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Gender, Age and Regional Perspectives of Mental Health in Armed Forces Aspirants

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Mental health is indispensable for a good quality of life and thus needs to be addressed as an important component of improving overall health and well-being. Research data showed that long-term outcomes for adolescents with conduct problems were closely similar. In a country with wide cultural differences and traditions, the study attempts to evolve regional difference in mental health among the genders and two age groups. On a judgmental sampling (N= 431) of armed forces aspirants there are significant differences in mental health among the genders, where as there are no differences among age groups and among subjects from various geographical regions of India. In factorial analyses the interaction effects of age, gender and region significantly impacts mental health. Within considerations the results has its relevance of unified perspective of gender, age and region in accessing the personality of armed force aspirants.

Keywords: Mental Health, Gender, Regions, Armed forces aspirants

Mental health is increasingly seen as fundamental to physical health and quality of life and thus needs to be addressed as an important component of improving overall health and well-being of an individual. It is determined by multiple and interactive social, psychological, and biological factors, just as health and illness in general (Desjarlais et al., 1995). Over the past 25 years the multidisciplinary field of prevention science in mental health has developed at a rapid pace, resulting in fast-growing number of scientific publications and programmes. However the programmes are less competent in ensuring the mental health of the masses.

Many misconceptions exist among the general public, and even professionals, regarding the concept of mental health. This is due to the fact that mental health is undervalued in many ways in the present societies. The concept is often confused with severe mental disorders and associated with societal stigma and negative attitudes. In common language, the concept of mental health is used in different ways, and often it has a negative connotation because it is associated with severe and chronic mental illnesses. In principle, mental health refers to the characteristics of individuals, but one can also speak about the mental health of families, groups, communities and even societies. Mental health as a concept reflects the equilibrium between the individual and the environment in a broad sense. The WHO**,** defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2001b).

The primary vision of health psychology is to impart psychological knowledge; methods and skills to prevent illness, facilitate recovery as well as promote health and wellbeing. On the contrary, mental health and public health had a long history of weak

interactions, despite the possibilities for a stronger working relationship (Cooper, 1990; Goldberg & Tantam, 1990; Goldstein, 1989).

Mental Health and Gender

Gender is an area of concern while looking at the mental health. Males have better mental health than females (Thomas, Corinne & Natacha, 2000), as there are multiple roles, which are bound to impact mental health of females. Failing to capture the gender differences causes omissions in complexity and diversity of human health, and errors in understanding that can lead to poor evidence and inappropriate potentially injurious outcomes (Doyal, 2002; Greaves, et al., 2000). Mental health outcomes differ in sexes (Finch, Kolody & Vega, 2000). On the contrary it is undeniably easier to record sex rather than measure the relevant body dimensions, but it may not be as good a predictor (Messing & Stellman, 2006). Women involved in health care are liable for more professional health hazards and infections and more exposed to psycho-social risks (Arcand et al., 2000) and its causative towards mental health Arcand et al., 2000). Gender has significant impact on adjustment level of the students (Arvind & Kamdar, 2000). Therefore a concerted and articulated action can be evolved on the basis of gender.

Mental Health and Age

Age is another parameter which does play a role in mental health. Consistent associations exist between mental health and age. Family is considered the cradle of future society. It is within the family that adolescents learn who and what they are (Veena & Khadi, 2004). Youth aged between 12 and 29 had the lowest prevalence of positive mental health and highest prevalence of mental health problems (Thomas, Corinne & Natacha, 2000). Research reveals a substantial rise in psycho-social disorders affecting young people over the past 50 years. Child development studies show substantial increase in adolescent conduct problems over the 25-year study period that has affected males and females, in all social classes and all family types (Pronczuk & Garbino, 2004).

There was also evidence for a recent rise in emotional problems, but mixed evidence in relation to rates of hyperactive behaviour (Stephan, et al., 2004). Analyses using longitudinal data showed that long-term outcomes for adolescents with conduct problems were closely similar. This provided evidence that observed trends were unaffected by possible changes in life styles. (Gottlieb, et al., 1987) suggests that health behaviours associated with sex and age differences should be generally looked in for future research.

Mental Health and Region

When considering the subcontinent India, which has inflow of various practices associated with culture and a wide diversity, it is necessary to further look in to the cultural issues or the mental health of people from various regions. In India, people come forward for treatment only if treatment is readily available. Government's role lies in incorporating the formulation and remodulation of the National Mental Health Program and the Mental Health Act. For example, rehabilitation camps for addicts in the community, rehabilitation of opium addicts in the high prevalence areas, introduction of yoga in prisons are a few futuristic vision examples (WHO, 2007).

In classical Indian tradition, health is 'conceptualized as a state of delight or a feeling of physical, mental and spiritual wellbeing, which is at the proximity towards a mind which is peaceful serene, free from conflicts and desires' (Ram 1998; Sinha, 1990). The understanding of what health is, differs among various strata of people. For a middle class and upper middle class people in India, health includes spiritual striving and

is seen as a value or a norm in itself, something to be sought and achieved *i.e.* the equilibrium (*Sama* or a balanced state 'Samyavastha') but for poor in remote villages, illness-free bodies and economic wellbeing constitute health and happiness (Chakraborti, et al., 1999; Priya, 2002). The spiritual dimension of mental health also gains concern in the subcontinent due to its culture.

