



A Study of Depression in relation to Locus Of Control and Mindfulness

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Introduction:

Now a days depression is most common in people and is regarded as one of the disorders that happen at highest rate. Depression happens with many other types of disorders. **Depression** is regarded as a state in which a person feels low and develop aversion to activity which can affect a person's thoughts, behaviour, feeling and a sense of wellbeing. Depressed people may experience sad, anxious, empty, hopelessness, and worthlessness. They may lose interest in activities that once was pleased, and experience loss of appetite or overacting. It is not necessary to form a psychological disorder but can be a normal reaction to certain life events. **According to APA(2013)** " People with depression may experience lack of interest in pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feeling of worthlessness, and thoughts if suicide . " **According to Aaron Beck (1996)** "Depression is the result of faulty or maladaptive cognitive processes." The emotional and physical symptoms are a consequence of the thinking patterns that Beck assumes to be the cause of the disorder. **DSM IV –TR (2000)** has defined depression is defined under mood disorders as "Major depressive disorder in which the individual received the diagnosis must be markedly depressed for most of every day and for most days for a last two weeks". But in **DSM V (2013)** has defined as "Depressive Disorder include disruptive mood dysregulation disorder, major depressive disorder (including major depressive episode), persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, substance/medication-induced depressive disorder, depressive disorder due to another medical condition, other specified depressive disorder, and unspecified depressive disorder." **Unlike in DSM-IV, in DSM V (2013)** "Depressive Disorders has been separated from Bipolar and Related Disorders and the common feature of all of these disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function." There are various **types of depressive disorder** as Disruptive Mood Dysregulation Disorder Diagnostic Criteria 296.99 (F34.8), Major Depressive Disorder, Persistent Depressive Disorder (Dysthymia) Diagnostic Criteria 300.4 (F34.1), Premenstrual Dysphoric Disorder Diagnostic Criteria 625.4 (N94.3), Substance/Medication-Induced Depressive Disorder, Depressive Disorder Due to Another medical Condition, Other Specified Depressive Disorder 311 (F32.8), Unspecified Depressive Disorder 311 (F32.9), Specifiers for Depressive Disorders (DSM V, 2013)." **DSM IV Diagnostic Criteria (2000)** is that "Five or more than five symptoms have been present during 2 week period and represent a change from previous functioning: dismiss of interens, depressed most days, significant weight loss, insomnia, psychomotor agitation, fatigue, dismissed ability to concentrate, recurrent thoughts of death". Depression is caused due to various Biological Causal Factors include Genetic influence, Nurochemical Factor, Abnormality of Hormonal Regulatory



System, Neurophysiology and Neuroanatomical Influence and Sleep and Other Biological Rhythms. Psychological Casual Factors include Stressful Events and Chronic Stress, Individual Differences in Response to Stressors and Different Types of Vulnerabilities and Sociocultural Factors as Cross Cultural Differences in Symptoms and Prevalence). **According to psychodynamic theory of depression**, there are conscious as well as unconscious part of mind which cause conflict with each other, which cause Repression. And there conflicts later represent depression. But **Behavioural Theory** says that the disruptive normal behavioural which acts as a reinforcement pattern and leads to depressive episodes. There is another theory of depression which is called Interpersonal theory of depression, which states that if an individual focused on the intuitive appealing concept, event in one's psychosocial environment affects one's mood and vice-versa. When major events occur in an individual's life, they cause depression. Depression is high in females and is more prevalent in teenagers and old age group in USA (DSM, V). In 1976, Beck gave the **cognitive model of depression**. In which, depressed people have unrealistically negative ways of thinking about themselves, their experiences and their future which cause depressive symptom (negative autonomous thought). The triad involving negative thoughts about **1. The Self** 'I am a bad person', **2. Experiences** 'My life is terrible' and **3. The Future** 'Things will not improve'. Beck's theory suggests that the secondary symptoms of depression can be understood in terms of this core of negative beliefs. For example, a lack of motivation could be the result of a combination of pessimism, helplessness and hopelessness

