:

Locale of the study:

The study was conducted in district Sagar of Madhya Pradesh, India since May2007 to January 2008 and thereafter in Allahabad, U.P. India, since February 2008 to 2012.

Sagar has a population of 2,378,295 (according to census report of 2011) and has a population density of 232 inhabitants per square kilometre. This city has a sex ratio of 896 females for every 1000 males and a literacy rate of 77.52%.Sagar lies in an extensive plain broken by low, forested hills and watered by Sonar River. Wheat, chickpeas, soghum, and oilseeds are chief crops of the region, there is extensive cattle raising. Sandstone, Limestone, iron ore and asbestos deposits are worked. Allahabad is located on the confluence of holy rivers Ganga, Yamuna and Saraswati.

It is located in the southern part of Uttar Pradesh, at 25.45 North and 81.84 East. According to Census 2011, Allahabad district has a population of 59, 59, 798 including 31, 33, 421 males and 28, 26, 319 females. Allahabad has a population density of 1,087 per square kilometre and has a sex ratio of 902 females for every 1000 males. Literacy rate of Allahabad is 74.41%. The main industries of Allahabad are tourism, fishing and agriculture. Allahabad city is the largest commercial centre in the state; it also has the second-highest per capita income and the third greatest GDP in the U.P.

Research Design:

To facilitate the fulfilment of objectives of the research, the experimental as well as descriptive research designs have been followed in the investigation.

In order to determine the profile of respondents, first, an attempt was made to describe aetiological, sociological and psychological characteristic of the respondents through detailed case studies. Secondly, was to find out the depressive tendency to establish assessment and the effect of Homoeopathic medicines at individual level and as combined regimen of the duo as well as effect of placebo therapy on the depressive respondents.. The depressive tendency experiment used the Depression Scale decided by the score of questionnaire designed and given to the patient to determine the degree of depression.

Selection of Sample:

The subjects who volunteered to participate in this study were selected from OPD centres of Sagar Homoeopathic Medical College and Hospital, Sagar- M.P and some Homoeopathic Centres in Allahabad. The patients were selected on the outreach basis and approximately 20 % of the total O.P.D. attendance related to psychological, psychosomatic/somatopsychic disorders in a month. Certain criterion in the mind were kept regarding preference for selection of the patients e.g. cooperative in nature, willing to visit for follow up regularly, belonging mild and moderate to severe degree of depression etc.

Patients belonging to very severe degree of depression and having manic tendency were not included. Degree of depression was decided after the filling of questionnaire given to the patient by researcher and scoring the number by scored the patients. All this was drawn from the first level ‘visiting up’ patients to the hospital for the treatment. Only those patients were included who belonged to different SES (Socio Economic Status) and above High School-Education.

Development of data gathering instrument:

A suitable questionnaire was developed as well as following interview was developed in the light of objectives. The questionnaire was designed to elicit

the following kinds of information about the respondent and his problem-

1. General information
2. Aetiological, Psychological and Socio-economical relationship with depression.
3. Metabolic and endocrine disorders, Mood disorders.

Methods of Data collection:

1. Primary source- Such information were collected by personally interviewing the patient at OPD centres of homoeopathic clinics through the case taking process.
2. Secondary sources- Some of the information which patient didn't provide, were obtained through other reliable sources.
3. Instruments – Case taking Pro forma, questionnaire sheet, Homoeopathic repertories, homoeopathic software, Sphygmomanometer, Stethoscope, Torch, weighing machine, Tendon hammer.
4. Statistical analysis of data- It included pretesting of interview schedule, data collection, tabulation, analysis and interpretation of data through statistical tools as per nature and requirements of Data such as descriptive and inferential statistic were applied for drawing valid explanation.
5. For the follow up purposes the patients were called after every 10 days interval and the assessment of their health and complaints was done on the visit to the clinic. On the basis of the existing physical and mental symptoms and the progress of the patients, further treatment plan was decided. Maximum total duration of the treatment was 6 months. Separate groups were called on separate turns. Selection of placebo medicines was done according to the principles of homoeopathic philosophy and most similar remedy was prescribed with the aid of various Homoeopathic Repertories and after detailed case taking.

