Verma, S.K., & Verma, A. (1989). *Manual of PGI General wellbeing measure*. Agra: Ankur Psychological Agency.

Verma, S.K. Verma, A., & Mahajan, A. (1989). Quality of life in University students. *Mind, 15*, 15-20.

Walia, I.J., Mehra, R., Grover, P., Earnest, C. Verma S.K., & Sanjeev. (1989). Health status of Nurses and Yoga I. *Nursing Journal of India, 80*, 231-235.

Walia, I.J., Mehra, R., Grover, P., Earnest, C., Verma, S.K., & Sanjeev. (1989). Health status of Nurses and Yoga II. *Nursing Journal of India, 80*, 256-258.

Walia I.J., Mehra, R., Grover, P. Earnest C., Verma S.K., & Sanjeev. (1989). Health status of Nurses and Yoga. *Nursing Journal of India, 80*, 287-290.

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Psycho-Social Determinants of Health

A. Suresh and Latha

India is a vast but very diverse country with many ethnic and cultural groups. Socioeconomic, literacy and health conditions vary from state to state and region to region. There are more than 1½ billion young people between the ages of 10 and 24 years in the world, 85% of them live in developing countries like India and nearly 40% of the one billion population of India are below the age of 20 years. In absolute numbers the Indian youth are a significant proportion of the world's youth population. The World Health Organization (WHO, 1986) defines health comprehensively and positively as "*a state of complete physical, mental, social well-being and not merely, the absence of disease or infirmity.*" This definition emphasizes on positive and negative dimensions of health. Negative health or ill-health has a subjective component expressed in the concept of illness and discomforts and an objective component expressed in concept of disease, injury, handicap or deformity. Positive health has two components: well-being and fitness. This state entails an appropriate balance of the physical, mental, social ingredients. Fitness can be considered as the objective physical components, where as well-being can indicate the psychosocial component of positive health.

Behavioural patterns followed by a person during adolescence last a lifetime. They influence the health and well-being of the individual. In the present time human life-style is undergoing significant changes and the most affected are the adolescents. Technological advances have made the world a global village. Today, youths are exposed to more information and cultural alternatives than in earlier periods. This provides them with culturally diverse choices, which cannot be easily exercised due to economic dependence. Ironically, today's youth has to prepare for a global life of competition, comparison and independent functioning in a dependent environment. One important asset or resource, which will stand by them in their life process, is *health* and this internal resource must be well established. But sometimes they can fall a victim to different types of psychosomatic illness if they do not know how to tackle it with good behaviour patterns with regard to health. This leads them to adopt strange ways of unhealthy behaviours, that, in turn, makes their health risk higher.

In today's fast-paced modern life, our health is under attack from innumerable sources of stress, environmental pollution, unhealthy work conditions, industrial smoke, unsafe water, noise and so on. There are countless threats or risks to human health. Health risk constitutes a broad category that can include both health risk factors (poverty, role strain, social isolation, hostile temperament) and health risk behaviours (substance abuse, violence, sedentary lifestyle or habits, unprotected sexual intercourse, poor eating habits). WHO has recently published a report stating ten leading global health risk factors: *Under Weight, Unsafe Sex, High Blood Pressure, Tobacco Consumption, Alcohol Consumption, Unsafe Water, Sanitation and Hygiene, Iron Deficiency, Indoor Smoke from Solid Fuels, High Cholesterols and Obesity.* Together, these factors account for more than one third of all deaths worldwide.

However, a general tendency of youths to disregard health possibly based on the assumption that health is an everlasting resource, may lead to behaviour that objectively causes health risks while subjectively the youths are not so concerned. Risky behaviour means "normal" behaviour for youths in today's world's, which demands more and more independent and self-regulation from individuals. Only when health risks lead to symptoms that demand attention do individuals seem to take corrective action. Sometimes when individuals' demands are very high and if they are not able to achieve it, an inbuilt pressure will be created within them which results in stress.