Locus of control in the personality psychology refers when an individual expects or believes that they have an control or no control or affect or no affect over the situations or events which are happening in their life or in their environment (Rotter,1996). The concept of LOC was given by **Julian. B. Rotter** in 1954. LOC is one of the dimension of care self evaluation as neuroticism, self efficacy, self esteem and LOC (Judge, Locke & Durham,1997). In 1966, Rotter published an article in **Psychological Monographs**. In 1976, Herbert M. Lefcourt defined perceived LOC as "a generalised expectancy for internal as opposed to external control of reinforcements"(Lefcourt,1976). Another Rotter student, **William H. James** gave two types of "expectancy shifts". First one is **Typical expectancy shifts** which means "believing that success or failure would be followed by a similar outcome". And second is **Atypical expectancy shift** which means "believing that success or failure would be followed by a dissimilar outcome" (Lefcourt,1982) There are **two aspects of LOC, Internal Locus Of Control** in which an individual feels and believes that events in their life are happening or drive primarily from their own actions done in that situations and environment (Carlson, 2007). They seem to blame themselves, if any negative event or consequence happens. They also believe that their hard work would also lead them to positive outcome and negative outcome and also accept the fact that things happen and depends on them to some extent entirely (Dharni, 2002). They have a higher need for power and achievement. On the other hand, there is **External Locus Of Control** in which an individual feels and believes that events in their life are happening or drive primarily from actions of other done in that situation or environment. They seem to blame others in their life situation, if negative life consequences or event happens. They believe in fate, luck, the influence of powerful other like government, people in authority (Jacobson, Waddel & Webb,2000) and they have clinical



depression and stress (Benassi, Sweeney & Dufour, 1988).

Mindfulness is a state of active and open attention on the present and not on past and future. Whenever an individual is high on mindfulness, they can observe their own thoughts and emotions from a distance without judging them right or wrong. In this the individual lives every moment and has an awakening experience. **According to Zinn (1994)** "The practice of Mindfulness involves being aware moment-to-moment, of one's subjective conscious experience from a first-person perspective". **Brown (2000) has defined it as** "A quality of consciousness manifest in, but not isomorphic with, the activities through which it is enhanced." and **Bishop (2004) as** "A kind of nonjudgmental, present centred awareness in which each thought, feeling, or sensation that arises in the attention field is acknowledged and accepted as it is". If **history** of mindfulness can be considered then the **term mindfulness is pali-term "sati"** which is a Buddhist practice (Uppasana, Satipa Hana and An Apanasati.) It was made popular by Jon Kabat Zinn (1994) with his Mindfulness Based Stress Reduction (MBSR) Programme (Israel, 2013). The Pali-language scholar, **Thomas. W. R. Davids** (1843–1922), **who first translated sati** (1881) as English mindfulness in *sammā-sati* "Right Mindfulness; the active, watchful mind". Davids defines that "Sati is literally 'memory' but is used with reference to the constantly repeated phrase 'mindful and thoughtful' (*sato sampajāno*); and means that activity of mind and constant presence of mind which is one of the duties most frequently inculcated on the good Buddhist." **Mindfulness Movement** was started by J. Zinn in 1976 which reached many aspects of society involves schools, business, law prison programs and government. **Bishop, Lau, et al. (2004) gave the two-component model of mindfulness** as "The first component involves the **self-regulation of attention** so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in the present moment. The second component involves adopting a particular **orientation toward one's experiences** in the present moment, an orientation that is characterized by curiosity, openness, and acceptance". It is very effective in dealing with depression symptoms, reducing stress and anxiety and also in drug treatment (*Mindful Living Programs, 2014*). There is a new concept of mindful medication is widely used in which an individual's attention is on the movements of abdomen when an individual breathes in and out (Wilson, 2014).