Post Test Trials Data collection and clinical treatment:

Patient's visit was called once within 10 days for the treatment. Each group was given covered treatment regimen individually; one group was given treatment on one day. The next day other group would receive the treatment. After giving the required treatment the patients were called after every ten days, where the required treatment regimen was given and observation was recorded. The treatment procedure continued up to six months.

The instruments used for the purpose of research study were questionnaire consisting of score calculation system, Sphygmomanometer, Stethoscope, Small torch, Thermometer, Dr. Kent's and few other Homoeopathic Repertories, Homoeopathic Materia Medica by some eminent authors e.g. Dr. William Boericke-Pocket Manual of Homoeopathic Materia Medica, A Dictionary of Practical Materia Medica by Dr. J.H. Clarke etc. including Case taking format. Placebo medicines given to the patients was in the form of globules and liquid.

RESULT AND DISCUSSION:

TABLE 1: TABLE SHOWING OCCURRENCE OF DEPRESSION ON THE BASIS OF AETIOLOGICAL INCIDENCE

Cause	Frequency	Percentage
Emotional	116	55.77
Financial	28	13.46
Grief	49	23.56
Miscellaneous	15	7.21
Total	208	100.00

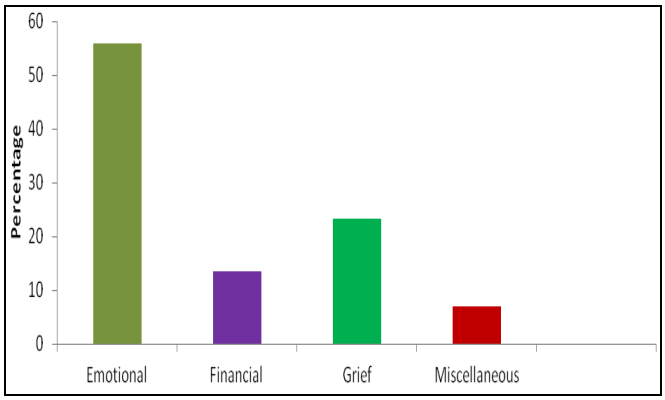

FIGURE: 1 OCCURRENCE OF DEPRESSION ON THE BASIS OF AETIOLOGICAL INCIDENCE

Table 1 and Figure 1 represents the various data of the respondents related to the aetiological factor of Depression in the study. It had been found that the frequency of respondents belonging to age group 16-20 is 18.27%. The major causes behind

the adolescent depression had been found e.g. Genetic, Biological, Deficits of social skills, Not properly supervised by their parents, Negative relationship with their parents, History of sexual abuse, difficulty in establishing self identity, low self steam, poor performance in academics, matters related to peer groups, substance abuse, and failure in love affairs etc.

Maximum frequency was found between the age group of 20-40. The important causes for the age group 20-40 had been found extremely cut- throat competitive environment for employment and higher studies, examination results, life style, increasing tension and decreasing tolerance and patience level, disturbed family history and environment, stress due to personal relationship, financial problems of parents, peer pressure and various social restrictions, lack of suitable job and financial facility, home sickness and adjustment disorders etc.

The causes behind the depression for age group between 40-60 were chronic disease especially when there is impairment of function of any body system, genetic factors, disturbed marital history, loss of some most beloved one and unbearable psychological pain, loss of employment, Heavy financial loss, disturbed inter personal relations, frustration and hopelessness, worry related to children and post traumatic stress etc.