Personal beliefs and attitudes are central in determining what action people will undertake to achieve health (Coates and Boore, 1995). People with internal control expectancies are more likely than those with external control expectancies, to believe that engaging in physical activities will enhance physical fitness and will result in improved physical health. Consistent with this reasoning, researchers have found that internality is related to better over-all fitness, especially for men (Adame, Johnson, and Cole, 1989, Adame, Johnson, cole, Matthiason, Abbas, 1990, Nowicki, Dan, Thomas, Johnson and Cole, (1997).

Adolescents and young adults' personal goals, and how they are worked out, have been shown to have consequences for their well-being and mental health. It has been found that power-related goals are associated with a low level of well-being while self-related goals are with mental health problems. Hurrelmann (1990) defines health as the objective and subjective state of well-being that is present when the physical, psychological and social development of a person are in harmony with his or her own possibilities, goals and prevailing living conditions. Some of the intrinsic and extrinsic factors mediating and moderating health status are attitudes and resources. Among attitudes and beliefs, locus is considered as strong predictors of health. Social support and socio-economic status are considered as external resources moderating health status.

Epidemiological research findings reveal the positive relationship between social support and health. Many

psychological findings have shown the influence of social support on health. A Stress Buffer Model points that social support protects or "buffers" individuals from the influence of stressful events. Most research in this area has shown that perceived social support enhances physiological and mental health or adjustment (Cohen and Wills 1985). Yarcheski, Mahon and Yarcheski (1992) hypothesized and found positive relationship between social support and perceived health status, in middle and late adolescents. Thakur and Misra (1999) in their study on role of social support in daily hassles and well-being experiences of women found a positive, significant correlation between mental health and social support. The socio-economic status also plays vital role in promotion of health. The poor facing risks like under weight and unsafe drinking water and are suffering because there is little choice for them; the rich are suffering because they are making wrong choices in terms of consumption and activity. There are some risk factors, which are occupationally related, like low back pain, which is a result of wrong seating or working posture. It is an "economic stressor" and is leading to serious diseases. Thus, the review points to the fact that health promotion is essential to enhance health behaviour, mediated by locus of control, value, belief and also social support. All the above stated theoretical and research evidence emphasize the need to explore the determinants of health of young adults.

Epidemiological data on age related trends in risk behaviours suggest that much of these behaviours peak in the period from late adolescence to early adulthood and then decline or are probably maintained. Youths are the active construers, choosers and shapers of their environments rather than simply passive recipients of environmental influences. However, to develop effective interventions for adolescents or youths, knowledge of their unique characteristics and the processes that impact their health and health relevant decisions are needed.

Keeping in mind where onset of many lifestyle pattern gets crystallized during young adulthood the investigator choose to

study a cross section of young and old adults. The present study aims to investigate the interrelationships between beliefs, behaviours and health status and the role of social support and social context on health among young adults.

Problem

To investigate the interrelationships between health belief, behaviour, health status and the role of social support, social context on health among young adults.

Hypotheses

Many researchers have found the relation of health locus of control with health status and health behaviours. For example, studies by Mohan and Segal (2002), Hutchinson (1997), Duffy (1997), Nowicki et al. (1997), Vincent and Guinn (2001) revealed significant relation among health locus of control, health status and health behaviours. On the basis of these findings, the following hypotheses were set for the present study.

1. The Health locus of control would significantly predicts health behaviour, general health status and subjective perception of health.

    (a) Higher the Internality better will be the subjective perception of health, general health status and also health behaviour.

    (b) Higher the powerful others and chance locus of control poorer will be the subjective perception of health, general health status and also health behaviour.

Studies on Social Support implicate it as an important mediating variable in many health related concepts like health behaviour, health status and its perception. For example studies by Sara, Saunders and Dietary (1999), Srivastava and Mukhopadhyay (2002), Miller and Iris (2002), Fry and Barker (2002), Yarcheski, Mahon and Yarcheski (1997), Piano (1997) revealed a significant positive relationship among social support, health behaviour and health status. Based on these findings, the following directional hypotheses were set for the present study.

