

AI (ARTIFICIAL INTELLIGENCE) AND MENTAL HEALTH

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Abstract

Artificial Intelligence might be the most awaited revolution in the forthcoming time for the different industries, firms, academia and the society. In this modern psychology era when humans are replaced by the machines, we must bear in mind that machine or here Artificial Intelligence as a tool is made by humans and operated by humans, can definitely produces its effect on humans and their mental health. In this study total number of 121 samples (both in working and nonworking category together 74 male 47 female) were randomly selected who uses Artificial Intelligence. "Mental Health Scale-^{ABJ}© - Prof.Dr.AshwinJansari" was administered to measure individual sample's mental health. After collecting the data the same was analysed by using "t" test to check the significant difference between various groups under this study. The result shows that there is a notable difference between male and female in relation to their mental health. While with another category, the study result shows that there is no significant difference between 15 years to 20 years age group and 21 years to 26 years age group of people in relation to their mental health. Also with the third analysis category of working and nonworking group of people had no significant difference in relation to their mental health.

Keywords: Artificial intelligence, mental health, male and female, 15 to 20 years age and 21 to 26 years age, working and nonworking AI users.

INTRODUCTION

AI today is a fateful tool for various industries like agriculture, business, care giving, education, e-commerce, environmental monitoring, finance, gaming, government, health, internet, law, media, manufacturing, service providing, security, transportation, and almost every segment in society, firms and academia globally. It is commonly seen that many of past revolutions had left their major drawback effect on life and health of a human and the nature. At this global warming environmental situation we must to know the effect of an upmost revolution artificial intelligence on the mental health of an individual. Hence herewith we are going to study the effect of artificial intelligence on mental health of humans in different comparative analysis such as between male and female, between 15 years to 20 years age group and 21 years to 26 years age group, between non employed and employed samples.

OBJECTIVES

- 1) To study the difference between male and female samples in relation to their mental health who supposed to use artificial intelligence in their day to day life.
- 2) To study the difference between 15 years to 20 years age group and 21 years to 26 years age group of samples in relation to their mental health who supposed to use artificial intelligence in their day to day life.
- 3) To study the difference between students (non-working) and employee (working) samples in relation to their mental health who supposed to use artificial intelligence in their day to day life.

RESEARCH METHODOLOGY

In this study the researcher applied Mental Health Scale-^{ABJ}© - A closed type of approved questionnaires method which was developed by Prof.Dr.AshwinJansari and was published by Bharti ManomapanCenter, Ahmedabad, Gujarat, India. The aim of present research is to study the level and development of mental health in relation to AI users.

SAMPLES

In this study 121 samples were selected randomly who are from different cities of India but residing or working in Ahmedabad, Gujarat, India as on today. From those 121 individuals there were 74 male and 47 female. Also from those 121 samples, 80 samples were from 15 years to 20 years of age, while 41 samples were from 21 years to 26 years of age. The same 121 samples were again categorized as per their working aspect as 91 samples in Non-working condition and 30 samples were in working condition.

Group	Gender wise	Age wise	Working wise
Group A	Male – 74	15 to 20 years – 80	Non-working – 91
Group B	Female – 47	21 to 26 years - 41	Working – 30

TOOLS

For the measurement of mental health of above selected samples, Mental Health Scale^{ABJ} developed by Prof. Dr. Ashwin Jansari was been used.

VARIABLES

- Independent Variables:
 - 120 samples (male gender and female gender).
 - 120 samples (15 years to 20 years age and 21 years to 26 years age).
 - 120 samples (working professionals and non-working individuals).
- Dependent Variables:
 - Score on mental health test.

RESEARCH DESIGN

Ex post facto design is adopted in this study.

HYPOTHESIS (NULL HYPOTHESIS)

- There will be no significant difference in mean score of mental health between male and female gender samples.
- There will be no significant difference in mean score of mental health between 15 years to 20 years of age and 21 years to 26 years age samples.
- There will be is no significant difference in mean score of mental health between working and non-working samples.

STATISTICAL ANALYSIS OF DATA

In this study researcher used “t” test to analyse the significant difference between the different groups of samples.

PROCEDURE

The collection of data was speared over a period of 30 days and the researcher personally visited the selected samples of Ahmedabad district.

