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In this issue of the *Journal of Indian Health Psychology* there are thirteen research articles, two short communications and a book review. This issue is devoted to diverse kind of empirical investigations in the field of health psychology.

The first article by Muni Ram and NovRattan Sharma assessed and compared the suicidal ideation among the students of professional and non-professionals courses. The authors have reported that professional students expressed more suicidal ideation as compared to non-professional and female students in both type of courses showed greater suicidal tendency as compared to males. They have further emphasized upon the need of psychological interventions especially for the students to deal effectively with the increasing suicide ideation. In the next article, Akbar Husain have made an attempt to develop a comprehensive scale of Health, Holistic Health Scale (HHS), with eight domains of health, namely, economic, emotional, environmental, mental, physical, social, societal, and spiritual. The following study enlisted in the current issue by Krishna Kumar Mishra examined the contribution of optimism as a determinant to predict health. Nazirul Hasnain, Mohammad Imran and Muhhsina Lubaiba K M Asif compared Well-being and Self-esteem of children of working parents of Delhi and Kerala. Lakshya Rawat, Pragyendu, Mahesh K. Darolia and Soaham Bharti studied Identity Crisis and Self-monitoring in Indian adolescents. In the next article, Sarita Sood and Arti Bakhshi have reported significant contribution of each dimension of Psychological Capital in development of Subjective Vitality. Jaya A. T and Chandana D. Karathully in this article have examined the relation between dietary preferences and the inattention, hyperactivity and impulsivity in children between the ages of 5 to 15 years. Salma Kaneez assessed the adolescents’ knowledge of life-style related chronic diseases and its association with their health habits and health behaviour /care. In the next article enlisted in this issue, Ranjana have found family environment as a significant predictor of the Big Five personality dimensions and emotional intelligence. The next article have examined Executive functioning in children with learning disabilities and concluded that verbal working memory is the most important neuropsychological correlate of learning disability. In the last article, Zeba Qamar have addressed a very sensitive issue of child abuse and
aimed to study emotional-instability, emotional-regression and social-maladjustment of those girls who have experience sexually abuse during their childhood. This issue includes a short communication by Vedagiri Ganesan on Behaviour technology for effective management of gays, lesbians and queers. Another short communication by R. Santhanakrishnan also focused on Behaviour technology and found significant enhancement in the Emotional Intelligence of the industrial workers with the application of Behavior technology. We are thankful to all contributors for contribution of their articles in this issue.

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Suicidal Ideation among Students of Professional and Non-professional Courses: A Health Threat

Muni Ram* and NovRattan Sharma**

ABSTRACT

Suicidal ideation often occur as a response to a situation that the person views as overwhelming, such as social isolation, death of loved one, hopelessness, academic and parental pressure, serious physical illness, financial problem, guilt feeling, loving affair, alcohol consumption and negative life events. Suicidal ideation has become a threat to general health status of the public and there is a need to understand its spread. The present study was planned to assess and compare the suicidal ideation among the students of professional and non-professionals courses. The sample of the study involved 300 college students (150 professional and 150 non-professionals) between the age ranges of 16 to 24 years. The students were assessed with Suicidal Ideation Questionnaire (Reynolds, 1987). The data were analyzed by using statistics-mean, SD and t-test. The results showed that (i) Professional and non-professional group of students differ significantly on suicidal ideation. (ii). Male and female students of professional group differ significantly on suicidal ideation. (iii). Male and female students of non-professional group differ significantly on suicidal ideation. The educational institute needs to take appropriate psychological steps to deal effectively with the increasing suicide ideation among students.

Key Words: Social isolation, Suicidal ideation, Suicidal behaviour.

Health is a multi-dimensional concept many factors contribute to its outcome. Thinking of an individual directly affects the psycho-social health. Suicidal ideation is a first threatening sign of serious suicidal behavior. It is particularly defined as the domain of ideas and thoughts about suicide or death and serious self-injurious

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behavior. It consists of thoughts which are closely related to the conduct, planning, and outcome of suicidal ideation, particularly as the last relates to thoughts about the response of others. Researcher has focused on suicidal behavior as a distinct form of psychological disturbance and a domain of suicidal behaviour. There are lots of factors may contribute to suicidal ideation of an Adolescent, including daily hassle, personal and societal factor as well as the interaction amongst these variables. Furthermore, suicide or purposeful self-harm, an event considered as more of a cultural or social fact is recently recognized as a community health problem in most of the nations.

Individuals attempt to resolve the issue of identity versus role confusion throughout the period of teenage. Teenagers to reply the question “Who am I” in order to set up uniqueness in context to communal, sexual, philosophical as well as occupational realms. According to Lock and Steiner (1999) adolescents frequently face substantial strain in the diversity of circumstances because adolescents challenge to counterfeit the identity. For instance, the altering sexual roles of male and female may strengthen confusion in identity. In adding, ecological stresses i.e. stress in parents for educational attainment, relatives ‘agility, drug accessibility and pressure of peer may steer to depression (Capuzzi,1994). Suicides appear after pressure; intellectual irresponsibility and emotionless attachment act together and overcome capability of individuals to manage as well as to reason undoubtedly. Extra pressure associated to parents was reported significantly in adolescents who had committed suicide. Generally in adolescents, complaints related to mood disturbance are found (Archer and Slesinger, 1999).

According to literature, lack of parents/no availability, bad contact among members of family, family clashes, more expectation of parents regarding success as well as obvious family pathology are usually measured important hazardous aspects for suicide. Suicide ideation relates with psychosocial suffering, drugs consumption, pressure of family and unclear school objectives (Thompson, 1994).

Causative Factors for Suicide

Suicidal ideation often occur as a response to a situation that the person views as overwhelming, such as social isolation, death of loved one, hopelessness, academic and parental pressure, serious physical illness, financial problem, guilt feeling, loving affair, alcohol consumption and negative life events. Juon, Nam and Ensminger (1994) analyze causative factors of suicidal ideation in 9886 high school Korean youngsters study revealed that students who reported feeling a soaring level of tension concerning scholistic achievement and higher education were more possibility to have severe feelings about suicide ideation than those students who did not face academic stress. Similarly, in Singapore, educational hurdles were also found to be one of the predictors of suicide behavior among a population of adolescent suicide attempters as well other factors. School troubles accounted for 11% of youths who attempted suicide in Singapore. In adding to
students putting enormous stress on themselves to do extremely well in school, they were also aware of the requirement to fulfill familial obligations and live up to the desires of parents and teachers. Taken together, experimental facts towards scholastic pressure and in particular academic expectations is contributing to suicidal behavior in youth especially in East Asia.

Toero, Negy Sawaguchi and Sotonyi (2001) found that there is positive correlation between academic pressure in school/colleges and suicidal ideation. It denotes that in exam time numerous suicidal cases are appeared and stress level of the students are also high at that time. In this age academic performance is highly valued for them and if they do not reach the level of their expectancy that could leads to suicidal ideation. Unhealthy surroundings in schools, i.e. stress for academicals achievement and related stress for Grade-twelve students in finding employment after completion of schooling, is associated with enhancement of alcohol consumption between youngsters (Coker and Borders, 2001; Kwon Hoo, 2002). The consumption of alcohol as well as new substances act as a threat factor in suicide ideation, which ultimately prompts the adolescent to self-injurious performances (Gilliland and James, 2001).

**Suicide Ideation in Adolescents**

During the adolescent period many changes also occurs like, cognitive, physical, biological and emotional. Due to these changes there are changes in role and responsibility as well. In order to manage these changes students have to face with problems and conflicts (Asari, 2002). In adolescents period, students are not able to adjust their self due to their changes creates stress and tension. If students face this stress and tension in early stages, it may lead them towards the mental pressure (Newman, 2005).

When the student is joining the college for first time then he has to leave his family and friends. He has to face a new and unknown challenging environment which is not easy for him. In this new environment there are many significant development issues for him. As compared to school, college life has more social and academic pressure. There are numbers of stressors identified in the students like too many assignments, lack of pocket money and competition with other students. These all above stressors leads a student’s towards the suicide ideation. Students have poor relationship with other students, teachers, family members, inadequate resources and semester system in exam to perform academic performance disorganized the students and less able to cope up thus resulting in stress related problems. (Mishra and Mckean 2000; Polychronopoulou and Divaris, 2005; Erkutlu and Chafra, 2006).

**Rational of the Study**

Reynolds and waltz (1986) findings suggest that adolescents frequently find themselves under tremendous stress. Problems most often occur when stressors
at home, school, and with peers occur within a context of minimal social and emotional support. These problems are further exacerbated when there is a lack of coping strategies, or when behavioural deficits or dysfunctions exist. Furthermore, those adolescents are at greater risk for suicide when they are experiencing major negative life events, having a lot of “hassles”, and have little social support. Realizing suicidal ideation as a health threat, present study was planned to assess the suicidal ideation among the students.

The main objectives of the study are:
1. To assess and compare the Suicidal ideation of male and female students of Professional and Non-Professional courses.
2. To assess and compare the Suicidal ideation of male and female students of Professional courses.
3. To assess and compare the Suicidal ideation of male and female students of Non-Professional and courses.

The proposed Hypotheses of the study are:
1. There would be no significant difference between students of Professional and Non-Professional courses at the level of suicidal ideation.
2. There would be no significant difference between male and female students of Professional courses at the level of suicidal ideation.
3. There would be no significant difference between male and female students of Non-Professional courses at the level of suicidal ideation.