Depression, Locus of control and Mindfulness

A study was done by Journal of Personality and Clinical Studies (1997) and showed that IPAT depressive scale was correlated but negatively related to Levenson's scale on internality and positively related to powerful other and chance dimensions. It was also seen that, in high school students who were high on depression were also high on external LOC (Journal of Social Science, 2013). Mindfulness or full attention on the present situation can help in reducing the cognitive symptoms or signs of depression (M. Tartakovsky, 2005). Many recent meta-analysis studies have found that MBCT was very successful in reducing the origin but delaying the relapses of depression (Zinn, 2000). There is a negative correlation between mindfulness and LOC as $r = -0.22$ and $p < 0.001$ (Hamarta & Erdal, et al., 2013). A study by Hafmann, Swyer was



conducted and found that mindfulness is very helpful in reducing symptoms and in treatment of chronic depressive cases (Barnhofes & Catherina, 2009). Mindfulness also helps in reducing anxiety in daily life activities or situations and anxiety disorders (European Psychotherapy, 2009).

Depression, Locus of control , Mindfulness and Gender Differences

A study was done by Bebbington (1996); Nolen & Hoeksema (1987) in which they found that women have a very high prevalence in depression than men. Even the amount of depressive episodes were almost preceded by a major events in women than men (Brown & Harris, 1978). There is gender difference in LOC in which females are high on external LOC and there is also a difference in gender in the perception of control over interpersonal relationships (Psychology and Health, 1997). Studies were done by university of Oslo in USA (2013) and concluded that females were 76% high on mindfulness. In 1997 , William did a synthesis of research and two decades on male and females and found that females were high on External LOC than males. Another pilot study was conducted by Danielle, Katz & Toner (2013) which was based n mindfulness based treatment for substance abuse and hypothesised that whether gender differences will influence the treatment and found that women were more gravitated or beneficial inthetreatment.

Depression , Locus of control , Mindfulness and Socio Economic Status

Low SES is generally associated with high level of depression of psychiatric disorder and disabilities. In American Journal of Epidemiology (2002) showed that low SES with a higher rate of depression (ratio 11.81, $p < 0.001$) the reason can be that they have poor coping skills in life to deal with stressful and problematic situation. A study by Journal of youth and Adolescence (1991) published that SES is strongly correlated to LOC. Mindfulness was seem as an affective experience in regulating emotions in low SES (Szanton, Wenzl , Connolly & Piferi, 2010). Many more studies were conducted in relation to depression, LOC and mindfulness , individually as well as in relationship between any two or all the three variables.

Statement Of The Problem

The aim of the present study was to study the relationship of Depression with LOC and Mindfulness among young adults (21 to 30 years) of high socio economic status and low socio economic status.

Hypotheses

Based on the review of literature following hypotheses were proposed:
1) It is expected that Depression will be positively correlated with External LOC and negatively correlated with Internal LOC and mindfulness.



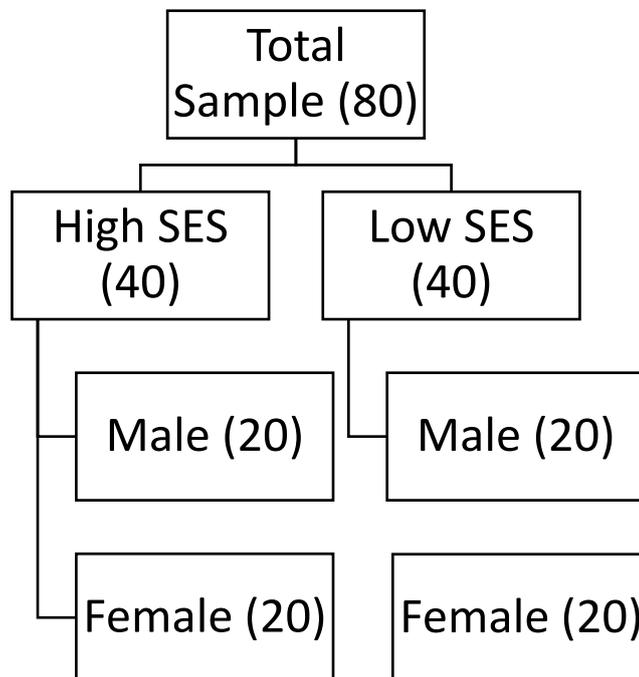
2) It is expected that Mindfulness will be positively correlated with Internal LOC and negatively with External LOC.

