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Stress as a Predictor of Psychological wellness in Old age: an Indian Perspective

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Abstract

Old age is considered to be the phase of degenerative changes taking place in an individual's life span. It is one of the different phases of life which is characterized by physical as well as psychological decline. Old age contributes in bringing about a change in individual's behavior, attitude, intelligence, ability physical capacity etc. Deficiency in either of the form makes a person distressed and unsatisfied. Psychological wellness is a major concept in this direction for each and every individual especially during the old age. The present study was designed to explore the relationship between five areas of stress viz. physical stress, emotional stress, mental stress, spiritual stress and relational stress with the psychological wellness among the healthy Indian elderly couples. Using stress assessment scale the stress reactions of 100 elderly couples aged between 60 to 75 years (N=200) was measured in five domains of stress. Similarly psychological wellness was assessed using psychological wellness scale. Results were consistent with the prior findings in literature. Stress was found to be negatively related with the psychological wellness in elderly couples. However, it was also revealed that physical stress was found to be the most significant predictor of psychological wellness among elderly. The psychological wellness of elderly has been correlated with the severity of stress and its dimensions. Stress has been found to hold a negative relationship with that of psychological wellness in elderly couples. Thus keeping psychological wellness in healthy direction the elderly people should be directed for lessening their stress and maintaining their psychological wellness.

Key words: Stress ,Psychological wellness , Old age

Introduction

In the beginning of this century about 12 million Indians were aged 60 years or more. The number of aged doubled in the next sixty years to 24 million (Dey, 2003). Since then there has been a great increase in the number of elderly to about 56 million in 1991. The projected figures for the years 2001 and 2025 are 70 million respectively. The decadal growth rates in the 60+ age group since 1951-1961 have remained above 26% and are about 5% to 8% higher than those for the total population. There has been a tremendous increase in the life expectancy at birth and at 60 years of age. Expectancy of life at birth has shown a rise of more than 10 years from 49.7 years during 1970-1975 to 60.3 years during the period 1991-1995. Over this period of about a quarter century, the expectancy of life at 60 and 70 years has also shown a significant increase from 13.8 and 8.9 years respectively to 16.2 and 10.6 years. 45% of the elderly have chronic disease and disabilities. The ten most common chronic diseases are hypertension, cataract, osteoarthritis, chronic obstructive pulmonary disease, ischemic heart disease, diabetes, benign, prostatic hypertrophy, dyspepsia, constipation and depression. The five most frequent causes of death in elderly are bronchitis and pneumonia, ischemic heart disease, stroke, cancer and TB.

A majority of the problems of the elderly occur in the community and a primary care approach may be one of the possible approaches. Physicians working in the area of primary and secondary health care in developing countries have a huge responsibility providing quality health care to older people. Health care workers can support older people in staying

independent and healthy by understanding age related norms, thereby maximizing the capabilities of the older people. Among the reasonably healthy elderly there is a constant need for regular health care, supervision, monitoring of blood pressure, early detection and treatment of chronic illness, monitoring of the effectiveness and side effects of routine medication, assessment of nutritional status and instruction in healthy lifestyles. Health care workers should have the knowledge of what is normal in old age what can realistically be expected as a good standard of health.

Individual is born as a child but he/she doesn't remain so. Age makes him grow and he/she passes from the different phases of life. It is the last stage in one's life in which most of the people develop deficiency either in physical form or in psychological form or in both. PW is a major concept of each and every living being. Every one of us tends to live a life that is physically as well as psychologically well. The movement in the direction of positive psychology is accompanied by a shift towards the study of PW. Walsh and Shapiro (1983) stated that one of the primary reasons for the existence of psychology is to contribute to our understanding of PW and to enhance our ability to realize it. Happiness, life satisfaction, autonomy, environmental mastery, morale, personal growth, positive relationship with others and self acceptance tends to determine the PW in old age. One among the several reasons is the stress experienced by the elderly during the old age. The term stress has been used to describe a variety of negative feelings and reactions that accompany threatening or challenging situations. The stress reaction maximizes the expenditure of energy which helps prepare the body to meet a threatening or challenging situation and the individual tends to mobilize a great deal of effort in order to deal with the event. Both the sympathetic/adrenal and pituitary/adrenal systems become activated in response to stress. The sympathetic system is a fast-acting system that allows us to respond to the immediate demands of the situation by activating and increasing arousal. The pituitary/adrenal system is slower-acting and prolongs the aroused state. However, while a certain amount of stress is necessary for survival; prolonged stress can affect health adversely (Bernard & Krupat, 1994). However, social perspectives of the stress response have noted that different people experiencing similar life conditions are not necessarily affected in the same manner (Pearlin, 1982). According to Selye, an important aspect of stress is that a wide variety of dissimilar situations are capable of producing the stress response such as fatigue, effort, pain, fear, and even success.

An attempt has therefore been made to investigate and explore the relationship of stress with that of PW during the old age.

Method

A retrospective survey was carried out on a sample of 100 elderly couples aged between 60 years to 75 years. Data was collected using two measures viz. stress assessment scale (SAS) was used for assessing the stress relating to five broad domains viz. physical stress, emotional stress, mental stress, spiritual stress and relational stress. The questionnaire consisted of 83 stress reactions divided into five domains viz. physical stress (e.g. high blood pressure, insomnia, loss of appetite), emotional stress (e.g. frustration, mood swings, depression), mental stress e.g. dull senses, lethargy, boredom), spiritual stress (e.g. emptiness, loss of direction, apathy), relational stress (e.g. isolation, intolerance, distrust). The questionnaire was easy to understand and answer.