METHOD

Sample
A total of 300 subjects (168 males & 132 females) participated in present study to fulfill the requirement. Participation of the subjects in the present study was voluntary and informed consents were obtained from all the subjects. All subjects were of the age between 16 to 24 years and from professional and non professional courses institutions. 150 students were selected from professional courses and 150 students were selected from Non-Professional courses institutions. The sample was selected on the basis of availability. Data were gathered from various districts of Haryana i.e. Hisar, Rohtak, Ambala and Panchkula.

Tools
Following tool was used for the purpose of data collection.

Suicidal Ideation Questionnaire: The scale for suicidal ideation was developed by William M. Reynolds (1987). The Suicide Ideation Questionnaire (SIQ) does provide a measure of the seriousness of suicidal thoughts in adolescents. The Senior High School Version of SIQ consists of 30 items, the
respondent rates the SIQ items on a 7-point scale which assesses the frequency with which the cognition occurs. This test takes five to ten minutes to complete. The SIQ is designed to provide a reliable and valid estimate for identify individual’s current level of suicidal ideation or suicidal risk. The SIQ does provide probability estimates of risk for completed suicide or suicide attempts. Given the variability in individuals, personalities, self-control, motivations, numbers of stressors and family and support structures, subscribing a numerical probability for suicide is not a realistic possibility. The scale assesses the extent of suicidal thoughts and their characteristics as well as the subject’s attitude towards them. SIQ has been found to psychometrically potent tool to assess suicidal ideation across the world.

**Procedure:** The data was collected in small group i.e. only 25 to 30 students participated in one session. The subjects were contacted personally in their respective educational institutions for data collection after obtaining permission from the institute authorities. At the first, the investigator approached the subjects in various institutions and a good rapport was established for creating congenial environment to make them comfortable and to extract authentic information from them. The selected subjects were requested to answer frankly and honestly as the information provided by them was to be kept confidential and would only be used for research purposes. When the subjects were comfortable and ready to answer then after obtaining consent of the subject to act as respondent, firstly following instructions were given: “you will be given one questionnaire in which there are some personal questions regarding your personal data and you have to respond on the basis of your preference. Please read questions carefully before filling the information. The questionnaire i.e. Suicidal Ideation Questionnaire (SIQ) will take five to ten minutes to complete and you have to fill it rapidly. Success of present work directly depends upon your valuable cooperation and sincerity”.

The test was administered by following instructions specified in the test manual.

**Statistical Analysis**

For analysis of the scores descriptive statistics (mean, SD), t-test were computed for the scores of the entire sample. The scores of these groups (professional/non-professional, male/female) were analyzed by computing mean, SD, and t -test statistics with the help of SPSS 16.0 version.

**RESULT AND DISCUSSION**

Suicidal ideation is considered as an important variable among male and female students of professional and non-professional courses. To see significance of mean difference on suicide, two groups (professional and non-professional) were formed and compared with each other to see the suicidal ideation level among students. In order to check the significance of mean difference, t- test was used.
Table 1: Mean, SD (Standard Deviation) and t-value of Suicidal Ideation among students for professional and non-professionals group.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Group-I (professional, n=150)</th>
<th>Group-II (non-professional, n=150)</th>
<th>t-value</th>
</tr>
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<tbody>
<tr>
<td>Suicidal Ideation</td>
<td>42.20</td>
<td>29.26</td>
<td>3.26**</td>
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On suicide ideation, the mean score of professional subjects was found to be 42.20 and SD score was found 39.62, on the other hand the mean score of non professional group was 29.26 and SD 28.22. The present results indicated that professional group has more suicide tendency as compare to non professional group. The statistical analysis (t= 3.26,p<.01) also indicate that there is a significant difference between professional and non – professional group means. The professional students are showing significantly higher suicide tendencies. The proposed first hypothesis is rejected on the basis of present results. Zhang,Yu and Zhao (2012) conducting a study on medical professional and found that 24.5 percent of medical students have experienced suicidal ideation at one point of time. Agarwal, Rakesh and Chahar (2007) conducted a study on engineering students and found that in India students of engineering and management course are experiencing overload position, unoccupied and self-detachent. All these reports concluded that professional students have more adjustment problems in comparison to non-professional group. Probably the reason may be lack of social support, loneliness specific personality factors cumulative hardships and many more difficulties contributing to poor emotional adjustment of the professional students. The present results indicated that students of professional group have more suicide tendency as compare to non professional group. On the basis of results the first hypothesis is rejected. There is clear evidence that students of professional courses experienced more suicidal ideation as compared to non-professional students.

On the attainment of first objective, the researcher compared the suicidal ideation of male and female students of professional courses.

Table 2: Mean, SD (Standard Deviation) and t-value of suicidal ideation for male and female students in Professional group.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Male, n=84</th>
<th>Female, n=66</th>
<th>t-value</th>
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</thead>
<tbody>
<tr>
<td>Suicidal ideation</td>
<td>33.00</td>
<td>53.90</td>
<td>3.31**</td>
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</table>

**p<.01
On suicide ideation, the mean score of male subjects was found to be 33 and SD score was found 36.03 on the other hand the mean score of females’ sample 53.9 and SD 41.12 respectively. The present results indicated that female have more suicidal tendency as compare to male students in professional group. On the basis of mean differences, female students of professional courses explored more suicidal ideation as compared to male students. Mean comparison on the basis of t- test also indicate that female students of professional courses have shown significantly higher suicide ideation scores. Nisbet (1996) conducted a study to assess whether a ‘model of social support’ can assist in lowering the suicidal rate in black females, however findings suggested that females had greater suicidal attempt as compare to males. Mazza and Reynolds (1998) conducted the longitudinal study to investigate the relationship of psychological and social-environmental factor with adolescent suicidal ideation in student. Findings indicate that daily hassles and negative life event for male and social support and depression for female were a significant factor related to suicidal ideation. In another current study by Akhtar and Alam (2015) revealed that there is no significant difference in suicidal ideation as far as gender is concerned. On the basis of present results the second hypothesis is rejected. There is clear evidence that female students of professional courses experienced more suicidal ideation as compared to male students.

The third and final objective of the study was to compare the male and female students of non-professional courses on suicide ideation.

**Table 3: Mean, SD (Standard Deviation) and t-value of suicidal ideation for male and female students in Non-Professional group.**

<table>
<thead>
<tr>
<th>VARIABLE</th>
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<th>SD</th>
<th>Mean</th>
<th>SD</th>
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<td>Total N=150</td>
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<td></td>
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<tr>
<td>Male, n=85</td>
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<td></td>
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<td>Female, n=65</td>
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<tr>
<td>Suicidal ideation</td>
<td>20.9</td>
<td>26.01</td>
<td>40.2</td>
<td>27.3</td>
<td>4.3**</td>
</tr>
</tbody>
</table>

**p<.01

On suicide ideation, the mean score of male subjects was found to be 20.9 and SD score was found 26.01 on the other hand the mean score of females’ sample 40.2 and SD 27.3 respectively. The present results indicated that female have more suicidal tendency as compare to male students in non-professional group also on the basis of mean differences. The statistical treatment to the data highlighted the significant mean differences in suicide ideation scores of male and female students of non-professional courses. Hyun, Karen, and Eun (2006) examined the role of different gender in suicide ideation. As a result of the multivariate analysis most important factors leading to suicide ideation in females were depression hostility, sexual direction, and self-respect. Fernando, Ostbye, Woods and Abeyagunawardana (2007) compared the prevalence of suicide ideation...
and deliberate self-injury in youngsters’ males and females on high school children using a self-report, anonymous questionnaire in the local language. Results concluded that females reported suicidal ideation at least once in their lifetime more frequently than males (12.1% vs. 6.5%). Furthermore, twenty-two (3.7%) females and 13 (3.5%) males reported that they had deliberately sought to harm themselves at least once in the 12 months preceding the survey. Sulaiman, Hassan, Sapian and Abdullah (2009) found in their study that females students experience stress differently compared to the male students. This may be because female students tend to be more emotional and sensitive toward what is happening in their surrounding”. Skinner and McFaul (2012) in a longitudinal study published by the Canadian Medical Association Journal, which looks at suicides by boys and girls over a thirty year period (1980-2008), there has been a modest decline in suicide for boys aged 10-19 years and a slight rise for girls in the same age rage. Girls have always attempted suicide more frequently than boys; however, there is reason to believe that girls are increasingly using more lethal means like hanging, when attempting suicide which could account for the increase in suicidal deaths. A survey conducted by a Mental health organization in 150 educational institutions in New Delhi found that 40% of students feel overwhelmed by exams. Another study conducted by a non-governmental organization with 850 students found that 57% were depressed and 9% had considered committing suicide as a result of academic stress (Maheshananda, Bera, Gore, Bhogale, Kulkarni, Thakur, 2012). On the basis of findings the third hypothesis is rejected. There is clear evidence that female students of non-professional courses experienced more suicidal ideation as compared to male students. In this way, all the three objectives are attained and the corresponding null hypotheses are rejected. The findings further emphasized that some immediate steps may be taken up in all the educational institutions otherwise it will be a very serious threat to general health of students.