3) It is expected that there will be significant difference between high and low socio economic status on Depression, LOC and Mindfulness.

4) It is expected that there will be significant difference between males and females on Depression, LOC and Mindfulness.

Method

Sample



Procedure

The administration of the test took 20 minutes. The subjects were given proper instructions to answer these questions carefully. They were told to be spontaneous and honest in their answers.

Tests and tool

The information was collected with the use of following standardised scales:

1. Beck's Depression Inventory by Aaron Beck (1996).
2. Levenson's Scale of Locus of control by Levenson (1992).



3. The Freiburg Mindfulness Inventory by Walach, Buchheld , Buttenmüller, Kleinknecht & Schmidt (2006).

Statistical analysis

Descriptive statistics were calculated (mean and SD). Intercorrelation matrices of Depression, LOC and Mindfulness were obtained of males, females, high socioeconomic status, low socioeconomic status group & total sample separately. Two way analysis of variance for Depression, LOC and Mindfulness were also computed.

Results and discussion

Results were shown in table 1 to 11 and figure 1 to 4. Table 1 and 2 shows the mean and SD of males and females group and high and low socio economic status group. Table 3 shows the intercorrelation matrices of total sample (n=80) . Table 4 to 7 shows the intercorrelation matrices of males, females, high socio economic status and low socio economic status. Table 8 to 11 shows Two Way ANOVA of Depression, LOC and Mindfulness. Figure 1 4, shows graphical representation of ANOVA in depression, internal LOC, external LOC and mindfulness.

Significant relation among Depression , LOC and Mindfulness (see table 3). As in studies it is also seen that people who are high on mindfulness, are low on stress and depressive episodes when given a treated with MBSR programme (European Psychotherapy, 2009). It was published in South African Journal of Psychology (2011) that there was a significant relation between Health LOC, Mindfulness, openness to experiences, personal growth initiative and a sense of coherence on attitude towards seeking professional help which means that when healthy LOC increases, it also increases in mindfulness, more open to experiences and a sense of cohesion. And also concluded that LOC is also related to an individual wellbeing to a patient who is suffering from major depressive disorders. It support our hypothesis that Depression , LOC and Mindfulness will be related to each other. So it is accepted.

On the basis of Gender (for males ,see table 4& for females , see table 5), it was found that there is a significant relation between Depression, LOC and Mindfulness in males and in females. In earlier studies that depressive episodes were scored more than average and in many other studies as high among women because there are more likely to report sub clinical symptoms (Newman, 1984 & Nazroo, 1998) . It support our hypothesis that there will be a significant relation between male and female which is accepted. But there is no relation between Internal LOC and External LOC and of External LOC and Mindfulness. But recent studies have shown that the perception of control over the life event as in female was higher than males (Willian,1997). This difference might be due to cultural differences and situational factor of the sample.

On the basis of SES, High SES it was seen that Depression is significantly related to LOC and Mindfulness (table 6,). High SES were high on powerlessness and Low SES were high on External LOC and low in Internal LOC (Journal of youth and Adolescence, 1991). There is also a



significant relation of Mindfulness with External LOC but not with internal LOC. But in low SES other factors, except depression with LOC and Mindfulness, are not related to each other (table 7.). But studies have explained in a longitudinal study among the low SES of Afro- American in mindfulness and emotional responding (Adams , Chen, et . al, 2014). It does not support our hypothesis, so hypothesis is rejected.