The researcher took the permission of the samples and for administering the test and fix dates on the scheduled date. The researcher met with the samples (people) and made them clear the purpose of administration. The researcher sought their cooperation. The instructions were explained by the researcher and the doubts were made clear. They were assured that their response will be kept confidential. So, they can give their honest response. The test was administered to the samples and collected back only after they responded completely. After the completion of the administration the researcher conveyed their gratitude and thanks to the samples for their kind cooperation.

ANALYSIS AND INTERPRETATION OF THE RESULTS

The random data of questionnaire was statistically analysed in terms of getting data interpretation. The data interpretation include mean, median, standard deviation, degree of freedom and “t” test to compare the relation between artificial intelligence and mental health.

- Degree of freedom (df) = (N1 + N2) - 2 = 121-2 = 119
- “t” value at 0.01 level of significance is 2.626
- “t” value at 0.05 level of significance is 1.984

Here in this study we will analyse the “t” value at 0.01 level of significance (i.e. 2.626). Below are the tables showing mean SD (Standard Deviation) and “t” value of mental health of the samples taken in different categories.

Table: 1

Group	N	M	SD	"t" value
Male	74	26.88	25.50	2.925
Female	47	13.66	23.38	

From the above data given in table no. 1 we can see that mean score of mental health obtained by male and female is 26.88 and 13.66 and the S.D. (standard deviation) of mental health in male and female is 25.50 and 23.38 respectively. Further value of "t" is observed 2.925 which is higher than the table value at 0.01 level of significance (i.e. 2.626). Hence it is clear that there is significant difference between mental health of male and female individuals those are about to use artificial intelligence as a tool in their day to day life.

DISCUSSION

The results of the current study have led us to the conclusion that there is a significant difference in mental health of artificial intelligence user male and female individuals. This difference may be because of their busy and hectic day to day routine life and their multi-tasking personality and multiple roles in every individual family.

Table: 2

Group	N	M	SD	"t" value
15 to 20 Years	80	24.8	26.11	1.890
21 to 26 Years	41	16.0	23.22	

From the above data given in table no. 2 we can see that mean score of mental health obtained by male and female is 24.8 and 16.0 and the S.D. (standard deviation) of mental health in male and female is 26.11 and 23.22 respectively. Further value of "t" is observed 1.890 which is lesser than the table value at 0.01 level of significance (i.e. 2.626). Hence it is clear that there is no significant difference between mental health of 15 years age to 20 years age and 21 years age to 26 years age group of samples that are supposed to use artificial intelligence as a tool in their day to day life.

DISCUSSION

The results of the current study have led us to the conclusion that there is no significant difference in the mental health of artificial intelligence user of different age group as in 15 years age to 20 years of age and 21 years age to 26 years of age. This resemblance may be because both age groups can be considered in young age group of individuals. In future use of artificial intelligence in wide exposure we may be able to reanalyse the same with elderly people who use artificial intelligence in their daily life.

Table: 3

Group	N	M	SD	"t" value
Working	30	22.90	25.01	0.289
Non-working	91	21.36	25.68	

From the above data given in table no. 3 we can see that mean score of mental health obtained by working and non-working individual is 22.90 and 21.36 and the S.D. (standard deviation) of mental health in male and female is 25.01 and 25.68 respectively. Further value of "t" is observed 0.289 which is lesser than the table value at 0.01 level of significance (i.e. 2.626). Hence it is clear that no significant difference between mental health of working and non-working individuals those are about to use artificial intelligence as a tool in their daily life.

DISCUSSION

The results of the current study have led us to the conclusion that there is no significant difference between mental health of working and non-working individuals that are supposed to use artificial intelligence. This equivalency may be because working individuals may not have other or over workload in their life while the non-working individuals were the students in their current age. With the wider use of artificial intelligence in future time we can further expand this study with up to 60 years age people with another criteria including married and non-married group of samples here.

CONCLUSION

1) There is a notable difference between mental health of male and female gender of samples that are supposed to use artificial intelligence.

- 2) There is no significant difference between mental health of 15 years age to 20 years age and 21 years age to 26 years agegroup of samples that are supposed to use artificial intelligence.
- 3) There is no significant difference between mental health of working and non-working individuals that are supposed to use artificial intelligence.

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