CONCLUSION

Present paper focused on to assess and compare suicidal ideation among male and female students of professional and non professional courses. On the basis of present findings it may conclude that professional students expressed more suicidal ideation as compared to non-professional as well as female students in both type of courses shows greater suicidal tendency as compared to males.

REFERENCES


DEVELOPMENT OF HOLISTIC HEALTH SCALE

Akbar Husain*

ABSTRACT

A number of measures are available for the assessment of health and well-being. The present investigator has made an attempt to develop a construct that could assess more dimension of health in addition to the domain suggested by WHO, namely, physical, mental, social and spiritual. The Holistic Health Scale (HHS) comprised of 78 items with eight domains of health, namely, economic, emotional, environmental, mental, physical, social, societal, and spiritual. Cronbach coefficient Alpha of HHS was found to be 0.946. The operational definitions of the eight dimensions of holistic health are described here for a clear understanding of the model.

The main objectives of the present study are:

1) To develop an objective measure for the assessment of holistic health.
2) To determine the psychometric characteristic viz., reliability of the scale.

The 80 items representing to the eight dimensions of health were subjected to CFA using the Structural Equation Modeling program AMOS 4.01. Fit indices for the 78 item model representing to the eight dimensions of HHS and overall indicated a good fit. In addition, internal consistency was found to be highly reliable for all the dimensions of HHS.

Keywords: Holistic health scale; Quality of human life; Structural equation and modeling program

Health is a determinant factor of the quality of human life. It is a critical component of well-being. A weakness in health easily leads problems in any other component of well-being. Human beings do not have only body and mind; but also have soul or spirit. We know that our heart has physical functions; but there is no scientific evidence to prove that it does not have any spiritual function. The soul probably resides in the heart or is attached to it. Soul is the inner dimensions of our being.

* Professor, Department of Psychology, Aligarh Muslim University, ALIGARH-202002.
Health is a multidimensional construct. The factors which influence health lie within the individual and externally in the society and environment in which an individual lives. An individual’s health may be affected by a number of factors such as heredity, environment, lifestyle, social, socioeconomic, etc. The WHO definition of health introduces the concept of well-being. In the WHO definition, a state of physical, mental and social well-being is the major concern. The well-being of an individual can be assessed by means of objective and subjective components. The objective components relates well with the “standard of living” and “level of living”, whereas the subjective component of well-being is referred as “quality of life.”

Almost daily, the mass media such as the television and newspapers, and magazines, remind us the importance of maintaining holistic health. It is therefore, crucial to develop a measure for the assessment of holistic health and to understand the dimensions that are important in the health maintenance behavior.

In general, five aspects of health have been explored in the literature. They are: social, physical, mental, spiritual, and intellectual. However, the present study considers eight dimensions of health. No such measure is available to assess the holistic health.

**Components of Holistic Health**

All the components of health are important for the maintenance of holistic health. Holistic health includes all the efforts spent on achieving optimal physical, social, mental, spiritual, emotional, societal, economic and environmental aspects of health.

The development of the Holistic Health Scale (HHS) followed a preliminary step of reviewing the literature for relevant material regarding various concepts of health. The primary literature sources were in the fields of psychology and sociology. From this endeavour, the concepts of health were identified and theoretically described. The identified concepts of health are considered the dimensions of holistic health. The operational definitions of the eight dimensions of holistic health are described here for a clear understanding of the model.

**Economic Health:** It deals with financial burden of health care to an individual with special reference to quality care and costs of health services, health policy planning and implementation.

**Emotional Health:** This refers to the power of feelings and emotions, thoughts, and behaviors that keep a person healthy overall level. People who are emotionally healthy are in control of their thoughts, feelings and behaviors. This is essential to mental health. This is something that you feel and think in improving your health-related quality of life.

**Environmental Health:** WHO defined environmental health as “those aspects of human health and diseases that are determined by factors in the
environment? It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect health.” Environment health also affects the health and well-being of the broad physical, psychological, social and aesthetic environment which includes housing, urban development, land use and transport.

**Mental Health:** It has been considered as an important factor influencing individual’s various behaviors, activities, well-being and performance. In recent years, mental health has been described in more positive terms not merely as the absence of mental illness. For the purpose of the development of holistic health scale, mental health can be defined as person’s ability to cope life stresses, to make adequate adjustment, positive self-evaluation and maintain temperance.

**Physical Health:** This refers to the absence of illness or infirmity. With the physical exercises, the soul or spirit becomes strong and healthy. Exercise helps people to feel better physically and mentally. Among the factors unhealthy eating, lack of physical activity, excessive alcohol use, obesity, smoking are seen as the most important health threats.

**Social Health:** It characterizes when a person finds a balance between his life goals, values, belief system and relationship with others or to care meaningfully others. It is the ability to maintain social adjustment or to socially considerate behavior.

**Societal Health:** It may be defined as the ability to make adjustments to the society/community on the level of development. Societal health is determined by the prevailing health thinking in a society. In the present context, societal health we mean how much an individual is loaded with responsibilities to maintain and improve other’s health in terms of healthy living.

**Spiritual Health:** It is related to the spirit or sacred matters. Human beings do not have only body, mind, and also have soul or spirit. The spiritual health depends on our success both in this world and hereafter as well. Spiritual health is an integral part of holistic health.

**Previous Studies**

Nazam (2013) used Holistic Health Scale (HHS) developed by Husain (2009) to measure holistic health of male and female teachers of Aligarh Muslim University (AMU). One hundred eighty teachers (90 female, 90 male teachers) were drawn from the different faculties. Main findings of the study were as follows: Male and female teachers did not differ significantly on seven dimensions of holistic health, namely, economic, emotional, environmental, mental, physical, social and societal and they did differ significantly on spiritual domain. Female teachers scored higher than male teachers, though not significantly on the overall scores obtained on HHS.

Nandal, Sharma and Yadava (2014) have found association between different dimensions of holistic health with different religious groups. In Hindu sample,
significant associations were not observed regarding the concerned variables. In Muslims group, significant positive association was found on societal health dimension. In Sikh group significant positive associations were observed on societal and spiritual health dimensions. On the other hand, the Christian groups showed significant positive association with emotional and physical health dimensions. However, the investigators have not observed the strong relationship between rituals and holistic health but emotional societal and spiritual health have been found to be associated positively and significantly.

The result of total group explains that the subjects express positive and significant associations on, economic, environmental societal health. In Hindu sample it seems that subject experience greater economic health. In Muslims group, significant positive associations can be observed on economic and physical health dimensions and negative but significant associations on emotional and environmental health. No significant associations was found in Sikh group. In the Christian group, significant positive association with physical, societal and spiritual health dimensions were observed.

Research Objectives

The main objectives of the present study are:

1) To develop an objective measure for the assessment of holistic health following the confirmatory factor analysis.
2) To determine the reliability of the scale.

METHOD

Participants and Procedure

Three hundred thirty post-graduate students of the Faculty of Education, University of Malaya participated in this study. Participants were 165 male and 165 female. They belonged to three ethnic groups, namely, Muslim-Malay, Indian Hindu, and Chinese Christian. The age range of the participants was from 25 to 35 years. Participants were administered the 80 items Holistic Health Scale (HHS).

Measure

Development of Holistic Health Scale Ninety items were initially generated by the investigator in the Postgraduate course titled Instrument Design and Item Development (No. PPGS 6322). The author of this paper and four teachers of the Faculty working in the discipline of Psychology and Physical Education evaluated these items and placed equal number of items i.e. 10 in the eight dimensions of health: Economic Health, Emotional Health, Environmental Health, Mental Health, Physical Health, Social Health, Societal Health, and Spiritual Health. Finally 80 items were retained. Out of 80 items, there are 25 negative items and the remaining 55 items are positive. Items representing to the eight dimensions of HHS are given below.

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Development of Holistic Health Scale

Economic Health: 12, 24, 26, 36, 43, 51, 53, 57, 63, 70
Emotional Health: 1, 22, 27, 38, 50, 61, 62, 68, 72, 76
Environmental Health: 6, 7, 9, 23, 25, 28, 49, 54, 65, 76
Mental Health: 13, 18, 31, 33, 40, 47, 60, 74, 77, 80
Physical Health: 10, 29, 32, 34, 37, 56, 66, 71, 73, 78
Social Health: 2, 8, 14, 15, 30, 39, 41, 45, 55, 79
Societal Health: 3, 16, 17, 20, 35, 44, 48, 52, 59, 69
Spiritual Health: 4, 5, 11, 19, 21, 42, 46, 58, 64, 75

Negative Items: 12, 13, 19, 21, 28, 30, 31, 33, 40, 45, 47, 50, 52, 54, 60, 61, 65, 66, 67, 68, 73, 76, 77, 79, 80. These items are to be scored in reverse direction.

The HHS comprised 80 items with a five point Likert scale. Cronbach coefficient Alpha of HHS was found to be 0.946. Cronbach coefficients Alpha for the economic health domain 0.61, emotional health domain 0.61, environmental health domain 0.65, mental health domain 0.74, physical health domain 0.78, social health domain 0.59, societal health domain 0.84 and spiritual health domain 0.75 were found to be highly reliable.

Data Analysis

The 80 items representing to the eight dimensions of health were subjected to CFA using the Structural Equation Modeling program AMOS 4.01. The internal consistency reliability of the scale was determined by Cronbach alpha. The SPSS 16.0 version was used to analyze the data.