The two way analysis of depression showed insignificant main effect of SES, $F=141.49$, $p < 0.005$ and the main effect of gender , $F=181.19$, $p < 0.05$ (see table 8) .But the interaction effect of SES and Gender is significant, $F=0.80$, $p > 0.05$,such that the average was significantly lower in males ($M=32.2, SD=8.54$) than females ($M=47.6$, $SD=8.63$). It indicated that depression will be higher or lower in SES and Gender. But the hypothesis is rejected that there will be significant difference between SES and gender on depression. In figure 1, showing the graphical representation of depression in ANOVA, presented that in male and female depression is high at low SES as compared to high SES. But in comparison between male and female, females are high at depression. And research have shown that women experienced depression at the rate much higher than men (Culbertson, 1997). WHO (2001) found that mental health in the world and showed that the occurrence of depression does not seem to differ between men and women. But anxiety and Depression have gender differences as being more in women than in men (Gold, 1998). Children with low SES have a high salivary cortisol level as compared to high SES children as the salivary cortisol level was related to his or her mother's extend of depression symptoms analogy (Lupien,King & McEwen, 2000). The two way analysis of internal LOC (table 9) showed significant main effect of gender, $F=0.601$, $p > 0.05$, such that the average was significant lower for males ($M=3.63, SD=4.431$) then for females ($M=7.79$, $SD=4.43$) . The interaction effect of SES and Gender was also significant, $F=0.249$, $p > 0.05$ which indicated that internal LOC was higher or lower in SES and gender, so that the hypothesis is accepted. But there is insignificant main effect of SES, $F=897.8$, $p < 0.05$. In figure 2, shows that male and females both were high at high SES as compared to low SES and the scores of males and females were almost same. Study done by Adolescent on self esteem and LOC by Cubb , Nancy . et. al. in 1997 that yielded a significant main effect of gender , self esteem and interaction effect. The analysis of external LOC yielded a insignificant main effect of SES, $F=223.35$, $p < 0.05$ and gender, $F=110.640$, $p < 0.05$. There was also insignificant interaction effect of SES & gender which indicate that there is no relation between them. It shows that external LOC will not be higher or lower level in SES and gender (table 10). So the hypothesis is rejected. In figure 3, showing the graphical representation of external LOC in ANOVA, depicted that males and females were low on external LOC in high SES and females were more high on external Loc than males. Mahummad Maqsed and Sepideh Rouhani in 1991 on relationship between SES and LOC and yielded in significant relation of SES and LOC. The analysis of mindfulness yielded an insignificant main effect of SES, $F=74.30$, $p < 0.05$ and of gender, $F=87.08$, $p < 0.05$ (table 11). The hypothesis is rejected. But the interaction effect is significant, $F=0.257$, $p > 0.05$ which means that mindfulness was higher or lower in SES and gender. In figure 4, mindfulness was low in high in SES as compared to low SES. But females were high on mindfulness than males. A research by Pidgeon and Grainger (2013) provides preliminary



support for the inclusion of mindfulness training in disordered eating behavior interventions for individuals exhibiting an insecure attachment style and neurotic personality traits.

This research has shown that how depression, LOC and mindfulness are related to each other. It can be seen that gender and SES differences effect these variables. This research will people in knowing their own personality and will useful in clinical field. Total sample of this study is N=100 and the advantage of large samples is that they allow the statistical power to the study.

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TABLE 1 Showing Mean and SD of males and females

(Males, n=40)

(Female,n40)

SNO	VARIABLE	MEAN	SD	MEAN	SD
1	Depression	33.2	8.54	7.22	8.6
2	Internal LOC	20.27	10.39	18.32	7.93
3	External LOC	22	10.38	34	3.14
4	Meaningfulness	18.2	2.78	23.4	3.31

TABLE 2 Showing Mean and SD of high & low socio economic status.

(High SES, n=40)

(Low SES, n=40)

SNO	VARIABLE	MEAN	SD	MEAN	SD
1	Depression	33.1	9.15	46.77	9.51
2	Internal LOC	27.22	5.45	11.32	2.52
3	External LOC	23.15	10.56	32.85	5.63
4	Meaningfulness	18.47	2.94	23.22	3.41

TABLE 3 Showing correlation between Depression, LOC and Mindfulness among among total sample. (n=80)

S No	Variables	1	2	3	4
1	Depression	-			
2	Internal LOC	0.619**	-		
3	External LOC	0.736**	0.511**	-	
4	Meaningfulness	0.734**	0.510**	0.611**	-

*correlation value significant at 0.05 level= 0.087

**correlation value significant at 0.01 level= 0.114

TABLE 4 Showing correlation between Depression, LOC and Mindfulness among males.(n=40)

S No	Variables	1	2	3	4
1	Depression	-			
2	Internal LOC	0.739**	-		
3	External LOC	0.709**	0.672**	-	



4	Meaningfulness	0.624**	0.491**	0.623**	-
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*correlation value significant at 0.05 level= 0.304

**correlation value significant at 0.01 level= 0.393

TABLE 5 Showing correlation between Depression, LOC and Mindfulness among females (n=40).