TABLE 2: FINANCIAL STATUS OF RESPONDENTS

Socio economic status	Frequency	Percentage
HIG	47	18.75
MIG	98	39.44
LIG	63	30.76
Total	208	100

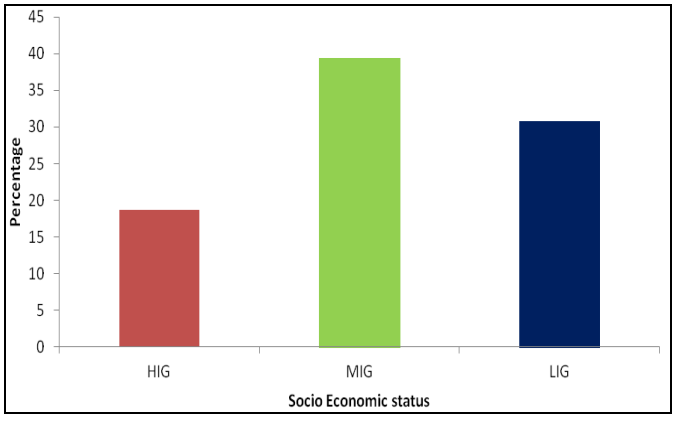

FIGURE: 2 FINANCIAL STATUS OF RESPONDENTS

The **Table 2 and Figure 2** shows reflects the frequency of prevalence of depression on the respondents of different income groups. Major depression was due to lifestyle that people were subjected to. The constant feeling of being part of a 'rat race' sapped the energy and enthusiasm out of them. Depression could be triggered by day-to-day problems such as relationship stress and work related hassles. Interestingly, depression affected the higher income group more. Experts were of the opinion that rising income levels in India and the anxieties that it brought with it were the major factors leading to major depressive episodes. Individuals were constantly reeling under the preconceived threat of losing all that they had acquired; be it their loved ones or their career. Indians were slowly getting acclimatised to uniquely western concepts such as the nuclear family. With no support system to fall back on and social networking sites alarming cutting off individuals from real life interactions, depression was a malaise that is slowly crippling the psyche of a number of modern day Indians.

TABLE 3: LOCALITY WISE DISTRIBUTION OF THE RESPONDENTS

Type of locality	Frequency	Percentage
Urban	147	70.67
Rural	61	29.33
Total	208	100

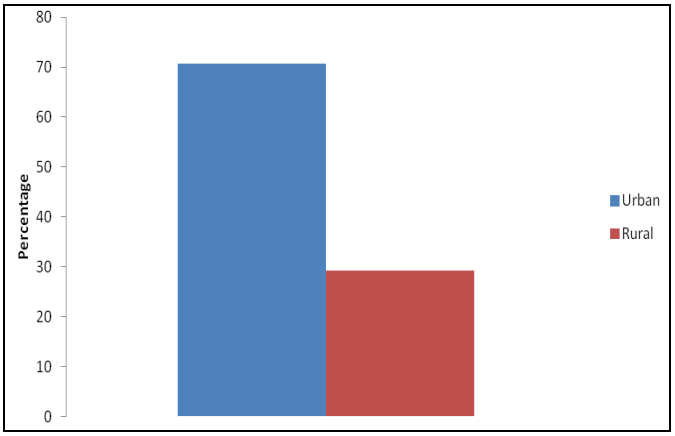

FIGURE: 3 LOCALITY WISE DISTRIBUTION OF THE RESPONDENTS

Table 3 and Figure 3 shows that depression was common among urban gentry than rural population. The reason may be stress full life style, staying away from home, extreme competitive environment, financial crisis, and lack of time for family, uncomfortable relations between spouse,

water and electricity scarcity, traffic problems, environmental pollutions, accidents, lack of good schooling, staying away of the children from families especially the girls were factors causing depression.