2. Social support would significantly influences health behaviour, subjective perception of health and general health status.

   (a) Higher the social support greater will be the subjective perception of health, general health status and positive is the health behaviour.

3. Socio demographic factors would significantly influence the health behaviour and overall health status.

METHOD

Design

An "Ex post facto" research design was adopted to test the research hypotheses.

Sample

The sample selected for the study consists of 648 respondents (Mean age: 25.53 years), both male and female from different educational and socio-economic background. This sample represents a cross - section of age groups and was selected by using random sampling procedure.

Tools

To assess the variables identified for the study the investigator used the following standardized psychological tools.

1. Health Behaviour scale by Santhana Karthikeyan and Swaminathan (2001).
2. Multi Dimensional Health Locus of Control Scale by Wallston et al. (1978).
3. Sense of Support Scale by Dolbier and Steinhardt (2000).
4. General Health Questionnaire (GHQ-12) by Goldberg (1978).

Procedure

The 648 respondents were administered the four tools. The survey data obtained was analyzed descriptively and Step wise Multiple Regression was carried out to infer the predictors of

health status and health behaviour. Statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) for windows.

RESULTS AND DISCUSSION

The survey data obtained on a sample of 648 people were analyzed descriptively and Stepwise Multiple Regression was carried out to infer the predictors of health status and health behaviour.

The data collected (N = 648) was analyzed to evaluate the influence of health related variables and socio-demographic factors on Total Health Status and Health behaviours. Step wise multiple regression was carried out by entering Social Support, Health Behaviour, Internality, Powerful others and Chance Factors as predictors and Total health status health behavour as dependent variable.

Table 1 shows that health related variables like social support, chance factors of health locus of control and health behaviour emerged as significant predictors of health status. However, none of the other health related variables contribute significantly to health status. When compared to other variables social support proves to be better predictor of health status. The total health status is a compiled score of both objective and subjective measures of health status taken in this sample. The higher score is indicative of ill health. Social Support negatively contributes to ill health ($ß = -0.265$). The R^2 value of 0.07 explains 7 per cent variance in health status by social support and it shows the contribution of sense of support to health status of the individuals. So, it is inferred that more the social support a person has better will be his/ her health. Table 1 also shows a significant contribution of Chance factors ($R^2=0.080$) and Health Behaviours ($R^2=0.088$) to health status of respondents. The addition of Chance factors explains a further one per cent of the variance ($R^2=0.080$) in health status of individuals. However, addition of Health Behaviour only explains another one per cent ($R^2=0.088$).

TABLE 1

Stepwise Multiple Regression with Total Health Status as predicted variable and other Health Related Variables as significant predictors

	Predictors	Constant	R²	ß	F-value	Significance
1	Social Support	21.38	0.070	-0.265	48.69	0.00
2	Chance Factors	18.97	0.080	0.100	27.96	0.00
3	Health Behaviour	23.03	0.088	-0.095	20.60	0.00

TABLE 2

Step wise Multiple Regression with Total Health Status as predicted variable and Socio Demographic Variables as significant predictors

	Predictors	Constant	R²	ß	F-value	Significance
1	Sleep	10.49	0.060	0.246	38.46	0.00
2	Age	13.61	0.094	-0.185	31.12	0.00
3	Physical activity	11.14	0.105	0.103	23.28	0.00
4	Personal history	11.41	0.114	0.098	19.12	0.00
5	Exercise	9.71	0.121	0.088	16.41	0.00

TABLE 3

Stepwise Multiple Regression with Health behaviour as predicted variable and other Health Related Variables as significant predictors

	Predictors	Constant	R²	ß	F-value	Significance
1	Social Support	58.47	0.130	0.361	96.54	0.00
2	Internality	53.26	0.140	0.102	52.54	0.00
3	Total Health Status	56.31	0.149	-0.096	37.48	0.00
4	Chance Factors	59.04	0.154	-0.078	29.36	0.00