The second questionnaire administered was the psychological wellness scale (PWS) consisting of 50 items. The entire questionnaire was divided into eight domains which together determine the PW of an individual. These eight domains are viz. autonomy, environmental mastery, happiness, life satisfaction, morale, personal growth, positive relationship with others and self acceptance.

Respondents consent and ethical approval

Respondents who have contributed in the research have been informed about the study and they have given the consent for the processing of the data. Although each of the respondents name and responses have been kept confidential.

Analysis : A database in Excel format was created and the statistical analysis was done using the SPSS program. To explore the relationship between stress and its five domains with the PW in elderly coefficient of correlation using the Pearson R formula was implied.

The relationship between dependent variables (psychological wellness in elderly) and independent variables (stress and its five areas) has been evaluated using a model of simple multiple linear regression analysis.

Results

The inter correlation matrix of the elderly couples stress with PW has been shown in Table 1. The results show that psychological wellness is negatively related to stress overall and its five domains. This relation is significant for PS at 0.01 level and for stress overall at 0.05 level.

Similarly the stepwise multiple linear regression analysis shown in Table 2 reveals that only PS has emerged as the strongest predictor of psychological wellness. The goodness of fit (coefficient of determination) is found to be 0.90. The variance accounted by physical stress into the PW of elderly couples is found to prevail in almost 90% cases.

Table 1: Showing inter correlation matrix of stress with the psychological wellness in elderly couples

Stress (X)	Psychological Wellness (Y)
Physical Stress (X1)	-.300**
Emotional Stress (X2)	-.016
Mental Stress (X3)	-.034
Relational Stress (X4)	-.027
Spiritual Stress (X5)	.005
Stress Overall (X6)	-.234*

** Significant at 0.01 level

* Significant at 0.05 level

Table 2: Showing the Multiple Linear Regression Analysis

Criterion Variable: Psychological Wellness (Y)

Predictors included in the Regression Model of elderly couples: X1-Physical Stress

Table 2 (a)

R	R square	Adjusted R square	Std. error of the estimate	F- Ratio	Sig
.300	.090	.080	6.554	9.659	.002

Table 2 (b)

Variables Entered	Sum of squares	df	Mean Squares	F	P
X1	415.00	1	415.00	9.659	.002
Physical Stress	4210.627	98	42.966		
	4625.628	98			

Regression coefficient for variables included into the model of Elderly couples

Table 2 (c)

Variables Entered	Unstandardized Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	236.27	9.994		23.642	.000
X1 Physical Stress	8	.515	-.300	-3.108	.002
	-1.600				

Discussion

Data emerging from the present study reveal that stress has a negative impact on the psychological health of elderly couples. Among the various domains of stress, PS was found to be the most significant predictor of stress in old age. Rollin McCraty

Mike Atkinson and Dana Tomasino (2003) in a study examined the impact of a workplace-based stress management program (HeartMath) on blood pressure (BP), emotional health, and workplace-related measures in hypertensive employees of a global information technology company. Results showed significant reductions in stress symptoms, depression, and global psychological distress and significant increases in peacefulness and positive outlook. Similarly Rollin McCraty Mike Atkinson and Lee Lipsenthal (2000) conducted a study to investigate the effect of changes in psychological status, quality of life and hematologic measures predictive of long-term health and well-being in patients with diabetes following a stress reduction and emotional self-regulation program. Results indicated that patients experienced significant reductions in psychological symptomatology and negative emotions, including anxiety, depression, anger and distress, following the intervention. Significant increases in peacefulness, social support and vitality were also measured, as well as reductions in somatization, sleeplessness and fatigue. They also showed reduced sensitivity to daily life stressors after the intervention, and quality of life significantly improved.

Acute stressors were associated with potentially adaptive up regulation of some parameters of natural immunity and down regulation of some functions of specific immunity. Brief naturalistic stressors tended to suppress cellular immunity while preserving humoral immunity. Chronic stressors were associated with suppression of both cellular and humoral measures. Effects of event sequences varied according to the kind of event (trauma vs. loss). In some cases, physical vulnerability as a function of age or disease also increased vulnerability to immune change during stressors (Suzanne and Gregory, 2004).

This clearly indicates to the fact that those elderly who are more prone to PS suffer adversely on their PW. The high variance accounted by PS in elderly also provides support to the fact that PS certainly plays a significant role in determining the effect of PW in elderly couples.

Conclusion

It has been well established that stress certainly brings about an adverse effect on the PW of elderly couples. It not only affects the mental and the psychological health of the individual in old age but also brings about a decline in physical ability of the individual. The study reveals some important facts about the relationship between stress and PW. All the five domains of stress i.e. physical stress, emotional stress, mental stress, relational stress and spiritual stress have found to be in negative relationship with that of psychological wellness. Although among all the five domains only PS has been found to be the most important predictor of PW. Those elderly who are high on anxiety or who experience high blood pressure, migraine headaches, constipation, insomnia, loss of appetite or who are anemic, experience body tremors etc suffer adversely on their psychological health too. Therefore such elderly couples should be directed to lower their physical stress by undergoing various exercises and other stress based intervention programs so that they may effectively maintain their psychological health and may lead a healthy physical and psychological life.

Abbreviations

SAS: Stress Assessment Scale, PWS: Psychological Wellness Scale, PW: Psychological Wellness, PS: Physical Stress

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