TABLE 4: SEX WISE DISTRIBUTION OF RESPONDENTS

Gender	Locality urban frequency (Percentage)	Locality rural frequency (Percentage)	Total (Percentage)
Male	53 (65.43%)	28 (34.57%)	81 (100%)
Female	94 (74.01%)	33 (25.99%)	127 (100%)
Total	147 (70.68%)	61 (29.32%)	208 (100%)

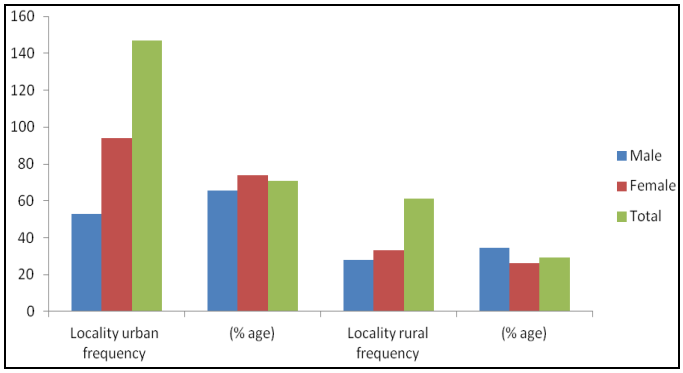

FIGURE: 4 SEX WISE DISTRIBUTION OF RESPONDENTS

The above **table 4** and **figure 4** confirms that the ratio of development of depression was more among females as compared to males. This finding also corroborates with the previous result. Depression in women was higher as that was in men. This is due in part to hormonal factors, particularly when it comes to premenstrual syndrome (PMS), Premenstrual Dysphoric Disorder (PMDD), postpartum depression and menopausal depression. As for signs and sleep excessively, overeating, and gain of weight. Women are also more likely to suffer from seasonal affective disorder.

Some depressed teens appeared sad while others did not. In fact, irritability rather than depression was frequently the predominant symptom in depressed adolescent and teens. A depressed teenager might be hostile, grumpy, or easily looses his or her temper. Unexplained aches and pains were also common symptoms of depression in young people.

Left untreated, teen depression could lead to problems at home and school, drug abuse, self-loathing even irreversible tragedy such as homicidal violence or suicide. But with help, teenage depression was highly treatable.

The difficult changes that many older adults faced such as bereavement, loss of independence, and health problems- could lead to depression, especially in those without a strong support system. However, depression was not a normal part of aging. Older adults tended to complain more about the physical rather than the emotional signs and symptoms of depression, and so the problem often went unrecognized. Depression in older adults was associated with poor health, a high mortality rate, and an increased risk of suicide, so diagnosis and treatment were extremely important.

TABLE 5: FAMILY SIZE WISE DISTRIBUTION OF THE RESPONDENTS

Family Size(number of members)	Frequency	Percentage
1-4	117	56.25
5-8	64	30.77
More than 8	27	12.98
total	208	100.00

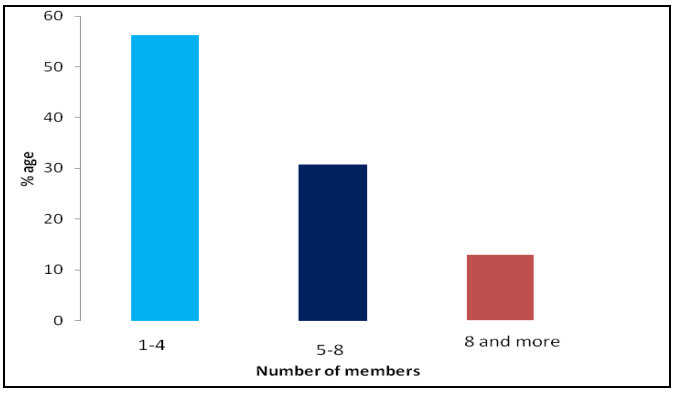

FIGURE: 5 FAMILY SIZE WISE DISTRIBUTION OF THE RESPONDENTS

X^2 calculated =1.75; X^2 tabulted= 3.84; df= 1

The calculated value (X^2 calculated =1.75) is less than the tabulated value (X^2 tabulted= 3.84) at 0.05 level of significant, therefore it is concluded that there have any difference between male and female respondents as well as residence of the respondents regarding CBT.

Table 5 and Figure 6 represents the prevalence rate of depression on the basis of gender. It was found that the frequency of occurrence among female was much greater in comparison to the

males. Women residing in urban region were more prone to depression than among those of rural territory. The reason behind was the women in urban region were academically stronger and more conscious about the establishment of their self identity in the society. They were more prone to become frustrated.