RESULT AND DISCUSSION

Table 1: Indicating Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Health</td>
<td>46.94</td>
<td>7.56</td>
<td>330</td>
</tr>
<tr>
<td>Emotional Health</td>
<td>34.71</td>
<td>5.13</td>
<td>330</td>
</tr>
<tr>
<td>Environmental Health</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: Summary of Fit Index for Confirmatory Factor Analysis on Eight Dimensions of HHS

<table>
<thead>
<tr>
<th>Dimension of HHS</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>TLI</th>
<th>CFI</th>
<th>IFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH</td>
<td>0.922</td>
<td>0.869</td>
<td>0.878</td>
<td>0.869</td>
<td>0.902</td>
<td>0.903</td>
<td>0.103</td>
</tr>
<tr>
<td>Emo H</td>
<td>0.950</td>
<td>0.921</td>
<td>0.745</td>
<td>0.788</td>
<td>0.835</td>
<td>0.841</td>
<td>0.061</td>
</tr>
<tr>
<td>En H</td>
<td>0.932</td>
<td>0.893</td>
<td>0.884</td>
<td>0.933</td>
<td>0.948</td>
<td>0.949</td>
<td>0.046</td>
</tr>
<tr>
<td>MH</td>
<td>0.952</td>
<td>0.924</td>
<td>0.825</td>
<td>0.859</td>
<td>0.890</td>
<td>0.893</td>
<td>0.063</td>
</tr>
<tr>
<td>PH</td>
<td>0.929</td>
<td>0.889</td>
<td>0.850</td>
<td>0.856</td>
<td>0.888</td>
<td>0.889</td>
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<tr>
<td>SH</td>
<td>0.967</td>
<td>0.948</td>
<td>0.912</td>
<td>0.954</td>
<td>0.965</td>
<td>0.965</td>
<td>0.043</td>
</tr>
<tr>
<td>Soc H</td>
<td>0.952</td>
<td>0.920</td>
<td>0.946</td>
<td>0.953</td>
<td>0.965</td>
<td>0.953</td>
<td>0.073</td>
</tr>
<tr>
<td>SH</td>
<td>0.939</td>
<td>0.905</td>
<td>0.914</td>
<td>0.922</td>
<td>0.940</td>
<td>0.940</td>
<td>0.079</td>
</tr>
</tbody>
</table>

- **GFI** - GOODNESS OF FIT INDEX
- **AGFI** - ADJUSTED GOODNESS OF FIT INDEX
- **NFI** - NOUNED FIT INDEX
- **TLI** - TUBER LEUNIS INDEX
- **CFI** - COMFARATIVE FIT INDEX
- **IFI** - INCREMENTAL FIT INDEX
- **RMSEA** - ROOT MEAN SQUARE ERROR OF APPROXIMATION

Author assessed goodness of fit with a variety of fit indices. Finch and West (1997) recommended scores below .90 indicate acceptable fit. Whereas Browne and Cudeck (1993) considered the root-mean-square error of approximation (RMSEA) on which values below .10 indicate adequate fit. Following these recommendations.
Development of Holistic Health Scale

criteria, two items (one representing to the economic health and one representing to the societal health) were first eliminated because they reduced model fit.

There was a tension between achieving the best model fit and including all the dimensions of holistic health scale. The model that appeared to best balance concerns regarding model fit and internal consistency comprised 60 items in the six dimensions of HHS and 9 items in the economic health and 9 items in the societal health dimensions of HHS. Fit indices for the 78 item model representing to the eight dimensions of HHS are presented in Table 1 and overall indicated a good fit. In addition, internal consistency was good for all the dimensions of HHS.

CONCLUSION

Health is one of the most important aspects of human development. Extensive empirical support need for the validation of this scale. The HHS may be considered as the beginning point for the overall assessment of individual health.

Author looks forward to finding out more from studies that may be associated with various dimensions of holistic health. The advantage of focusing on holistic health is that people can be motivated to enhance the attitude towards the maintenance of health and see the subsequent effects on holistic health that can be directly measured. By advancing the focus of research on holistic health, we will be in a better position to apply scientific rigor to the various domains of holistic health and to highlight findings that will be applicable to the general people.

REFERENCES


DISPOSITIONAL OPTIMISM AND HEALTH

Krishna Kumar Mishra*

ABSTRACT

Research conducted on the relationship of health with optimism is seen to be restricted only to the physical and psychological determinants at large. As world health organization define the health and emphasized the relevance of social well-being in health with physical and psychological well-being, there is a need to include social well-being as one of the indicators of health status and then calculate the effect of optimism on health of any individual. A study designed to fill this unseen gap in the literature. Males and females of 15 to 70 years age were included in the study. Hindi version of WHOQOL-Bref Questionnaire and Satisfaction with Life Scale (SWLS) were used to assess the overall health status of the respondents. Life Orientation Test – Revised (LOT-R) was used to assessing the level of optimism. Analysis of data shows that optimism is positively related with life satisfaction and quality of life and optimism has significant unique effect of life satisfaction and quality of life.

Keywords: Dispositional optimism, Heath related quality of life, and Life satisfaction.

Optimism is defined as a tendency to expect favorable outcomes. Research has demonstrated that there are individual differences in global optimism – that is, some individuals are more inclined than others to expect good things across a variety of life domains. A global, dispositional tendency to be optimistic will typically manifest itself in a variety of more specific beliefs tied to particular times, situations, or life domains; and over and above any dispositional tendency, optimistic or pessimistic beliefs may be activated or diminished by short-term factors (for example, people in happy or angry moods are more optimistic than people in fearful moods). Optimism and pessimism are generally conceptualized as opposite sides of a continuum. When this entry refers to “optimists” or “pessimists” that is used as shorthand for relative differences along such a continuum, not for qualitatively different types of people.

* Department of Humanities & Social Sciences, Indian Institute of Technology Kanpur, INDIA
Research on dispositional, global optimism helps paint a picture of the personality traits and outcomes typically associated with being an optimist. This research has shown that optimists tend to have somewhat higher levels of extraversion and self-esteem, and lower levels of neuroticism, stress, anxiety, and hopelessness. Optimism is associated with a number of favorable outcomes in various domains of physical health and psychological functioning. For example, optimism assessed prior to a stressful transition has been shown to predict fewer physical symptoms in patients and better immune system functioning during the transition. Optimism is also correlated with lower depression, fewer mood disturbances, and fewer negative interpersonal interactions. Optimism has been shown to predict less negative affect, depression, and stress during major life transitions.

RELATIONSHIP OF OPTIMISM WITH PHYSICAL AND PSYCHOLOGICAL WELL-BEING

Well-being is an essential component of mental health. Well-being reflects a favorable judgment of the quality of a person’s life. Schweizer, Beck-Seyffer, & Schneider (1999) observe that optimism can influence an individual’s sense of well-being. It is logical that an intimate relationship would exist between the nature of a person’s expectations of the future and how the person would evaluate his or her own life. Strassle, McKee and Plant (1999) mentioned that optimism is positively correlated with “life satisfaction, positive physical and mental health, lower frequencies of mental disorders, and self-esteem” (p. 191). Avia (1997) suggested that positive emotions are essential to overall well-being, and that good mood, optimism and satisfaction with one’s life are vital aspects of a healthy personality. Peterson (2000) refers optimism to be linked to good mood. In respect of the psychological or mental benefits, optimism has been found to buffer the effects of daily stressors on self-esteem and burnout in woman executives (Fry, 1995).

Burke, Joyner, Czech, & Wilson (2000) reported that optimists, as opposed to pessimists, display better physical health. Peterson (2000) cited several studies that report positive correlation between optimism and good health. In terms of physical benefits, optimism as a personality attribute has been found to be a significant mediator or moderator of stress levels. Scheier and Carver (1987) proposed that the causal link between optimism and physical health or well-being may be due to the use of more effective coping strategies by optimists when dealing with stress. Other researchers have found that chronically stressed subjects are less optimistic than controls and that both optimism and pessimism are “influenced by environmental circumstances and life experiences” (Robinson-Whelan, Kim, MacCallum, & Kiecolt-Glaser, 1997, p. 1351). In summary, it is evident that empirical research strongly supports the proposition that optimism
is positively correlated with physical and psychological well-being. The empirical
evidence is rapidly accumulating and different areas of human functioning are
constantly being investigated insofar as the benefits of optimism and other
resistance resources are concerned.

The main focus of present study is to examine the contribution of optimism
as determinant to predict health status of an individual. Specifically its influence
on social domain of health. Although it has been studies earlier that optimism
does have significant association with physical and psychological indicators of
health but its interaction with social indicators is less unexplored. In the present
study we tried to calculate the effect of optimism on social indicators along with
physical and psychological ones.

**METHOD**

The basic idea to conduct the present study was to assess social well-being
of an individual along with physical and psychological well-being. To assess the
overall health perception health related quality of life and feeling of satisfaction
with life of an individual were assessed. Quality of life of an individual was
operationalized as defined by World health Organization (1995). According to this
definition QOL is individuals’ perception of their position in life in the context of
culture and value system in which they live, and in relation to their goals,
expections, standards, and concerns. At the individual level QOL is a broad-ranging
concept incorporating one’s physical health, psychological states, level of
independence, social relationships, personal beliefs, and the salient features of
the environment. Feeling of satisfaction with his/her life was operationalized with
the definition given by Shin and Johnson (1978). They defined life satisfaction
as “global assessment of one’s life quality according to his/her chosen critiria”
(p. 477).

