

Effect of Physical Fitness and Ageing Process On Positive Mental Health

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Abstract

Present study aimed at to examine the effect of physical fitness on positive mental health. 540 females were selected from different age group To measure positive mental health three dimensional scale was used and to measure physical fitness Cooper's Cardio Respiratory Fitness Test was administered on subjects. After data collection, physical fitness level has been determined. Then subjects were classified according to there fitness level and age group. To see the effect of ageing and fitness on positive mental health 6x3 ANOVA techniques was applied. Significant F ratio indicates that the factor of physical fitness was more effective in developing positive mental health.

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Introduction

Mental health indicator are subject to a number of confounding influences in reporting, recording and diagnosis whether women or men have better mental health profiles is not entirely clear. It is clear that women and men consistently receive care from diverse providers and service facilities. Differential diagnoses also appear to be quite consistent, regardless of provider or service variables. Age pattern for the onset of symptoms suggest that young and middle adulthood are particularly trying times for both women and men but that coping strategies lead to different sets of symptoms.

Ageing is a process of unfavorable progressive change, usually correlated with the passage of time, becoming apparent after maturity and terminating invariably in death of the individual. Other alternatives to this irreversible decrement model of ageing, however, are possible. Longevity, growth, ageing and disease are commonly held to be inter-related. Accelerated ageing generally thought to shorten the duration of life, and the retardation of ageing is considered to prolong life. In the majority of cases intervening diseases terminate life, although some deaths can not be attributed to specific diseases. Finally, the rate of growth, or some correlate of it, may determine the rate of ageing and thus the duration of life.

Undoubtedly the factor most universally associated with ageing, in the public mind, is the generalized deterioration in physical performance observed in the elderly. In the course of a few years there is a noticeable decline in vigour, in physical strength and co-ordination, and in general work abilities.

In present study the term mental health is considered as positive mental health. It consists of three dimensions namely self acceptance, ego strength and philosophy of life. Earlier studies conducted regarding mental health are limited up to the negative aspects of the mental health. Studies pertaining to physical fitness on negative aspects of mental health i.e. Neale (1969), Vanfraechem (1977), Mall (1979), Goldberg and Shephard (1982), Gill (1988). Therefore investigator attempted to see the effect of fitness and ageing upon positive mental health.

Investigator hypothesized that ageing and physical fitness will affect positive mental health of females.

Methodology:-

Systematic planning was made to investigate the effect of ageing and physical fitness on mental health.

Sample:

Effective sample consisted of 540 females from Aurangabad division. 540 subjects of different age group i.e. 36 to 40, 41 to 45, 46 to 50, 51 to 55, 56 to 60, and 61 to 65, were selected.

Tools:**Physical Fitness Test:**

To measure physical fitness cooper's 12 minutes run and walk test was administered on the subjects.

Mental Health Test:

To measure positive mental health three dimensional Mental Health Inventory prepared by Agashe and Helode (1988) was used.

Procedure:

The data were collected in the two sessions. In the first session Cooper's physical fitness test was administered on the subjects, on the play ground.

In the second sessions subjects were called in the class room and asked them to sit comfortably and forms of mental health inventory were distributed. Then asked them to read the instruction given on the first page and write answers as early as possible. In this way the whole data were collected.

After collecting the data on physical fitness whole sample was divided in to the three categories i.e. high, Average and low fit, using the Q1 and Q3 technique.

On the basis of physical fitness 90 cases were selected from each group and classified on the basis of their fitness level. Finally 540 subjects were selected representing all six groups of age.

Design of Study:

A 6 x 3 factorial design was used where age was varied at six level and physical fitness at three levels.

Analysis and Interpretation -

The 6 x 3 ANOVA techniques were adopted to verify the hypothesis. The obtained results are presented in table 1.

Table No. 1
Effect of Physical Fitness and Ageing Process on Positive Mental Health
Of females 6 (Age Groups) x 3 (Physical Fitness)
ANOVA; N=540

| Age Group (A) | Physical Fitness (B) | | |
|--------------------|----------------------|----------------------|----------------------|
| | High Fit | Low Fit | Average Fit |
| 36-40 years | M=23.04 S.D.=3.24 | M=15.33 S.D.=4.49 | M=20.06 S.D.=3.20 |
| | n=22 | n=24 | n=44 |
| 41-45 years | M=24.45 S.D.=3.69 | M=16.45 S.D.=3.37 | M=20.97 S.D.=4.11 |
| | n=24 | n=22 | n=44 |
| 46-50 years | M=23.60 S.D.=2.78 | M=17.07 S.D.=3.57 | M=20.53 S.D.=2.75 |
| | n=25 | n=26 | n=39 |
| 51-55 years | M=24.86 S.D.=2.81 | M=17.13 S.D.=4.40 | M=21.42 S.D.=3.24 |
| | n=22 | n=23 | n=45 |
| 56-60 years | M=23.36 S.D.=2.53 | M=20.26 S.D.=3.09 | M=21.06 S.D.=3.56 |
| | n=22 | n=23 | n=45 |
| 61-65 years | M=23.18 S.D.=3.52 | M=18.98 S.D.=4.11 | M=20.60 S.D.=3.12 |
| | n=22 | n=25 | n=43 |

Table No.2
ANOVA Summary

| Source of variation | Sum of square | df | Mean Sum of square | F |
|---------------------|---------------|--------|--------------------|----------|
| A. Age group | 186.32 | 5.00 | 37.26 | 3.12** |
| B. Physical fitness | 2766.31 | 2.00 | 1383.15 | 115.98** |
| A x B | 272.02 | 10.00 | 27.20 | 2.28** |
| Within + Residual | 6225.31 | 522.00 | 11.93 | |

**Significant at 0.01 level

Results indicated in table 1 & 2 that ageing is one of the major causes, which affect positive mental health in females ($F = 3.2$, $df = 5$ and 522 , $P < 0.01$) similarly physical fitness components also showing its effect of positive mental health ($F = 115.98$, $df 2$ and 522 , $P < 0.01$) The joint effect of ageing and physical fitness shows ($F = 2.28$ $df 10$ and 522 $P < 0.01$ level) more fitness along with ageing influence positive mental health.

Present study reflects that as the age increases, mental health becomes sounder. It also represent that physical fitness is more dominating factor for improving mental health. While observing combined effect of ageing and physical fitness, it is very clear that more magnitude of fitness shows effective positive mental health on different age groups.

Conclusions:

- 1) Ageing and mental health were significantly related
- 2) The factor of physical fitness was more effective in developing positive mental health

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