The reason behind greater susceptibility of females to the depression were marriage, separation and divorce, illiteracy and unemployment, neglected by family especially by husband, domestic violence, corporal and mental torture, financial crisis in family, being alcohol or drug abuse of husband, loss of child, infertility and sterility, unwanted pregnancy and sexual assault, excess number of girl child, widowhood, disease, hormonal changes especially during peri-menstrual and menopause durations, load of domestic works, family and social restrictions. The multiple roles that they had to fulfil in society made them prone at greater risk of experiencing mental problems than males in the society. Women shouldered the major burden part of responsibility associated with being wives, mothers and carers of others. There had been tremendous increase in share of employment opportunities among women hence; increasing extra load of responsibilities also made them susceptible for depression.

TABLE 6: FAMILY TYPE WISE DISTRIBUTION OF THE RESPONDENTS

Type of family	Frequency	Percentage
Nuclear	141	67.78
Extended	67	32.22
Total	208	100

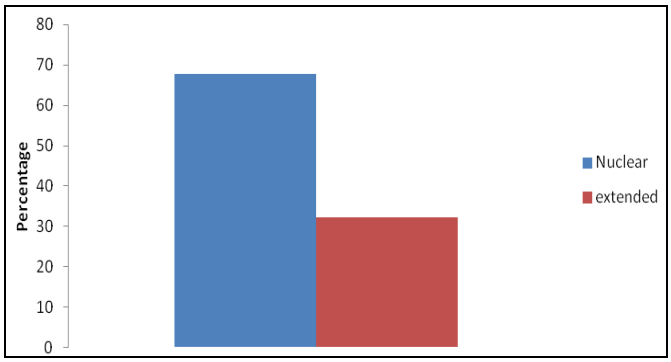

FIGURE: 6 FAMILY TYPE WISE DISTRIBUTION OF THE RESPONDENTS

Table 6 and Figure 6 shows the maximum prevalence of depression among the people residing in nuclear family. Rapid growing urbanization and industrialization is causing rapid growth of the nuclear family system in the society which also causes deficiency in the support and care for the elderly in the family and preparing platform for the depression. It also minimizes the chance of interaction between elders and children. The life style of the urban nuclear family has become very fast and the parents have to go for work for a longer duration and the children are deprived of their important association and its benefits. Without grandparents children feel neglected and often the psychological problems begin at this juncture. An extended family situation is better than a nuclear family, but a nuclear family is far better than a single parent household.

In conclusion the stresses created by situation all parental responsibility on one man and one woman can cause many problems that are prevalent in today's society. Extended families give greater flexibility and a larger support network for all involved.

TABLE 7: FREQUENCY OF DEPRESSION IN HEREDITARY AND NON-HEREDITARY RESPONDENTS

Frequency with family history of depression	Frequency without family history of depression
74 (35.58 %)	134 (64.42%)

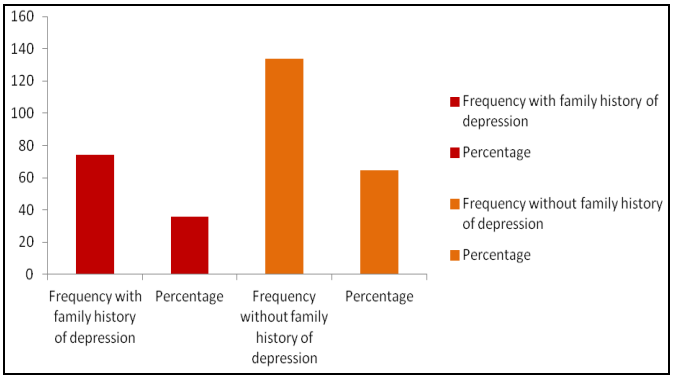

FIGURE: 7 FREQUENCY OF DEPRESSION IN HEREDITARY AND NON-HEREDITARY RESPONDENTS

The present study has revealed that 35.57% of respondents had family history of some depressive episode and remaining 64.43% had no family history but were depressed due to various other causes. It reflects that besides genetic factors, lots of other factors were triggering depression.