**Sample**

The present study was carried out with 426 participants drawn from the
urban and rural settings of Varanasi. Male (N = 212) and female (N = 214)
participants, aged 15 to 70, were included in the present study. The total sample
consists of 208 participants from urban and 218 participants from rural settings.
A quasi random sampling procedure was used to select the participants for the
present study.

**Measures**

In the present study Hindi version of World Health Organization Quality of
Life Questionnaire and back translated version of Satisfaction with Life Scale
was used to assess health perception of the participants. Translated Life Orientation
Test – Revised was used to assess the level of optimism of the participants.

*World Heath Organization Quality of Life Hindi version (WHOQOL- BREF)
Questionnaire:* The Hindi version of the scale used in this study was developed
by Saxena, Chandiramani, and Bhargava (1998). This scale contains 26 items,
which measure four domains of QOL, namely physical health, psychological states, social relationships, and environment. Out of 26 items of the scale, only 24 items are scored. Items 1 and 2 are used as fillers, and not scored. The reliability (r = Cronbach’s Alfa) of this scale was calculated and it ranges from .59 to .85. Confirmatory factor analysis (CFI) revealed a very high validity index of physical health (0.957), psychological states (0.982), social relationships (0.972) and environment (0.922) domains.

Satisfaction with Life Scale (SWLS): This scale was developed by Diener, Emmons, Larsen and Griffin (1985) to measure the life satisfaction of an individual. The scale contains 5 items that assess satisfaction with life as a whole. This scale was given to participants to know how satisfied they were with their life. All 5 items are keyed in positive direction. The inter-item correlations for the five items were: 0.81, 0.63, 0.61, 0.75, and 0.66.

Life Orientation Test – Revised (LOT-R): This test was developed by Scheier, Carver and Bridges (1994). The test measures a respondent’s degree of optimism or pessimism. The LOT-R is a short instrument consisting of 10 items. Only 6 of the 10 items are used to derive an optimism score. The remaining 4 items, (numbers 2, 5, 6 and 8) are filler items. Scheier et al. (1994) report that item-scale correlations range from .43 to .63. Cronbach’s alpha for all six items was .78, reflecting an acceptable level of internal consistency.

Besides collecting data with above mentioned scale, information regarding the participant’s age, residence, mobility, socio-economic status etc. were also obtained.

Procedure
Each participant was informed about the study, and consent for participation in the study was taken. The researcher was individually present throughout the session to make necessary clarification in case there were confusions and queries from the participants. The scales addressed the issues related to people’s life and their satisfaction with it. These issues are prone to encourage social desirability, because participants are emotionally involved with them. Though it was difficult, sincere attempts were made to control this factor to the maximum possible extent. To do this the researcher established rapport with the participants. They were assured of the confidentiality of their responses. They were also told that their names will not be revealed to anyone at any stage of the study.

After the data collection was over, scoring of the responses was done according to the given coding procedure and data files were prepared for analysis. Gender, age, and socio-economic status of the respondents were finalized as variables of interest for the current analysis.

RESULT AND DISCUSSION
Analyses were designed to calculate the descriptive nature of data and to examine the relationships among optimism, life satisfaction and QOL measures.
Further the role of optimism in life satisfaction and different domains of QOL was also examined.

Means, SD and product moment correlation were computed to understand the relationships among optimism, life satisfaction, different domains of QOL. The correlation coefficient among these variables with regard to total sample is present in Table 1.

Table 1: Descriptive statistics and Correlations among Optimism, Life satisfaction and QOL for total sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Optimism</th>
<th>PH</th>
<th>PS</th>
<th>SR</th>
<th>En</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS</td>
<td>23.34</td>
<td>5.94</td>
<td>.146**</td>
<td>.148**</td>
<td>.395**</td>
<td>.232**</td>
<td>.299**</td>
</tr>
<tr>
<td>Optimism</td>
<td>21.02</td>
<td>3.56</td>
<td>.188**</td>
<td>.216**</td>
<td>.246**</td>
<td>.025</td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>14.88</td>
<td>2.44</td>
<td>.353**</td>
<td>.158**</td>
<td>.286**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>14.60</td>
<td>2.61</td>
<td>.453**</td>
<td>.463**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR</td>
<td>9.85</td>
<td>2.63</td>
<td></td>
<td>.310**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>En</td>
<td>14.20</td>
<td>2.30</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Abbreviations (LS = life satisfaction, PH = physical health, PS = psychological states, SR = social relationships and En = environment, OQOL = overall quality of life)

Table 1 shows that optimism is positively correlated with life satisfaction and all domains of QOL namely, physical health, psychological states, social relationships and environment. Optimism is positively related with physical health, psychological states, and social relationships domains not with environment domain of QOL. Domains of QOL are also found significantly inter-correlated.

Table 2 presents the outcomes of hierarchical regression analysis of socio-demographic factors and optimism for life satisfaction measure.

Table 2: Results of Hierarchical regression analysis for predicting satisfaction with life from optimism (N = 426)

<table>
<thead>
<tr>
<th>Satisfaction with life</th>
<th>Predictors</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>.031</td>
<td>.043</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.107*</td>
<td>.117*</td>
</tr>
<tr>
<td></td>
<td>Socio-economic status</td>
<td>.117*</td>
<td>.097*</td>
</tr>
<tr>
<td></td>
<td>Optimism</td>
<td>.149*</td>
<td>.190*</td>
</tr>
<tr>
<td></td>
<td>R</td>
<td>.022</td>
<td>.036</td>
</tr>
<tr>
<td></td>
<td>R2</td>
<td></td>
<td>.014</td>
</tr>
<tr>
<td></td>
<td>df 1 &amp; 2</td>
<td>3,422</td>
<td>1,421</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>3.18*</td>
<td>6.06*</td>
</tr>
</tbody>
</table>

Note: Gender was entered as dummy variables. *p < .05, **p < .01
For the hierarchical regression examining predictors of life satisfaction (see Table 2), analysis revealed that $R$ was not significantly different from zero at the end of the first step. After step two, with all predictors in the equation, $R$ was significant ($F_{1, 421} = 6.06, p < .05$). After the first step $R^2$ change was not significant but two socio-demographic measures (age and socio-economic status) were significantly contributing to $R$. After step two $R^2$ change was significant with optimism and significantly adding to the total variance in prediction of SWL. The overall model is predicting a significant effect of dispositional optimism on satisfaction with life ($F= 3.93, p< .01$) and explaining 2.7% of variance (optimism added 1.2% above the control variable, $p< .05$). Result indicated that those who displayed higher level of optimism have higher level of satisfaction ($\beta = 0.121, p< .05$).

Table 3 presents the outcomes of hierarchical analysis of socio-demographic factors and optimism for different domains of QOL measure.

**Table 3: Results of Hierarchical regression analysis for predicting different domains of QOL (N = 426)**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Physical Health</th>
<th>Psychological States</th>
<th>Social Relationships</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.171**</td>
<td>.189**</td>
<td>.087</td>
<td>.104*</td>
</tr>
<tr>
<td>Age</td>
<td>.041</td>
<td>.056</td>
<td>.083</td>
<td>.069</td>
</tr>
<tr>
<td>SES</td>
<td>.102*</td>
<td>.069</td>
<td>.212**</td>
<td>.183**</td>
</tr>
<tr>
<td>Optimism</td>
<td>.192**</td>
<td>.172**</td>
<td>.176**</td>
<td>.034</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.038</td>
<td>.073</td>
<td>.062</td>
<td>.090</td>
</tr>
<tr>
<td>$R^2$ change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>df 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>5.51**</td>
<td>15.90**</td>
<td>9.24**</td>
<td>12.97**</td>
</tr>
</tbody>
</table>

**Note:** Gender was entered as dummy variables. *$p < .05$, **$p < .01$.

For the hierarchical regression examining predictors of different domains of QOL (see Table 3), analysis revealed that $R$ was significantly different from zero at the end of each step for physical health, psychological states and social relationship domains, not for environment domain. After step two, with all predictors in the equation, $R$ was significant for physical health ($F_{1, 421} = 15.90, p < .01$), psychological states ($F_{1, 421} = 12.97, p < .01$), and social relationship ($F_{1, 421} = 13.96, p < .01$) domains. After the first step $R^2$ change was significant with two socio-demographic measures (socio-economic status for all domains and gender for physical health domain) and significantly contributing to $R$. After step two $R^2$ change was significant with optimism and significantly adding to the total variance in the prediction of overall QOL. The overall model
is predicting a significant effect of optimism on physical health ($F= 8.25$, $p< .01$) and explaining 7.3% of variance (optimism added 3.5% above the control variable, $p<.05$), on psychological states ($F= 10.37$, $p< .01$) and explaining 9.0% of variance (optimism added 2.8% above the control variable, $p< .05$), and on social relationship domain ($F= 13.87$, $p< .01$) and explaining 11.06% of variance (optimism added 2.9% above the control variable, $p< .05$). Result indicated that those who displayed higher level of optimism have better perception of physical health ($\beta = 0.192$, $p< .01$), psychological states ($\beta = 0.172$, $p< .01$), and social relationship ($\beta = 0.176$, $p< .01$) domains. On the other hand, the overall model is predicting a significant effect of optimism on environment domain ($F= 8.25$, $p< .01$) and explaining 6.7% of variance where optimism added only 0.02% above the control variable, $p< .05$ which is insignificant. Result also indicated that displaying higher level of optimism does not contribute to the perception about environment domain ($\beta = 0.034$, $p> .05$).

