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A COMPARATIVE STUDYOF INTELLIGENCEAND MENTAL HEALTH AMONG CHESS PLAYERS AND NON CHESS PLAYERS OF KARNATAKA STATE LAW UNIVERSITY

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Abstract

Chess psychology has been widely researched, and findings suggest that expertise in chess is based more on knowledge, experience, and pattern recognition than on raw visuo-spatial ability. An intelligent person understands the situation readily, has very clear impressions, retains his experiences effectively and profits by his experiences. In this study Depression, Anxiety and Stress as subscales of mental health indicate mental health of a chess player. In the game of chess and education, it is very essential to understand the differences in various Psychological factors among Chess Players and Non Chess Players or sports persons and non sports persons. The objective of the was to compare the level of Intelligence with Sub scales of Mental Health among Chess Players and Non Chess Players of Karnataka State Law University. The Hypothesis was, there is no difference in Intelligence and Sub scales of Mental Health of Chess Players and Non Chess Players of Karnataka State Law University. To assess Intelligence Raven's Progressive Matrices By John C. Raven, was used and to assess Mental Health and ts subscales Depression, Anxiety and Stress Scale (DASS21), by Lovibond, S.H. & Lovibond, P.F., was employed. To analyze the differences in the Intelligence and Decision Making ability with Sub scales of Mental Health that is Depression, a t-test was carried out for the impaired samples. The analysis revealed that, there is a significant difference in Intelligence quotient between Chess Players and Non Chess Players and chess players are having more Intelligence quotient than non-chess players. There is a significant difference in all the three subscales of mental health between Chess Players and Non Chess Players. Non-chess players are having more Depression than chess players. Non-chess players are having more Anxiety than chess players. Non-chess players are having more Stress than chess players. The investigator concludes that Intelligence and Mental Health plays a vital role in performance analysis and improvement in the game of chess.

KeyWords: Intelligence quotient, Mental Health, Depression, Anxiety and Stress, Chess Players and Non Chess Players, Karnataka State Law University.

Introduction

Chess is one of the oldest and most popular board game. Chess is part of the curricula in nearly 30 countries. In Venezuela, Iceland, Russia and other countries, chess is a subject in all public schools. In western coastal city Vancouver, British Columbia, Canada, the Math and Chess Learning Center, recognizing the correlation between chess playing and math skills development, has developed a series of workbooks to assist Canadian students.

Psychological qualities of Chess Players

Chess psychology has been widely researched, and findings suggest that expertise in chess is based more on knowledge, experience, and pattern recognition than on raw visuo-spatial ability. A successful chess player requires a combination of deep concentration, emotional control, Intelligence, Decision Making, Good personality, Reaction time and mental resilience to perform under high pressure.

Intelligence

An intelligent person understands the situation readily, has very clear impressions, retains his experiences effectively, profits by his experiences, is able to manipulate ideas actively and has fertile imagination, has greater self-confidence and analysis even his own behaviour critically. Playing chess builds strong tactical and pattern-recognition skills. In sports and education, it is very essential to understand the differences in various factors among Chess Players and Non Chess Players or sports persons and non sports persons. The objective of the was to compare the level of Intelligence with Sub scales of Mental Health among Chess Players and Non Chess Players of Karnataka State Law University. The Hypothesis was, there is no difference in Intelligence and Sub scales of Mental Health of Chess Players and Non Chess Players of Karnataka State Law University.

Mental health

Mental health is a state of well-being in which a person understands his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully. In this study Depression, Anxiety and Stress as subscales of mental health indicate mental health of a chess player.

The Need for the Study

Deep Concentration, Emotional Control, Intelligence, Decision Making, good personality, Reaction Time and Mental Resilience are accepted as some of the most important factors that determine the selection and performance of Chess Players. In the game of chess and education, it is very essential to understand the differences in various Psychological factors among Chess Players and Non Chess Players or sports persons and non sports persons. Hence, the researcher's interest is to compare the level of Intelligence and Decision Making ability with Sub scales of Mental Health among Chess Players and Non Chess Players of Karnataka State Law University.

