# MENTAL HEALTH STATUS ASSESMENT OF ADULTS BELONGING TO DIFFERENT SOCIO-ECONOMIC GROUPS IN ASSAM (INDIA)

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## ABSTRACT

*Health of all age groups varies in each and every different cities, countries and continents. Infrastructure, life style, education, emotional and social wellbeing are significant factors of an individual mental as well as physical health. It is very necessary to have concept about one of the major domain of overall health i.e. mental health. To ascertain the overall mental health status in adult population of Assam state (North-East INDIA) survey research was conducted. In order to carry out the survey study visiting cards, consent form attached with the SF-36 questionnaire and Kuppuswamy's socio-economic status questionnaire were used and after having permission from colleges, schools, offices, clubs etc. subjects were surveyed where ever it was required. A total of twenty five hundred normal individuals of aged 30-40 years having different socio-economic conditions from various districts of Assam state were surveyed as sample of the study. The mean calculated for mental component summary (MCS) is 30.38 and SD is ± 8.78 where as the United States of America population values for mean mental component summary (MCS) is 50 and SD is ± 10. The scores are higher in comparison to those got by our survey study. The upper middle socio-economic group had better in overall mental health than other socio-economic groups while lower middle socio-economic class group was poor in this regards.*

***Keywords:*** *multidimensional, mental component summary measures, SF-36, socio-economic.*

## Introduction

Mental health issues have been recognized increasingly as major health problem amongst public in India as well as in the state Assam. As per the results from National Mental Health Survey (NMHS) India, 2015-16 indicated that near about 5.85% people in Assam (those more than 18 years) need intervention for mental health issues. As per the report mental health system of Assam is poorly organised, fragmented and uncoordinated to address problems such as common mental disorders, severe mental disorders and substance use problems. Health can be assessed in terms of positive indicators of health status or the total absence of mental health as well as physical health, reflected in disease specific death (mortality) rates. According to statistics of W.H.O. India is lagging much behind many countries of the entire world in health status. According to Annual Report, 2008 India positioned 112th position. This is no less true in the case of state Assam. The self-rated health responses were used as an indicator of an individual health status and these indicator measures individuals' perception of their overall health. A research work was conducted on the self-reported health status of older adults in Malaysia and Singapore. Their study revealed that poorer health was more prevalent among people with lower education. In an another study, it was found that older employed adults had better health outcomes than unemployed older adults and a strong association seen between employment and health status in older adults beyond what could be explained by socioeconomic factors such as education, income. (Kachan & Fleming, 2015). In a study by Ronika Agrawal and Charleen D'silva, it was found that the calculated mean of mental component summary (MCS) in Indian population was 51.63 with ±8.55 standard deviation while in the present study the calculated mean of mental component summary (MCS) calculated mean was 30.38 with SD ±8.78. This was lesser than the overall Indian population. Again, in the population of United States of America the mental component summary (MCS) mean value is 50 with ±10 standard

deviation. The overall MCS score represented the total mental health of the subjects.

## Materials and Methods

To obtain required data, the investigators had selected twenty six hundred (N=2600) adult working men randomly and then categorized in to 500 samples in each socio-economic class as per socio-economic condition from five different divisions of Assam state. The age ranged between 30 to 40 years old. Incomplete questionnaires of respondents and over aged as well as below 30 years aged respondents were not taken as samples for this study. After showing interest towards the present research work adult men from various places of Assam state were chosen as sample of this survey study. The tools used in the present study were updated Kuppuswamy's socio-economic status scale by Dr. Nazia Tabassum and Dr. R.L. Lakshman Rao and SF-36 questionnaire developed by John E. Ware, Jr.

The following abbreviations were used in the present study.

| **Abbreviation** | **Full form** | **Abbreviation** | **Full form** |
|---|---|---|---|
| VT | Vitality | SEC | Socio-economic class |
| SF | Social Functioning | UC | Upper Class |
| RE | Role-Emotional | UMC | Upper Middle Class |
| MH | Mental Health | LMC | Lower Middle Class |
| MCS | Mental Component Summary | LUC | Lower Upper Class |
| | | LC | Lower Class |

The scales namely mental health, role-emotional and social functioning correlate highly with mental component summary (MCS) scores while vitality comparatively less correlated with mental component. After all, these four scales contribute most in scoring overall mental health of a person.

The One way analysis of variance (ANOVA) was applied to find out whether any significance difference is there in overall mental health status among five different socio-economic categories. In the testing of two tailed hypothesis, the level of significance was set at 0.05.