Need of the study:

Mental health is an indivisible part of the general health and well-being. The positive value of mental health, which contributes to human well-being, quality of life and creativity, is not accorded high priority. Building an evidence base is an incremental process. It should be culturally sensitive and use a wide range of research methods. The necessity for expanding the evidence base is more relevant to sense the reality of those working and living in low-income countries (WHO, LMIC, 2007). McQueen (2001) points out the strong cultural and geographic bias in which evidence is currently articulated and represented in the health literature.

Objective:

The aim of the paper is to study the mental health levels of defence service aspirants from various regions of the subcontinent which are likely to have implications in the selection of the armed forces personnel.

Hypotheses:

The existing empirical evidence suggests that the mental health has been influenced by many variables. The subcontinent India where the study is undertaken has wide variety of cultures. In order to cater for those differences, the region was taken as a separate entity in the present study. The interactions of the above-mentioned variables with the demographic variables of age and gender are also a possibility. The hypotheses framed for the research questions are as follows:

H_1 There will be differences in Mental Health of different regions.

H_2 There will be differences in Mental Health between the two age groups.

H_3 There will be differences in Mental Health between the genders.

H_4 There will be main and interaction effects of Gender, Age, Region on Mental Health.

Method

Sample:

The candidates appearing in the armed forces officers' entry served as sample for the study after their testing hours with willing consent. Normally, the age of the candidates appearing for officer's selection ranges from 18 to 45 years. For the present study, it was decided that participants who were between the age range of 18 and 30 years were alone considered. The candidates are from various parts of the country who have undergone the entire selection procedures during the period of Oct '2010 in a particular venue formed the part of the study. In total the sample consisted of *431* participants out of whom *214* were males and *217* were females. The average age was *23.81* years. The researcher believed that the sample is typical of the population hence a good and representative of the population. Assuming the concerned cases to be typical nature of the population within the age frame using the judgmental sampling (Singh, 2008), the sample was identified as region-wise sample. The participants were from five regions on the basis of their geographical dwelling so as to include all parts of the country.

Instrumentation:

Mental Health Scale {MHS} (Kamlesh Sharma, 1996): It consists of 60 items (30 positive and 30 negative statements). Items were arrived after item analysis and later the scale was standardized on a sample of 1200

subjects. This scale has a reliability of 0.88 by spilt half method and 0.86 by test retest method. The validity coefficient with equivalent Mental Health Check list (Pramod Kumar, 1996) was found to be 0.79 and hence considered as reliable and valid test for the present study. The data was collected in groups of approximately 40-55 participants on various sessions as per availability. The reliability coefficient was 0.81

Results

The Mean Score of Mental health on the sample was found to be M= *90.77* (SD= *12.09*).Initially the probability plot of the data was done to see the normality of the data. The figure II below reveals the nature of the data.

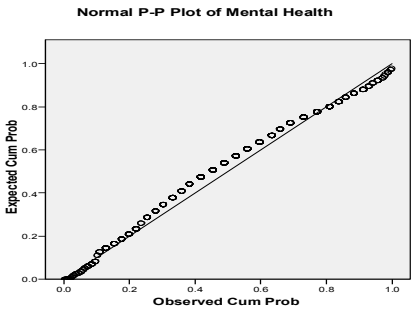

Figure II Normal Probability plot of Mental Health.

The ascending nature of the slope in the above figure 1.1 indicates that the data is in close approximation. The plot conveys that the sample studied was within the limits of normality with scope for generalization. Moreover, the sample size is *N* = *431*. Larger datasets (more than 40) yields increased statistical power, and more over the empirical error rates do eventually stabilize at 0.05 confidence levels as a consequence of the central limit theorem, which takes care of violations of the normality (Jerome & Arnold, 2003). Hence, the researcher assumed that the statistical power is adequate as the two criteria of normality limits and large sample size being met.

Since the genders and age are of two groups they are tabulated together as above. From the table II the mental health was found to be M= of 88.19 (*SD*=12.70) among the males and 93.31 (*SD*= 10.90) among the females. Here the mean score of Mental Health of females was found to be more than that of males. The F value was found to be *20.17* at the highest confidence level which infers there the differences among the mental health between genders are significant. Hence the hypothesis $\mathbf{H}_3$ is accepted. Mental health was found to be M= of 90.59 (*SD*=12.02) in group I and 90.96 (*SD*= 12.18) in group II. Here the mean score of Mental Health has insignificant differences as the *F* value was found to be *0.10* Hence the hypothesis H_2 was rejected.

The mental health of subjects from various regions was found to be M=*91* (*SD* =*12.01*) in North Indian Sample, M=*89.43* (*SD*=*12.49*) in South Indian sample, M=91.15 (*SD*=*11.49*) in the Eastern region, M=*91.87* (*SD*=*12.28*) in the Western region, M=*90.35* (SD=*12.25*) in central Indian sample. Analysis of variance among the five regions conveys that, *F* value was *0.50* which infers that there are no significant differences in the mental health levels of the subjects from various regions. Hence the hypothesis $\mathbf{H}_1$ is rejected.