TABLE 8: SCORE WISE DATA OBTAINED THROUGH THE QUESTIONNAIRE (PRE AND POST TEST)

Score group	Degree of depression	Pre test frequency	Percentage	Post test frequency	Percentage
0-9	Depression likely	5	2.40	0	0
10-17	Possibly mild	9	4.33	0	0
18-21	Border line	32	15.38	10	4.80
22-35	Mild to moderate	83	39.90	24	11.53
36-53	Moderate to severe	49	23.56	19	9.13
54 and above	Very Severely depressed	30	14.43	13	6.25

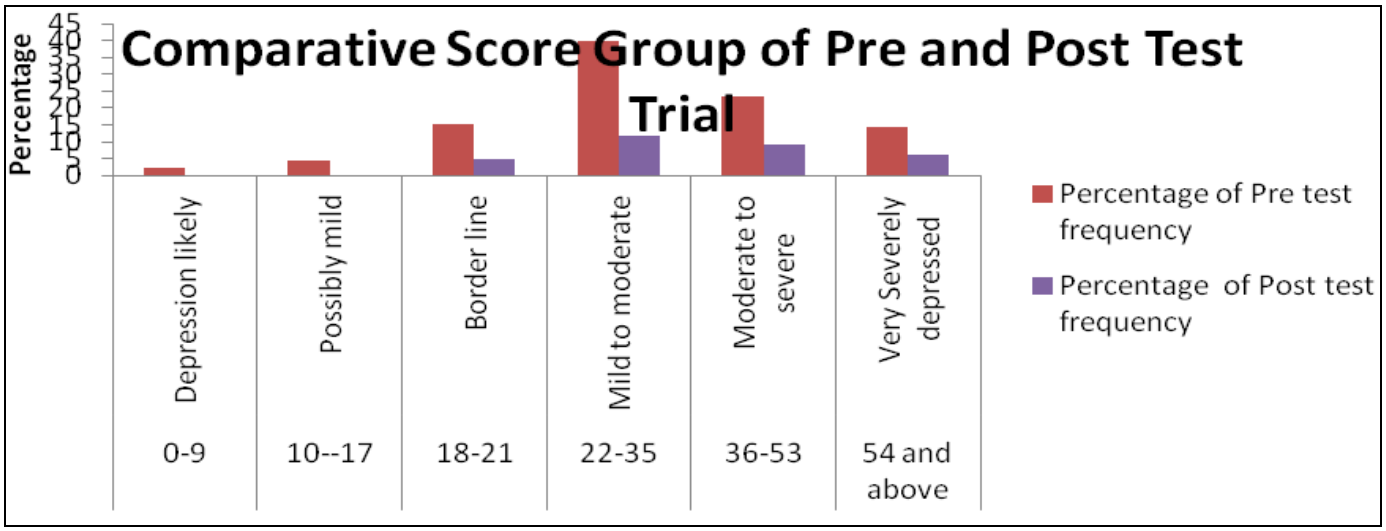

FIGURE: 8 SCORE WISE DATA OBTAINED THROUGH THE QUESTIONNAIRE (PRE AND POST TEST)

t-TEST: TWO-SAMPLE ASSUMING UNEQUAL VARIANCES

	Variable 1	Variable 2
Mean	34.66666667	11
Variance	821.8666667	96
Observations	6	6
Hypothesized Mean Difference	0	
df	6	
t Stat	1.913475562	
P(T<=t) one-tail	0.052102273	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.104204546	
t Critical two-tail	2.446911846	

The result of the dependent t-test can be seen in the above table. The value of t (t Stat) is 1.913475 which can be round off to 1.92. The probability of this result being due to chance can be read from the table as 0.1042045 (two-tail) which means that this result is significant at the 0.11 level.