## Results and Findings

**Table1**

**Descriptive statistics of mental component summary (MCS) measures**

| | No. of Sample | Mean | Std. Deviation | Std. Error | Minimum | Maximum |
|---|---|---|---|---|---|---|
| UC | 500 | 30.43 | 8.94 | 0.40 | 7.50 | 55.27 |
| UMC | 500 | 31.42 | 8.49 | 0.38 | 1.10 | 55.87 |
| LMC | 500 | 29.00 | 8.33 | 0.37 | 3.34 | 55.17 |
| LUC | 500 | 29.92 | 8.55 | 0.38 | 4.79 | 50.41 |
| LC | 500 | 31.13 | 9.39 | 0.42 | 2.95 | 55.95 |
| Total | 2500 | 30.38 | 8.78 | 0.18 | 1.10 | 55.95 |

**Table 2**

**Analysis of variance on mental component summary (MCS) measures among adult men of different socio-economic status groups**

| | df | Sum of Squares | Mean Square | F | Sig. (P-value) |
|---|---|---|---|---|---|
| Between Groups | 4 | 1878.59 | 469.65 | **6.14*** | 0.00 |
| Within Groups | 2495 | 190879.08 | 76.50 | | |
| Total | 2499 | 192757.68 | | | |

**Table 3**

**Post hoc mean comparison on mental component summary (MCS) measures among adult men of different socio-economic status groups**

| Socio-economic Class (I) | Mean (I) | Socio-economic Class (J) | Mean (J) | Mean Difference (I-J) | Std. Error | Sig. |
|---|---|---|---|---|---|---|
| **UC** | 30.43 | UMC | 31.42 | 0.99 | 0.55 | 0.07 |
| | | LMC | 29.00 | **1.42*** | 0.55 | 0.01 |
| | | LUC | 29.92 | 0.51 | 0.55 | 0.36 |
| | | LC | 31.13 | 0.70 | 0.55 | 0.21 |
| **UMC** | 31.42 | LMC | 29.00 | **2.42*** | 0.55 | 0.00 |
| | | LUC | 29.92 | **1.51*** | 0.55 | 0.07 |
| | | LC | 31.13 | 0.30 | 0.55 | 0.59 |
| **LMC** | 29.00 | LUC | 29.92 | 0.92 | 0.55 | 0.10 |
| | | LC | 31.13 | **2.12*** | 0.55 | 0.00 |
| **LUC** | 29.92 | LC | 31.13 | **1.21*** | 0.55 | 0.03 |

*. The mean difference was significant at the 0.05 level.

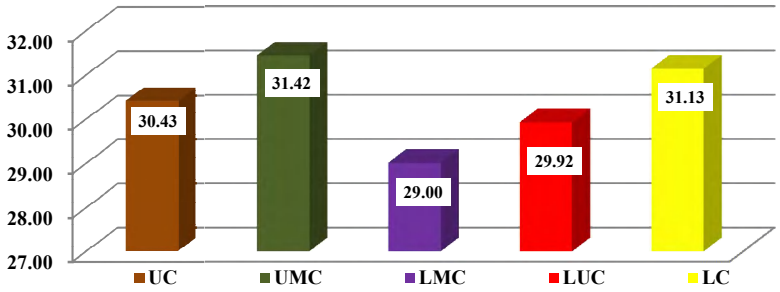


Fig 1: Graphical representation of MCS among adult men of different socio-economic status groups

Table-1 showed the descriptive statistics of the data on mean overall mental health status of adults in different socio-economic groups. Table 2 revealed that the F-value was significant at 5% level as the p value attached with the calculated F-value is 0.00 which was less than 0.05. Hence, the null hypothesis of no difference in the overall mental health status among the adults in all the five socio-economic groups was rejected. Therefore, LSD post hoc test was used to compare the means in different pairs. From Table-3 it was seen that amongst all the pair wise comparisons only the difference between overall mental health status of the adults in upper class and lower middle class, upper middle and lower middle class, upper middle class and lower upper class, lower middle class and lower class, lower upper and lower class was significant at 5% level because the p-value for those mean differences was less than 0.05.

Based on statistical analysis and graphical representation evident from Table 1, Table 3 and Figure 1, it was inferred that the overall mental health status in the upper middle class adults was better than all other adults whereas overall mental health status was poor in lower middle socioeconomic group. Further, overall mental health status was nearly similar in adult men belonged to upper middle class and lower class group while the lower socio-economic group was only better than upper socio-economic group. The mean calculated for Mental component summary (MCS) is 30.38 and SD is ± 8.78 where as the United States of America population values for mean mental component summary (MCS) was 50 and standard deviation was ± 10. The scores are higher in comparison to those got by our survey study.

On the basis of literature review it may be summarised that mostly poor individuals live a stress free life in comparison to rich people because poor people have less tension to lose something or to gain something as they live an easy going lifestyle. People with well education and occupation know their limits of earning or achieving according to their strength and weakness. So these people were mentally better a bit than people with limited income and education. Again, people having limited education and income were not good in mental health aspects because they might be thinking of gaining more with their limitations. Simultaneously, they understand well that with their limitations everything is not possible to gain which may be a reason of getting upset or mentally disturbed. According to results of National Mental Health Survey (NMHS-Assam) India, respondents from the lower income group were observed to have higher occurrence of mental disorders.

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