TABLE 4

Stepwise Multiple Regression with Health behaviour as predicted variable and Socio Demographic Variables as significant predictors

Model	Predictors	Constant	R²	ß	F-value	Significance
1	Sleep	77.21	0.027	-0.163	16.35	0.00
2	Exercise	81.88	0.052	-0.160	16.46	0.00
3	Gender	78.63	0.072	0.142	15.43	0.00

The findings are in line with the evidence by Fry and Barker (2002) who reported that survivors with high levels of social support and extensive social support networks report better psychological health and adjustment than do those with lower levels of support and smaller networks. The study also confirms the earlier findings of Srivastava and Mukhopadhyay (2002) and Hagerty and Williams (1999).

Therefore, the hypothesis stating "Higher the Social Support greater will be the subjective perception of health, general health status and positive is the health behaviour" is accepted.

The hypothesis stating "The health locus of control significantly predicts health behaviour, general health status and subjective perception of health" is also accepted.

Step wise multiple regression was carried out by entering Sleep, Age, Physical activity, Personal history, Exercise, Gender, Marital Status, Education, Occupation, Income, Food Habit and Smoking as predictors and Total Health Status as dependent variable.

Table 2 shows that Socio-Demographic Variable like Sleep, Age, Physical activity, Personal history and Exercise emerged as significant predictors of health status. However, none of the other socio-demographic variables contributes to total health status. When compared to other variables sleep proves to be stronger

predictor of health status. The total health status is a compiled score of both objective and subjective measures of health status taken in this sample. The higher score is indicative of ill health. In this sample Sleep is measured on a 5-point scale in which higher score indicates poor sleep pattern. Sleep inadequacy positively contributes to ill health ($ß = 0.246$). The R^2 value of 0.060 explains 6 per cent variance in health status by Sleep pattern and it shows the contribution of Sleep pattern to health status of the individuals. So it is inferred from the results that poorer the Sleep pattern a person has, poorer will be his/ her health. Table 2 also shows significant contribution of Age ($R^2=0.094$), Physical activity ($R^2=0.105$), Personal history ($R^2=0.114$) and Exercise ($R^2=0.121$) to health status of respondents. The findings are in line with the evidence by Alim (2004) who reported a relationship between lack of sleep and mental health.

Stepwise multiple regression was also carried out by entering Social Support, Total Health Status, Internality, Powerful Others and Chance Factors as predictors and Health Behaviour as dependent variable.

Table 3 shows that health related variables like social support, internality, total health status and Chance Factors of health locus of control emerged as significant predictors of health behaviours. However, none of the other health related variables contributes to health behaviour. When compared to other variables, Social support proves to be better predictor of health behaviour. The health behaviour scale measures various types of health promotive and compromising behaviours in this sample. Here, higher score indicates better health practices. Table 3 shows the positive contribution of Social Support to health behaviour ($ß = 0.361$). The R^2 value of 0.130 explains 13 per cent variance in health behaviour by Social Support and so, it is inferred that more the social support a person has, better will be his/her health behaviours. Table 3 also shows the significant contribution of internality ($R^2=0.140$), total health status ($R^2=0.149$) and chance factors ($R2 =0.154$) to health behaviour of respondents. The addition of

internality explains a further 0.01 per cent of the variance ($R^2=0.140$) in health behaviour of individuals. The addition of total health status explains another 0.019 per cent ($R^2=0.149$) and chance factors explains another 0.024 per cent of the variance ($R^2 = 0.154$) to health behaviour.