We will set our alpha level as .05, so we will say that p < .05 rather than that p = 0.11 We could also look up the t critical value or cut-off value for t from the table by looking at t Critical one-tail which is 2.4469 without using the spreadsheet. We now have all the information we need to complete the six step statistical inference process:

State the null hypothesis and the alternative hypothesis based on your research question: Null hypothesis: There is no significant difference between the heights of the two samples of snail shells.

Alternative hypothesis: There is a significant difference between the heights of the two samples of snail shell.

Set the critical P level (also called the alpha level) P=0.05

Calculate the value of the appropriate statistic. Also indicate the degrees of freedom for the statistical test if necessary:

t=1.91
df = 06 (unpaired, unequal sample variance)

Write the decision rule for rejecting the null hypothesis:

Reject null hypothesis since t is <= -2.4496

Write a summary statement based on the decision:
Reject null hypothesis, p < .05, two-tailed

Write a statement of results:
There is a significant difference between the pre test and post frequencies. Post test frequencies are much more significant as compared to the pre-test frequencies. Therefore we can conclude from the above t-test that the patients with mild to moderate degree of depression were benefitted significantly.

Table 8 and Figure 8 shows the comparative feature of score of depression calculated on the basis of questionnaire of pre and post test status. Respondents falling in the score group 0-9 & 10-17 have responded excellent. Score group between 18-21 and 22-35 responded good whereas respondents of score group 36-53 had shown moderate response and the score group 54 and above only mild improvement was noted. It denotes that depression of mild and borderline nature responded in excellent way while moderate degree of depression gives good response. Moderate to severe degree depression responds moderately while those falling in severe depression category do not show desired result but improve significantly.

TABLE 9: RESPONSE OF PLACEBO THERAPY ON DEPRESSION IN DIFFERENT AGE GROUP

Age group in year	Frequency	Good improvement	%	Moderate improvement	%	Mild/No improvement	%
16-20	10	3	30	2	20	5	50
20-40	14	4	28.57	2	14.28	8	57.15
40-60	28	5	17.86	6	21.43	17	60.71

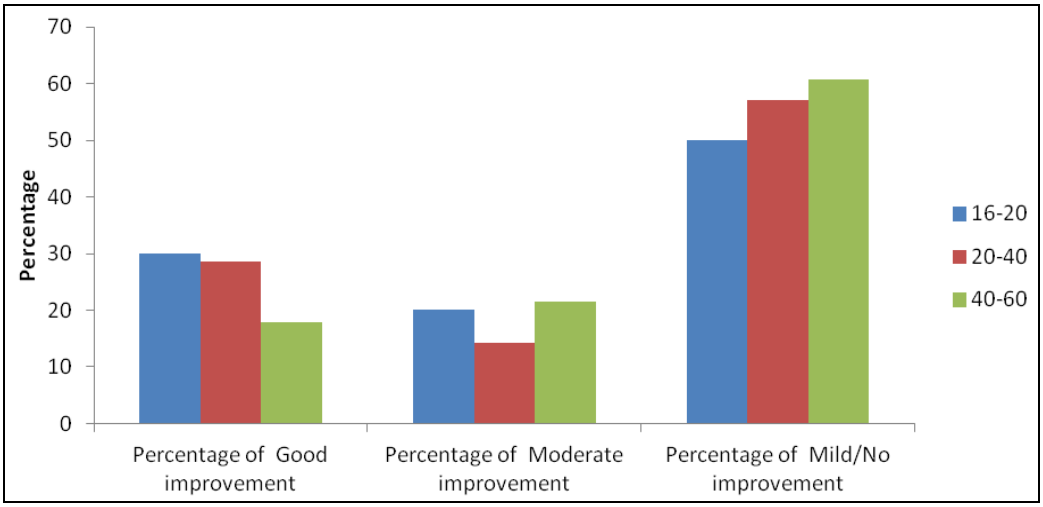

FIGURE: 9 RESPONSE OF PLACEBO THERAPY ON DEPRESSION IN DIFFERENT AGE GROUP

X^2 calculated= 3.33; X^2 tabulted= 9.49; df=4

The calculated value (X^2 calculated= 3.33) is less than the tabulated value (X^2 tabulted= 9.49) at 0.05 level of significant. Therefore it is concluded that the response of PLACEBO Therapy on depression in different age group have not statistically different. It means use of PLACEBO Therapy on depression had equal improvement on the different age group.