S No	Variables	1	2	3	4
1	Depression	-			
2	Internal LOC	0.725**	-		
3	External LOC	0.345*	0.239	-	
4	Meaningfulness	0.501**	0.637**	0.27	-

*correlation value significant at 0.05 level= 0.304

**correlation value significant at 0.01 level= 0.393

TABLE 6 Showing correlation between Depression, LOC and Mindfulness among high socio economic status. (n=40)

S No	Variables	1	2	3	4
1	Depression	-			
2	Internal LOC	0.361*	-		
3	External LOC	0.838**	0.269	-	
4	Meaningfulness	0.691**	0.07	0.722**	-

*correlation value significant at 0.05 level= 0.304

**correlation value significant at 0.01 level= 0.393

TABLE 7 Showing correlation between Depression, LOC and Mindfulness among low socio economic status. (n=40)

S No	Variables	1	2	3	4
1	Depression	-			
2	Internal LOC	-0.056	-		
3	External LOC	0.344*	0.265	-	
4	Meaningfulness	0.531**	-0.92	0.126	-

*correlation value significant at 0.05 level= 0.304

**correlation value significant at 0.01 level= 0.393



TABLE 8 Showing AVOVA of Depression.

Source	df	F	p
Gender	1	181.191	.000
SES	1	141.491	.000
Gender * SES	1	.080	.778*
Error	76		

TABLE 9 Showing AVOVA of Internal LOC.

Source	df	F	p
Gender	1	.601	.441*
SES	1	107.844	.000
Gender * SES	1	.294	.589*
Error	76		

TABLE 10 Showing AVOVA of External LOC.

Source	df	F	p
Gender	1	110.640	.000
SES	1	223.357	.000
Gender * SES	1	24.095	.000
Error	76		

TABLE 11 Showing AVOVA of Meaningfulness.

Source	df	F	p
Gender	1	87.045	.000
SES	1	74.303	.000
Gender * SES	1	.257	.614*
Error	76		



Figure 1 Showing graphical representation of depression in ANOVA

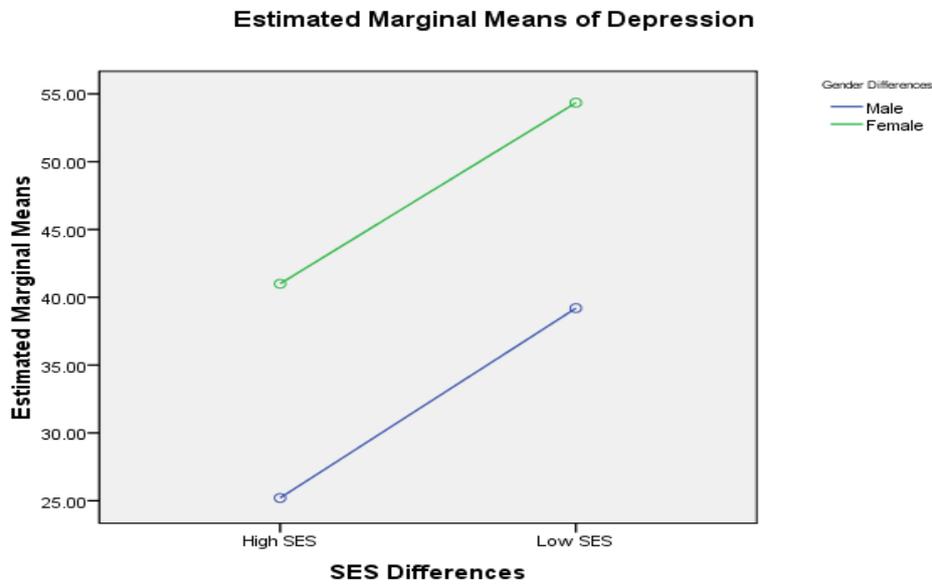


Figure 2 Showing graphical representation of internal LOC in ANOVA.