The findings are in line with the evidence by Sara et al. (1999) which reveals the association of Social support with dietary behaviour, Similarly, studies done by Yarcheski et al. (1997) showed path coefficient of 0.29, p<. 001 between social support and positive health practices. Earlier study by Hutchinson (1997) reported that health status, health locus of control beliefs and cognitive-perceptual factors exerted a more direct influence in explaining engagement in health promoting lifestyle behaviours. Similarly, a study by May (1995) reveals that the cognitive-perceptual variables (Perceived Health Status and HCS) with their modifying variables (income adequacy, gender, education, and presence of chronic disease) were found to be significant predictors of health promoting behaviour. The study also confirms earlier findings by Mohan and Segal (2002), Nowicki et al. (1997) and Duffy (1997) who have demonstrated a relationship between locus of health and behaviours.

Therefore, the hypothesis stating "Higher the Social Support greater will be the subjective perception of health, general health status and positive is the health behaviour" and "The health locus of control significantly predicts health behaviour, general health status and subjective perception of health," are accepted.

Stepwise multiple regression was carried out by entering Sleep, Age, Physical activity, Personal history, Exercise, Gender, Marital Status, Education, Occupation, Income, Food Habit, and Smoking as predictors and Health behaviour as dependent variable.

Table 4 shows that Socio Demographic Variables like Sleep Exercise and Gender emerged as significant predictors of health behaviour. However, none of the other socio-demographic variables contributed to total health behaviour. When compared

to other variable sleep proves to be better predictor of health behaviour. Sleep negatively contributed to health behaviour (β = -0.163). The R^2 value of 0.027 explains that 0.027 per cent variance in health behaviour is caused by Sleep pattern and it shows the contribution of Sleep pattern to health behaviours of the individuals. So it is inferred from the results that poorer the Sleep pattern a person has, poorer will be his/ her health behaviour. Table 4 also shows significant contribution of Exercise (R^2 = 0.052) and Gender (R^2 = 0.072) to health behaviour of respondents. The findings are in line with the evidence by Piano (1997) who reported that perceived social support, perceived health, and female gender were explanatory variables that related positively with health promotion behaviours and advanced age related negatively with health promotion behaviours.

Taken together the regression analysis throw light on the significant predictors of health status and behaviour. Among the social factors, age, gender and social support are found to be significant predictors while among the psychological factors, internality, belief in destiny, sleep pattern and exercise are found to be significant predictors.

The present findings confirm the theoretical prepositions of health belief and social context model on health. The study result shows that psychosocial factors like social support, cognitive factors like chance and internal health locus of control significantly predicted the health status and health behaviour. Since the majority of the subjects in the survey group were young adults (Mean age = 25.53) and socialization is high during this period therefore health which is an asset, which cannot be attained without socialization. Thus, the feeling of sense of support of the subjects in this study predicted the health status and health behaviours. Earlier study by Yarcheski et al. (1997) among adolescence confirmed social support as a predictor of health status and health behaviours. A study by Piano (1997) on older population also showed positive relationships of perceived health status with perceived social support (r =. 3016), and health promotion

behaviours (r = .852). This finding further confirms that irrespective of age social support is a significant positive predictor of health.

Cognitive factors like chance factors of health locus of control significantly predicted the health status and internal health locus of control significantly predicted health behaviours. These findings were in line with the earlier findings by Mohan and Segal (2002), Nowicki et al. (1997) and Hutchinson (1997) who have shown correlation between health locus of control and health behaviours and health status. The present sample was selected from Indian population where belief in external factors like fate and luck etc is more prevalent. In health status also these beliefs plays a vital role. But irrespective of cultural difference individuals internality was the significant contributor for health promotive behaviours.

Among Socio demographic determinants the Sleep pattern, Age, Exercise, Gender are found to be significant predictors of health status and health behaviour. Sleep pattern quality and physical activity or exercises are two important life style factors influencing even adult health and behaviour. Even among the younger sample studied, the pattern is similar. The age and gender are two important demographic factors influencing many health behaviour. These must be clearly understood while planning health promotion. Knowledge about basic daily activities across age and gender must be taken into consideration while promoting or monitoring health.

In conclusion, it can be said that social support, chance health locus of control and Health behaviours predicted the health status, whereas the internality, powerful others health locus of control did not contribute significantly to the Health status.