The present study was aimed to ascertain the role of optimism in health of an individual, including their social well-being. Analyses revealed that optimism was positively correlated with life satisfaction and physical health, psychological states, and social relationship domains of QOL. No significant association between optimism and environment domain was found. Hierarchical regression analysis showed that age was significantly contributing only for life satisfaction of total sample and socio-economic status have significant contribution to both criterion variables (life satisfaction and QOL). It also seems that, after controlling all the demographical variables, optimism significantly contributes to the total variance for both criterions (life satisfaction and QOL).

Findings of the present study can be explained with the help of relevant studies carried out in different places. The positive effect of optimism has been attributed to the strategies that optimists use to cope with stress (Carver, Pozo, Harris et al., 1993; Edgar, Remmer, Rosberger, & Fourmure, 2000; Epping-Jordan, Compas, Oswiecki et al., 1999). Studies indicate that optimists generally used acceptance and active coping strategies (e.g., appraisal). Lipkus et al. (1993) indicate that optimists believe that negative events are less likely to occur in the near future, may serve a vital function. By doing so, optimists tend to engage in activities, which will increase their chances of experiencing positive outcomes. Scheier and Carver (1987) reported that optimists were more likely to use active (problem-focused) coping strategies, especially those who felt that the stressful situation was potentially controllable. In situations where problem-focused coping is not possible, optimists tend to use adaptive emotion-focused strategies, such as acceptance, humor, and positive reframing of the situation (Scheier et al., 1994). Optimists then differ from pessimists in their stable coping tendencies and in the kinds of coping responses that they spontaneously generate when given hypothetical coping situations (Scheier et al., 1985). McKenna (1993) reported
that a “positive orientation to events can result in greater effort and persistence with resulting greater success” (p.47).

Schweizer et al. (1999) argued that optimism can influence an individual’s sense of well-being. A relationship can be predicted between the nature of a person’s future expectations and his/her evaluation of own life. In terms of physical benefits, optimism as a personality attribute has been found to be a significant mediator or moderator of stress levels. Optimism has been reported to “moderate the deleterious effects of daily hassles on physical health (Fry, 1995). Scheier and Carver (1987) propose that the causal link between optimism and physical health or well-being may be due to the use of more effective coping strategies by optimists when dealing with stress. Other researchers have found that chronically stressed subjects are less optimistic than controls and that both optimism and pessimism are “influenced by environmental circumstances and life experiences” (Robinson-Whelan, et al., 1997, p. 1351).

When studied with optimism, life satisfaction has been found to correlate positively (Cummins & Nistico, 2002; Uskul & Greenglass, 2005). Chang, Maydeu-Olivares, and D’Zurilla (1997) found optimism and pessimism were predictors of individual difference in life satisfaction. While studying optimism/age association, Isaacowitz (2005) reported that although older people reported higher dispositional optimism scores, there was no age X optimism interaction predictive of depression or life satisfaction, and that the dispositional optimism/age differential was eliminated when covariates were controlled. Scheier and Carver (1985) reported that dispositional optimism was associated with lower levels of physical symptoms than was pessimism. In a review of literature studying physiological associations with optimism, many of which were longitudinal studies, Peterson and Bossio (2002) indicated that most relevant studies report a .20 to .30 correlation coefficient between optimism and good health. Scheier et al. (1990) reported that optimists are more likely to report feeling rested after sleeping and less likely than pessimists to report early morning awakenings. This may relate to optimism’s association with reduced anxiety reported by Scheier, Carver, and Bridges (1994).

Part of the details of how optimism affects physical health can be explained by its influence on behavior. Steptoe, Wright, Kunz-Ebrecht, and Iliffe (2006: 17) used separate and combined optimism/pessimism scores in a study of 128 men and women between 65 and 80 years of age. They reported that optimism was positively related to self-reported health status independent of healthy behaviors, and that physical health status was associated with optimism independent of social demographic, clinical condition, negative affect or body mass, but that the effect was “attenuated when health behaviors were taken into account”.
Research indicates that perceived support is associated with several of the same processes as global optimism, including adaptive coping, favorable expectancies, and positive affect (Brissette, Scheier, & Carver, 2002). Recently, several studies have provided more direct support for a link between optimism and perceived support. Optimism has been associated with perceived support among air crash rescue workers, bereaved men, romantic couples, and students transitioning to college. It appears that, if global optimism is a general tendency to expect good things, perceived support is a more specific manifestation of optimism in which one expects a particular good thing (social support) in a particular context (close relationships) (Assad, Donnellan, & Cogner, 2007; Srivastava, MaGonigal, Richard, Butler, & Gross, 2006).

Regression analysis also showed that age was significantly predicting the life satisfaction and socio-economic status was significantly contributing to the QOL of the respondents. Researches regarding the role of age in optimism indicated that determinants and mechanisms of happiness or life satisfaction like income (Clark, Frijters, & Shield, 2008; Easterlin, 2001), social support (Haller & Hadler, 2006), adaptation processes (Frederick & Loewenstein, 1999), and the balance between aspiration and attainments (Plagnol & Easterlin, 2008) can explain the relationship of age with SWB.

Analysis also indicated significant correlation between socio-economic status and indicators of health. Numerous studies have documented that lower SES is associated with poorer health status (Anderson & Armstead, 1995; Marmot, Kogeivas, & Elston, 1987; Williams & Collins, 1995). Lower SES is linked to multiple types of health outcomes, including higher rates of disease-specific morbidity and mortality (Adler et al., 1994; Marmot et al., 1987), poorer physiological indicators of health (Kubzansky, Berkman, Glass, & Seeman, 1998; Seeman & McEwen, 1996), and less adaptive psychological characteristics (Cohen, Kaplan, & Salonen, 1999; Taylor & Repetti, 1997). The findings of the present study provide significant evidence in this respect, and they go with the findings of other studies.

Furthermore, low SES individuals find their relationships less useful in coping with stress than high SES individuals (House et al., 1988; Liem & Liem, 1978). Some studies suggest a positive relationship between people’s SES or income status and psychological well-being or life satisfaction (Dohrenwerd & Dohrenwerd, 1969; Douhitt, Macdonald, & Mullis, 1992; Ying, 1992). These findings were also reported in several studies conducted in western European countries and also in U.S.A. The association between SES and health follows a common pattern (Hemingway, Nicholson, & Marmot, 1997; Marmot, Smith, Stanford et al., 1991), the lower the socioeconomic status the poorer the health. Similar results have been obtained from different countries in respect to cultural background or economic growth (Nicholson, Bobak, Murphy, Rose, & Marmot,
2005; Thumboo, Fong, & Machine et al., 2003). Pappa, Kontodimopulous, Papadopolous and Niakas (2009) studied the impact of SES on health of Greek people of 18+ age and results showed that females and older people were associated with impaired HRQOL. Disadvantaged SES i.e. primary education and low total household income was related to important decline in HRQOL and a similar relation was identified among men and women.

Results of the present study also indicated significant association between gender and optimism. Studies conducted on this issue reports mixed findings. Scheier, Carver and Bridges (1994, p. 1075) found “differences in correlation between men and women to be negligible”. Shukla (2010) conducted a study to assess the level of optimism of male and female students belonging to two different settings. Results revealed that male students have higher level of optimism than female students. Pradhan, Samal and kumar (2008) had compared the level of optimism of 30 HIV infected and 30 healthy people. They found that male participants from both groups (HIV infected and healthy) have higher level of optimism than female participants. Even in the absence of systematic gender difference and in the levels of dispositional optimism and pessimism, Chang (1998) and Räikkönen, Matthews, Flory, Owen and Gump (1999) argued that they may exist in the developmental paths.

CONCLUSION

It may be concluded from the results that, SWB, QOL, and optimism are positively correlated with each other. People with higher level of optimism experience more life satisfaction and better QOL than people of lower level of optimism. Older people are more satisfied with their life than adults and younger ones, and respondents from high socio-economic status have higher life satisfaction and report better QOL than those from middle and low socio-economic status. Life-span developmental psychologists recognize adulthood as a time when changes take place in important psychological processes. For example, according to socioemotional selectivity theory (Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999), when endings are made salient to individuals, they reorganize their social goals and prioritize emotionally salient goals over other ones. Getting older is the strongest cue that time is finite and that the most important ending is approaching. This theory suggests that individuals may become more optimistic with age, insofar as they are proactively regulating their socioemotional world.