Objectives of the study

To compare the level of Intelligence with Sub scales of Mental Health among Chess Players and Non Chess Players of Karnataka State Law University.

Hypothesis

There is no difference in Intelligence and Sub scales of Mental Health of Chess Players and Non Chess Players of Karnataka State Law University.

Methodology

To achieve the purpose of the study, the investigator has selected two hundred (N=200) students of Karnataka State Law University. The subjects for the study are hundred (100) chess players and hundred (100) non-chess players of Karnataka State Law University. The subjects are ranging in age between 18-26 years only.

Chess players are selected on the basis of students who took part in the inter-college competition, representing college in Karnataka State Law University. Non-Chess players were selected randomly on the basis of students who did not played chess in Karnataka State Law University colleges.

Selection of Variable for the Study

After a thorough review of literature related to chess and keeping in view of the feasibility of the study in terms of availability of tests/questionnaire the following variables were selected. To assess Intelligence Raven's Progressive Matrices by John C. Raven, 1985 was used and to assess subscales of Mental Health, Depression, Anxiety and Stress Scale (DASS21) questionnaire, by Lovibond, S.H. & Lovibond, P.F., 1995 was employed.

Statistical Analysis

To analyze the differences in the Intelligence and Decision Making ability with Sub scales of Mental Health that is Depression, a t-test was carried out for the impaired samples.

Table 1:Mean scores on intelligence quotient by groups of students and results of independent samples 't' test

Variable	Group	N	Mean	S.D	t value	p value
Intelligence quotient	Chess players	100	51.11	4.95	6.019	.001
	Non-chess players	100	46.55	5.73		

Independent samples t tests revealed significant mean differences between chess players and non-chess players in intelligence quotient. The obtained t value of 6.019 was found to be significant at .001 level, revealing that chess players scored significantly more than non-chess players.

Table 2:Mean scores on subscales of mental health by group of students and results of independent samples 't' test

Variables	Group	N	Mean	S.D	t value	p value
Depression	Chess players	100	24.60	6.22	-5.846	.001
	Non-chess players	100	29.64	5.97		
Anxiety	Chess players	100	23.28	4.93	-7.295	.001
	Non-chess players	100	28.74	5.63		
Stress	Chess players	100	22.22	5.03	-4.038	.001
	Non-chess players	100	25.26	5.60		

Independent samples t tests revealed significant mean differences between chess players and non-chess players in all of the subscales of mental health. In depression, the obtained t value of -5.846 was found to be significant at .001 level, revealing that non-chess players scored significantly more than chess players. In anxiety, the obtained t value of -7.295 was found to be significant at .001 level, revealing that non-chess players scored significantly more than chess players. In stress, the obtained t value of -4.038 was found to be significant at .001 level, revealing that non-chess players scored significantly more than chess players.

Major Findings of the Study

1. There is a significant difference in Intelligence quotient between Chess Players and Non Chess Players and chess players are having more Intelligence quotient than non-chess players.
2. There is a significant difference in all the three subscales of mental health between Chess Players and Non Chess Players.

3.Non-chess players are having more Depression than chess players.

4. Non-chess players are having more Anxiety than chess players.
5. Non-chess players are having more Stress than chess players.

Discussion

The study conducted by Saptorshi Gupta and Soham Sengupta (2022) evaluated the difference in mental health conditions between a chess-playing and non-chess-playing (control) group for determining the positive impacts of the game. The results revealed that chess playing leads to lesser chances of mental breakdown in challenging, unprecedented situations.

The present study reveals the same, hence the Hypothesis formulated was rejected as result shows there is differences in Intelligence and Sub scales of Mental Health of Chess Players and Non Chess Players of Karnataka State Law University

Conclusion

After the analyzing the results of the study, the researcher concludes that Psychological qualities are integral part of all sports. Intelligence and Mental Health plays a vital role in performance analysis and improvement in the game of chess. The present study results are in agree with previous study results that Psychological qualities have strong relationship with chess playing performance.

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