Sleep, age, physical activity, personal history and exercise were significant predictors to health status. Other factors like gender, marital status, education, occupation, income, food habit, and smoking did not predict the Health Status.

Social support, internality, total health status and chance health locus of control predicted the Health behaviour whereas the powerful others health locus of control did not contribute significantly to the health behaviour.

Sleep, exercise and gender were significant predictors to health behaviour. Other factors like physical activity, personal history, marital status, education, occupation, income, food habit, age and smoking did not predict the Health behaviour.

Generally, health researchers so far have focused on identifying diseases, negative trait, and ill health components for health interventions. This study emphasis on positive approach to health in identifying the components of health. The study has a significant contribution in understanding the role of social support, health behaviour, and health belief predicting the health status of adolescents and young adults. Thus, it addresses globally and holistically, the psychosocial health of young adults.

REFERENCES

Adame, D. D., Johnson, T., & Cole, S. P. (1989). Physical Fitness, Body Image and Locus of Control in College Freshman Men and Women. *Perceptual and Motor Skills, 68,* 400-402.

Adame, D. D., Johnson, T. Cole, S. P., Matthiason, H. & Abbas, M. A. (1990). Physical Fitness in relation to amount of Physical Exercise, Body Image and Locus of Control among College Freshman Men and Women. *Perceptual and Motor Skills, 70,* 1347-1350.

Adams, P. J. (1997). Skin cancer education increases knowledge, not precautionary practices, among college coeds. *Dissertation Abstracts International: Section B: The Sciences and Engineering. 57,* 5314.

Alim, F. (2004). A pattern of mental health in age group(14–17 years). Paper Presented at *8th International and 39th National Conference of the IAAP on Positive Health and Wellbeing, July 15- 17.*

Coates, V.E., & Boore, J.R.P. (1995)., Self Management of Chronic Illness: Implication Fof Nursing. *International Journal of Nursing Studies. 32,* 628-640

Cohen, S., & Wills T.A. (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin. 98,* 310 - 357

Duffy, M. E. (1997). Determinants of reported health promotion behaviours in employed Mexican American women. *Health Care for Women International. 18,* 149-163.

Fry. P.S., & Barker. L.A. (2002). Quality of Relationships and Structural Properties of Social Support Networks of Female Survivors of Abuse. *Genetic, Social, and General Psychology Monographs. 128,* 139-163.

Hagerty, B.M. & Williams, R. A. (1999). The Effects of Sense of Belonging, Social Support, Conflict, and Loneliness on Depression. *Nursing Research. 48.*

Hurrelmann, K. (1990). Health promotion for adolescents: Preventive and corrective Stategies against problem behaviour. *Journal of Adolescence, 13,* 250.

Hutchinson, K. C. (1997). Factors that predict health promoting lifestyle behaviours among African American university students. *Dissertation Abstracts International: Section B: The Sciences and Engineering. 57,* 4298

May, F.E. (1995). Differences in health promotion behaviour as a function of health conception and presence of chronic illness. *Dissertation Abstracts International: Section B: The Sciences and Engineering. 55,* 3818.

Miller, A.M., & Iris, M. (2002). Health promotion attitudes and strategies in older adults. *Health Education and Behaviour. 29,* 249 - 267

Mohan, J. & Segal, P. (2002). A Study of Stress, Coping and Health Cognitions of Adolescents. *Paper Presented at 6th International, 37th IAAP and 3rd PPA conference,* 5-7 January.

Nowicki, S., Dan, J.R., Thomas, A., Johnson, C., & Cole, S. P. (1997). Physical Fitness as a function of Psychological and Situational factors. *The Journal of Social Psychology, 137,* 549-558.

Piano, L.A. (1997). Perceived health status and health promotion behaviours of those eighty five years and older: Relationship of social support. *Dissertation Abstracts International: Section B: The Sciences and Engineering. 58,* 2960.