Therefore, the complex of psychological processes surrounding emotional experience and well-being may change across life-span. Optimism has been a widely studied predictor of individual differences in affect (Scheier & Carver, 1993; Seligman, 1990). It seems that results obtained from the present study supports the cognitive models of affectivity which describes optimism as a predictor of well-being due to the habitual frames of processing information have ramifications for affect (Beck, 1967).
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WELL-BEING AND SELF-ESTEEM OF CHILDREN OF WORKING PARENTS: A CROSS-CULTURAL STUDY OF DELHI AND KERALA

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ABSTRACT

This study compared the well-being and self-esteem of children in Delhi and Kerala, which were considered individualistic and collectivistic cultures respectively. For this purpose a four group design was used, which comprised 120 children aged between 10 to 14 years. Out of the total, 60 children were taken from Delhi, wherein 30 were from families whose both parents were working, and 30 whose single parent was working. Similarly, 60 children were taken from Kerala, wherein 30 were from families whose both parents were working, and 30 whose one parent was working. They were administered the PGI General Well-being Measure of Verma and Verma and the Coopersmith Self-Esteem Inventory (School form). Results of t-test showed that the children of Kerala whose both parents were working scored significantly higher on well-being than the corresponding group of children of Delhi. Further, the group of children of Kerala whose only parent was working also scored significantly higher on well-being than the corresponding group of children of Delhi. Within Kerala, but not within Delhi, the well-being scores of children whose both parents were working scored significantly higher, than children whose one parent was working. Further, children of Kerala whose both parents were working scored significantly higher than the corresponding group of children of Delhi. However, the difference between the self-esteem of children of Kerala and Delhi whose one parent was working was found.

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non-significant. Also, within Kerala, the self-esteem scores of children whose both parents were working were significantly higher than the group of children whose one parent was working. This difference between groups of Delhi was not significant. Overall the results of this study indicate that the collectivistic cultural context of Kerala added with higher family incomes may facilitate the wellbeing and self-esteem more than the individualistic culture of Delhi.

**Keywords:** Well-being, Self-esteem, Children, Kerala, Delhi, Culture, Individualistic, and Collectivistic.

The momentous role of parents and caregivers in children’s healthy upbringing cannot be understated. Right from conception to adulthood, and till the time children attain independence, parents and family remain an essential source of nourishment, nurturance and knowledge for them. It’s not surprising then that parental behaviors have been found to affect several facets of children’s psychological make-up and adjustment (Steinberg, Mounts, Lamborn & Dornbusch, 1991) including self-esteem (Buri, 1989), self-perception (Klein, O’bryant & Hopkins, 1996), well-being (Shucksmith, Hendry & Glendinning, 1995), school adjustment (Bronstein et al., 1996), and academic performance (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; Turner, Chandler & Heffer, 2009). What is more is that involvement of both parents in rearing has been associated with many positive outcomes for children, such as academic achievement, psychological adjustment, positive self-concept and social competence (Maccoby & Martin, 1983; Rollins & Thomas, 1979).

Drawing from various theoretical perspectives, Umberson (1992) affirmed that the parent-child tie is a strong and unique source of social attachment and solidarity for both children and their parents. Naturally, it is then reasonable to expect that such a close relation may affect the well-being of children and their parents by meeting each others’ psychological needs such as those of nurturance, interaction and affiliation. Knoester (2003) has explained that the well-being of children affects parents’ well-being through feelings of empathy; for one because parents vicariously experience their children’s joys and sorrows and because childrens’ successes and failures are believed to reflect on parents’ performance.

However, this gratifying socio-emotional mutualism between parents and children may be compromised when parents are not able to spend quality time with their young ones. Given today’s high-pressure work environments, parents may experience greater work-related stress, spend late hours in the workplace, and may even bring work home, which might consume the time that otherwise would have been available for nurturing the relationships with their children. As a consequence, parents’ may not come to know of their childrens’ everyday experiences, activities and whereabouts. Further, work-related stresses and/or the frustrations arising out of not being able to meet their family’s needs because of
overwork, might be displaced on family members including children, and manifest
in the form of outbursts of negative emotions, irritability and impatience at home. Thus, a warm, nurturing and positive home environment may become unconducive and hostile to healthy development of children and their well-being.

The effects of parents’ employment on children’s well-being and family have been explored by several studies. High work pressure has been found to result in greater feelings of overload for parents, increased conflicts between adolescent children and parents, and lower levels of well-being for both parents and children (Crouter, Bumpus, Maguire & McHale, 1999). Also, mothers in particular, have been found to withdraw from their preschool age children on the days they experience overload or interpersonal stress at the workplace (Baumrind, 1989). The effects of parents’ workplace experiences on children seem unavoidable.

How many hours parents work in a day, as such, has not been associated with behavioral problems among children but the number of transitions between parents’ employment and unemployment have been related to increased anxiousness and depressed behaviors among children (Kalil, Dunifon & Danziger, 2001). In addition, Strazdins et. al. (2004) investigated the effect of parents’ employment (whether one or both worked) and working hours (standard or non-standard) on children. They found that in about three quarters of families where one of the parents worked during non-standard times regularly, child difficulties were greater compared to families where parents worked only during standard times. At the same time, parental work, in general, has been found to benefit low income children via provision of role models, and stabilization of family routines (Wilson, 1996). Parents’ odd working hours and employment instability might be detrimental to children.

Maternal employment in particular, has been linked with positive outcomes for children during middle-childhood (Menaghan, Jekielek, Mott & Cooksey, 1998). Chase-Lansdale et. al. (2003) found that mothers’ taking up jobs was related to improvements in mental health of adolescents, while mothers’ employment stability was related to decreases in the adolescents’ externalizing behaviors. On the other hand, mother’s job losses were associated with increased behavioral problems in adolescents.

Overall, it appears that whether one or both parents work, the impact on childrens’ well-being is not very much. Harvey (1999) found the effect of parental employment on childrens’ development to vary by age, but such effects, whether negative or positive, were inconsistent.

A considerable body of research devoted to the relationship between parental behaviors and childrens’ self-esteem has uncovered several predictors and correlates of childrens’ self-esteem. Kawash, Kerr and Clewes (1985), have suggested that variation in childrens’ self-esteem can be attributed to differences
in parental behaviors such as parental acceptance, discipline and autonomy. Also, parental support, autonomy, control and participation have been found to be significantly correlated with adolescents’ self-esteem (Gecas & Seff, 1990). Coppersmith (1967) based on his studies on pre-adolescent children put forward three antecedents of children’s self-esteem, namely, total acceptance of children, enforced and defined limits of, and latitude for individual action. Among adolescents, parental support and parental willingness to grant autonomy and freedom to children has been related with high self-esteem of children (Marks, 1999). Further, a linear relationship was found by Coppersmith (1981) between adolescents’ perception of parental warmth/acceptance, and their self-esteem. In general, it seems that if children share a good relationship with their parents they will experience higher self-esteem (Sui-Chu & Esther Ho, 1996).

Evidence shows that while some parental behaviors are conducive to children’s self-esteem, others are detrimental. For instance, parental behaviors characterized by warmth, responsiveness and provision of reasonable expectations are associated with children’s positive feelings about themselves, while those characterized by corrosiveness instill a sense of insecurity among children (Baumrind, 1971). Similarly, Hill & Frank (1980) found that parental acceptance was linked with positive self-esteem, whereas parental rejection with negative self-esteem among children. In addition, some extreme parent-child relationship scenarios portend regretful outcomes for children’s self-esteem. For example, it has been shown that adolescents who find themselves under excessive pressure to perform at school are likely to have low self-esteem (Erikson, 1963), as are children who are abused by their parents (Covington, 1989). It seems that positive parental behaviors nourish, while negative behaviors emaciate children’s psyche.

Studies have also investigated the effects of mothers’ attributes on children’s self-esteem. Behamdouni (1993) found mother’s acceptance to be the most powerful predictor of children’s self-esteem in their study. Higher levels of self-esteem have also been obtained among children whose mothers’ are empathetic, genuine and have positive regard for children than mothers who do not have these qualities (Moore & Driscoll, 1997). Moreover, the degree of democracy in maternal behavior has been found to have a positive association with children’s general self-esteem, academic self-esteem, and the likelihood of higher achievement (Frey & Carlock, 1987). These studies emphasize the impact of maternal behaviors on children’s self-esteem.

So far as the gender specific effects of parental behaviors on boys and girls is concerned, mothers’ permissiveness has been associated with high self-esteem of daughters, whereas fathers’ permissiveness has been linked to high self-esteem of both sons and daughters (Mecca, Smelser & Vasconcellos, 1989). Further, adolescent boys with high self-esteem have been shown to have parents who are democratic, but are not as permissive as those of boys with low self-esteem.
(Baumrind, 1975). Also, parental acceptance has been found to correlate negatively with parent-child disagreements, but only for girls (Hill & Holmbeck, 1987).

Parental behaviors may not only affect children's esteem directly, but also indirectly, because parents may serve as imitable role models for their children. Hilgard et. al. (1976) reported that adolescents, who had high self-esteem, also had parents who had high self-esteem. They reasoned that adolescents who identify with their parents may strive to model their personalities and behaviors after their parents. Thus, adolescents exhibiting high or low self-esteem may have identified with, and modeled their behavior after parents who had high or low self-esteem respectively.

It appears that cultural factors too can affect the children's self-esteem. Bhattie et. al. (1989) compared the self-image, ego strength, self-esteem and psychological well-being of normal group of adolescents from India to a group of adolescents from USA, Ireland, and Australia. The results revealed that the self-esteem or ego strength of American and Australian adolescents was higher than that of Indian and Irish adolescents. Further, there seem to be intracultural differences even within Western societies as to how parental behaviors are associated with children's self-esteem. For example, Erikson (1963) found that while some parental behaviors were significantly related with self-esteem of US adolescents, same behaviors were not related with self-esteem of German adolescents. Hence, cultural factors may too moderate the effects of parental behaviors on children's self-esteem.