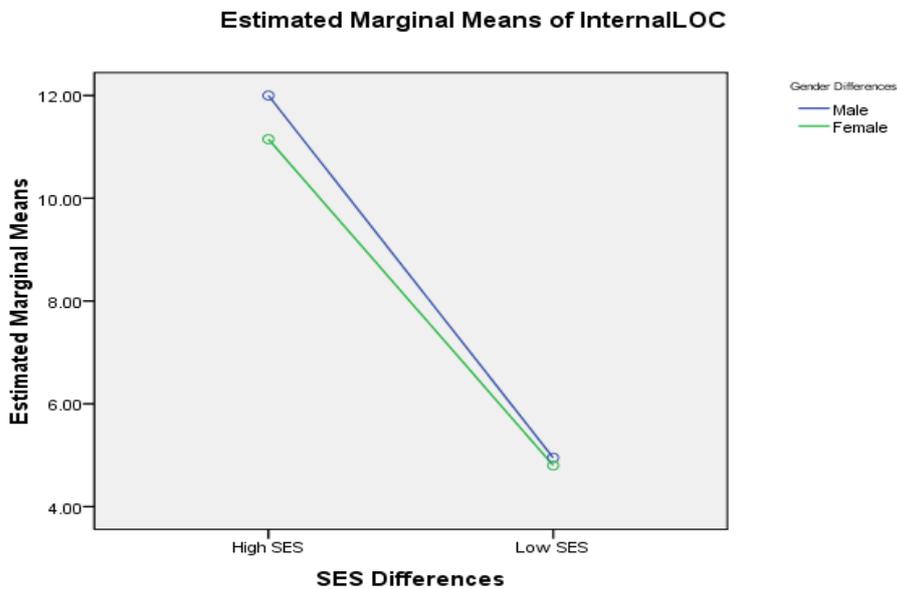




Figure 3 Showing graphical representation of external LOC in ANOVA.

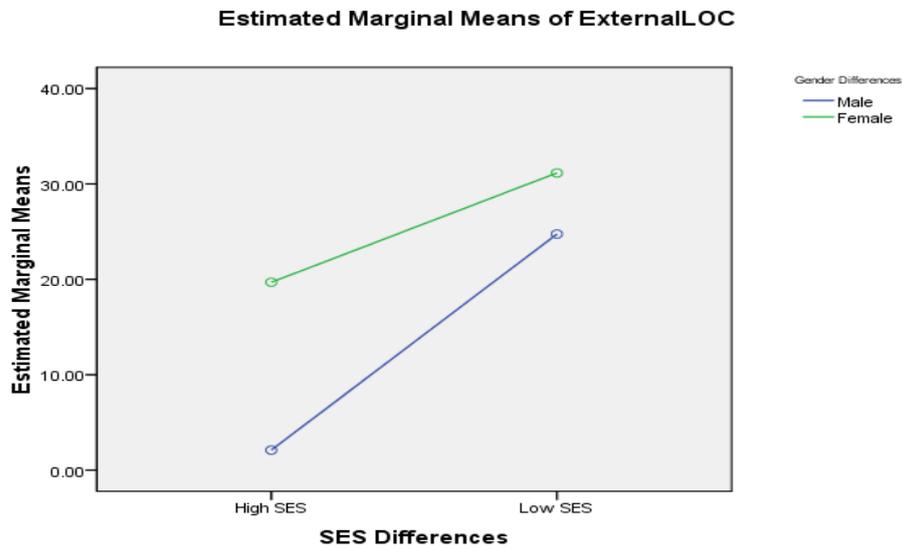


Figure 4 Showing graphical representation of mindfulness in ANOVA.