Table 1. 'F' values of main effects and interaction effects of Age, Gender, and Region on Mental Health

Mental Health Attribute	df	F Values
Main Effects Region	4	.682
Gender	1	16.885 **
Age	1	.094
Interaction Effects		
Region & Gender	4	1.957
Region & Age	4	.170
Gender & Age	1	.009
Region & Gender & Age	4	2.366 *

*p< 0.05 **p<0.01

Table 1 displays the summary of *F* values arrived by univariate analyses of variance of mental health. The main effect of

region on mental health was found to be insignificant with *F* value being *0.682*, where as the main effect of gender on mental health sounds very significantly with *F* value being *16.885*. The effect of age attribute was insignificant on mental health with *F* value being *0.94* .The interaction effects were also found to be insignificant with *F* values being *1.957, 0.170, 0.009* in between region and gender, region and age, and as well as gender and age respectively. However the compounded interaction effects of gender, region and age on mental health was found to be significant with *F* value being *2.366* .Hence the hypothesis $\mathbf{H}_4$ is partly accepted in case of gender and as well as compounded interaction effects of age, gender and region where as it is rejected in cases of main and interaction effects of region and age on mental health.

Discussion

The findings of the present study seem to be fruitful in viewing the mental health trends in the armed forces aspirants in India. Mental health is an individual resource contributing to different capacities and skills. It was compared to natural, renewable resources (Lehtonen, 1978). Its renewal must be understood as a continuous process which makes up the course of life, consisting of a sequence of phases in which the earlier always affects those that follow. In favorable circumstances, mental health can increase, but when exploited beyond their natural capacity for renewal it can even be destroyed due to inappropriate actions by the society.

Research has pointed two main pathways through which a person's mental and physical health and functioning mutually influence each other over time, interacting with social and environmental influences on health. The first pathway is directly through physiological systems, such as neuroendocrine and immune functioning. The second pathway is through health behaviour (Gureje et al., 1998). The term health is a comprehensive term which covers a range of activities, such as eating sensibly, getting regular exercise and adequate sleep, avoiding smoking, engaging in safe sexual practices, wearing safety belts in vehicles and adhering to medical therapies.

In cultural context, health and illness as linked to societal beliefs, values and practices (Joshi 2000). There will be individual and cultural differences of mental health among populations. Efforts to maximize their options through improved physical health, supportive social conditions and opportunities for personal growth would promote mental health. In this particular study the difference are trivial when considering the demographic parameters. But at the same time one should not deny the effects viewed upon compounding of these factors as they cease to exist in independently. For example an individual cannot be in isolation from his community nor be refrained from mingling with others.

The results of this study gains relevance when the demographic attributes of gender, age and region were taken together. The results reveal that there is significant impact on the mental health when these factors of considered together and obviously these exist only in total when considering an individual.

Application to the defence services recruitment

With reference to the armed forces the term health is even more comprehensive which also relates to the quality of the work the individual can perform and as well as the value system, integrity which the nation relies on the individual inadvertently as a service requirement. In times of stress and troublesome moments which are a part of defense services, if people are taught to be resilient and optimistic, they will be less likely to suffer from depression and will lead happier and more productive career. Positive

health psychology relates to concepts of optimism and authentic happiness. These concepts were explored by Seligman (1991, 2002). In other words, it can be seen as building psychological 'muscles' before problems occur. Evidence suggests interplay between mental, physical health and wellbeing with outcomes such as educational achievement, productivity at work, development of positive personal relationships, reduction in crime rates and decreasing harms associated with use of alcohol and drugs (Tudor, 1996). Promoting mental health should not only result in lower rates of some mental disorders and improved physical health but also better educational performance, greater productivity among the future officers in the armed forces. The compounded effects of the gender, region and the age have to be kept in mind while assessing the personality of the candidates and in recruitment of candidates for the services.

Limitations

Though the participants were of selected age group and cannot be considered as totally representative of the wider population, the results of the study can be generalized to other populations within the age criteria considering the limitations. In spite of the limitations, the findings add to the research of mental health.

Conclusion

The study was done at the maximum parsimony with mental health variable as it was decided to see an overall picture of the current trends. The study opens up a way further to explore the dimensions of mental health specifically which can help us understand and gain knowledge about health systems prevailing and as well as to decide upon the intervention required to suit the needs. There are clear and welcome signs of a desire to work together in building sustainable systems for health rather than relying on fragmented and piecemeal approaches (OECAD, 2005). All health promoters, regardless of their professional area of interest, should be united by their dedication to one overriding aim *i.e.* equity in health. That is, they should seek to reduce the gap between those with the best and those with the worst. Alarmingly, this gap seems to be widening (WHO, 2002b). In an optimistic view, mental health is the foundation for wellbeing and effective functioning for an individual and a community. It is more than the absence of mental illness and capacities as noted in the definition which has value in them.

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