Table 9 and Figure 9 shows information regarding the effect of placebo therapy. More than half of the patients responded to placebo therapy. A patient's faith in the physician's treatment and the globules/ liquids given as placebo, response is dependent upon a variety of factors. These include relationship between physician and patients, faith of patient in the physician, sympathetic attitude, sincerity toward the patient, are associated with development of positive effects of placebos among

the patients. Depressed patients are loaded with variety of subjective complaints and uneasiness in mind. When they find a treatment, their belief that medicine will work and provide them relief, allows their mind to be at ease and disappearing of symptoms related to psychic disturbances. Thus the patient felt well and relief from symptoms of depression.

DISCUSSION: There are certain events in the daily life of almost every one that make them feel sad or disappointed. These events tip emotional balance diverted towards the pessimistic world. Depression has become very common, now days. Feeling down from time to time is a routine part of our normal life. But when these negative feelings hold their roots strongly on the mental faculty of any one, life becomes painful and starts engulfing ones day to day life. Sadness is a normal reaction to life's struggles, setbacks and disappointments. Depression varies from person to person, but there are some common signs and symptoms which are resent with almost every one suffering from depression. Depression is more common among women than men. This is due in part to hormonal factors, particularly when it comes to premenstrual syndrome (PMS), premenstrual Dysphoric disorder (PMDD), postpartum depression, and premenopausal depression.

The major findings of the study are summarized as infra-

After the statistical analysis of the data, it has been confirmed that the various aetiologies play their role behind development of depression. Out of 208 respondents 116 suffered with depression due to emotional causes, 28 due to financial crisis, 49 because of some tragedy resulting into grief, and 15 suffered with some other miscellaneous factors. It had been found that number of women was 127 (61%) while men were 81(39%). Maximum frequency was found among the respondents of age group of 20-40 years (41.35%). Reasons behind were extremely cut- throat competitive environment for employment and higher studies, examination results, life style, increasing tension and decreasing tolerance and patience level, disturbed family history and environment, stress due to personal relationship, financial problems in family, peer pressure and various social restrictions, lack of suitable job and financial resources, home sickness and adjustment disorders etc. On the second position was the age group of 41-60 years (40.38%) and the reason behind them were chronic disease especially when there is impairment of function of any body system, genetic factors, disturbed marital history, loss of some most beloved one and unbearable psychological pain, loss of employment, Heavy financial loss, disturbed inter personal relations, frustration and hopelessness, worry related to children and post traumatic stress etc. The prevalence of depression among adolescents of age group 16-19 years was 18.27%. The major causes were genetic inheritance, Biological, social disorders, lack/ disordered parental care and development of weaker bonds with parents, sexual abuse, failure in establishing self identity in society, poor academic performances, peer pressure and substance abuse etc.

CONCLUSION: 64.42% respondents had no prior family history of depression while 35.58% had positive family history of past association with depression. It confirms that although genetic factor is an important factor in the genesis of depression but non genetic factors are also very responsible to cause depression. Prevalence of depression among nuclear families was67.78% while in joint/ extended family was 32.22% only. Family size of 1-4 members had prevalence of 56.25%, 5-8 30.77% while families having more than 8 members had depression frequency of onlyn12.98%. Prevalence of depression among urban regions was 70.67% while that of rural areas was only 29.33%. Respondents belonging to higher socioeconomic status were 18.75%, medium socioeconomic status were 39.44% while those of lower socioeconomic background were 30.76%.

According to the statistical analysis it has been proved that the patients receiving the placebo medicines were significantly benefited. Therefore we can conclude that placebo therapy plays a crucial and beneficial role to the depressed people.

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