Moreover, it seems that self-esteem and well-being go hand in glove to a quite an extent. Diener and Diener (1995) obtained a correlation of .47 between self-esteem and life-satisfaction in their study comprising 13,118 college students taken from 31 nationalities across the world. Furthermore, Paradise and Kernis (2002) reported that high self-esteem was related with higher well-being than with low self-esteem. Similarly, Schimmack and Diener (2003) found explicit self-esteem to be a significant predictor of subjective well-being. Thus, it is possible that self-esteem and well-being may influence each other and / or there may be some common factors which have an effect on both self-esteem and well-being.

The importance of child-rearing practices and involvement of both parents in child-rearing for healthy development of children has been empirically confirmed time and again. As discussed earlier, children's self-esteem may differ between cultures, as well as within cultures. Also, since well-being has been found to be closely associated with self-esteem, it too may differ not only between cultures, but within cultures as well. Since India is home to a great cultural diversity it is likely that self-esteem and well-being of children are not same across its different regions. At the same time, it needs to be seen as to how the changing landscape of family dynamics and parental employment owing to rapid urbanization affects children's well-being and self-esteem against the backdrop of cultural dissimilarity.
This study made an effort in this direction by assessing the variables under consideration in the states of Delhi and Kerala.

The state of Delhi with its heterogeneous, open and individualized society and the state of Kerala with its homogeneous, closed, collective and traditional socio-cultural values and lifestyle are two distinct sub-cultures within India. Consideration of these two sub-cultures seemed apt for this study, which assessed the relation of culture and parental employment with children’s self-esteem and well-being. Also, since studies comparing children’s self-esteem and well-being in relation to parents work status across sub-cultures are scarce in available literature, this study attempted to explore this domain.

METHOD

Participants

In this study, a total of 120 children aged between 10 to 14 years were taken. Out of these 60 were from Delhi, wherein 30 were from families where both parents were working and 30 were from families where only a single parent was working. Similarly, 60 children were taken from Kerala, wherein 30 were from families where both parents were working and 30 were from families where only a single parent was working. Thus, a four group design was used in the study. These children were taken on availability basis from both places.

Tools

Coopersmith Self-Esteem Inventory: The Coopersmith Self-Esteem Inventory was developed by Coopersmith (1981) to measure attitude toward the self in social, academic, family and personal areas of experience. The inventory consists of 58 items to which one of the two responses, namely, “Like me” or “Unlike me,” needs to be ticked. The items include statements such as “I often wish I were someone else,” and “My parents usually consider my feelings.” Kimball (1972) has reported internal consistency reliability of the inventory to range from .87 to .92 for children of grades 4 through 8. The construct validity of the measure has been confirmed by Kokens (1974, 1978) for students of grades 4 to 8 in studies comprising a total of 7600 students.

PGI General Well-being Measure (English version): The PGI General Well-being Measure (English version) was developed by S.K. Verama and Amita Verma (1989) to assess general well-being. It comprises of 20 items asking the subject to respond with a tick to the items which are applicable to him or her. The total number of items ticked gives the total well-being score. The total scores range from 0 - 20. Its split-half reliability is 0.98, whereas test-retest reliability index is 0.91. There is a positive correlation of 0.56 between the PGI General Well-being Measure and the Bradburn Wellbeing Scale.

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RESULT

T-test was used to find out significant difference between different groups. Results are given in the following tables:

Table 1: Comparison of Well-Being of children from different groups based on the working status of parents (Single working / Both working) and culture (Delhi / Kerala)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Comparisons</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SED</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Both working (Delhi)</td>
<td>30</td>
<td>13.13</td>
<td>2.609</td>
<td>0.476</td>
<td>4.301</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>Both working (Kerala)</td>
<td>30</td>
<td>16.20</td>
<td>2.905</td>
<td>0.530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Single working (Delhi)</td>
<td>30</td>
<td>12.73</td>
<td>2.545</td>
<td>0.465</td>
<td>2.401</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>Single working (Kerala)</td>
<td>30</td>
<td>14.57</td>
<td>3.319</td>
<td>0.606</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Both working (Delhi)</td>
<td>30</td>
<td>13.13</td>
<td>2.609</td>
<td>0.476</td>
<td>0.601</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>Single working (Delhi)</td>
<td>30</td>
<td>12.73</td>
<td>2.545</td>
<td>0.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Both working (Kerala)</td>
<td>30</td>
<td>16.20</td>
<td>2.905</td>
<td>0.530</td>
<td>2.208</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>Single working (Kerala)</td>
<td>30</td>
<td>14.57</td>
<td>3.319</td>
<td>0.606</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 presents a comparison of well-being of children from different groups based on the working status of parents, and culture i.e. Delhi and Kerala.

A perusal of the first row of Table 1 shows the mean well-being values of children from Delhi and Kerala whose both parents worked were 13.13 and 16.20 respectively, whereas their SDs were 2.609 and 2.905 respectively. The t-ratio obtained between the two means was 4.301, which was significant at 0.05 level of significance. The mean well-being score of children from Kerala was higher than of children from Delhi, and it was found to be statistically significant.

The second row of the same table shows the mean well-being values of children from Delhi and Kerala whose one parent worked were 12.73 and 14.57 respectively, whereas their SDs were 2.545 and 3.319 respectively. The t-ratio obtained between the two means was 2.401, which was not significant at 0.05 level of significance. The mean well-being score of children from Kerala was higher than of children from Delhi, and it was found to be statistically significant.

The third row of the table displays the mean well-being values of children from Delhi whose both or a single parents worked were 13.13 and 12.73 respectively, whereas their SDs were 2.609 and 2.545 respectively. The t-ratio obtained between the two means was 0.601, which was not significant at 0.05 level of significance.

The fourth row of the table shows the mean well-being values of children from Kerala whose both or a single parents worked were 16.20 and 14.57 respectively, whereas their SDs were 2.905 and 3.319 respectively. The t-ratio obtained between the two means was 2.208, which was significant at 0.05 level of significance. The mean well-being score of children having both parents as
working was higher than of children having a single parent as working, and it was found to be statistically significant.

Table 2: Comparison of Self-Esteem of children of different groups based on the working status of parents (Single working / Both working) and culture (Delhi / Kerala)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Comparisons</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>SED</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Both working (Delhi)</td>
<td>30</td>
<td>61.60</td>
<td>10.497</td>
<td>1.916</td>
<td>2.973</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>Both working (Kerala)</td>
<td>30</td>
<td>70.47</td>
<td>12.514</td>
<td>2.285</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Single working (Delhi)</td>
<td>30</td>
<td>60.47</td>
<td>10.030</td>
<td>1.831</td>
<td>0.440</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>Single working (Kerala)</td>
<td>30</td>
<td>61.87</td>
<td>14.248</td>
<td>2.601</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Both working (Delhi)</td>
<td>30</td>
<td>61.60</td>
<td>10.497</td>
<td>1.916</td>
<td>0.428</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>Single working (Delhi)</td>
<td>30</td>
<td>60.47</td>
<td>10.030</td>
<td>1.831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Both working (Kerala)</td>
<td>30</td>
<td>70.47</td>
<td>12.514</td>
<td>2.285</td>
<td>2.484</td>
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<tr>
<td></td>
<td>Single working(Kerala)</td>
<td>30</td>
<td>61.87</td>
<td>14.248</td>
<td>2.601</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 presents a comparison of Self Esteem of children from different groups based on the working status of parents, and culture i.e. Delhi and Kerala.

A perusal of the first row of Table 2 shows the mean self-esteem values of children from Delhi and Kerala whose both parents worked were 61.60 and 70.47 respectively, whereas their SDs were 10.497 and 12.514 respectively. The t-ratio obtained between the two means was 2.973, which was significant at 0.05 level of significance. The mean self-esteem score of children from Kerala was higher than of children from Delhi and it was found to be statistically significant.

The second row of the same table shows the mean self-esteem values of children from Delhi and Kerala whose one parent worked were 60.47 and 61.87 respectively, whereas their SDs were 10.030 and 14.248 respectively. The t-ratio obtained between the two means was 0.440, which was not significant at 0.05 level of significance.

The third row of the table displays the mean self-esteem values of children from Delhi whose either both or a single parents worked were 61.60 and 60.47 respectively, whereas their SDs were 10.497 and 10.030 respectively. The t-ratio obtained between the two means was 0.428, which was not significant at 0.05 level of significance.

The fourth row of the table shows the mean self-esteem values of children from Kerala whose either both or a single parents worked were 70.47 and 61.87 respectively, whereas their SDs were 12.514 and 14.248 respectively. The t-ratio obtained between the two means was 2.484, which was significant at 0.05 level of significance. The mean self-esteem score of children having both parents as working was higher than of children having a single parent as working and it was found to be statistically significant.
DISCUSSION

The t-ratio between the mean values of well-being of children from Delhi and Kerala whose both parents were working was found to be significant (t=4.301, p<.05), with the children of Kerala scoring higher.

The fact that children of Kerala scored significantly higher on well-being than children of Delhi, despite there being no difference in the employment status of their parents, suggests that cultural factors are important in the well-being of children.

Being a metropolitan, industrial and political place, the values and behaviors of Delhi seem to be individualistic, but of Kerala these seem to be collectivistic. The family units in collectivistic societies often comprise, apart from children’s own parents, their grandparents, aunts, uncles and cousins. Moreover, in such societies not only are children socialized to be responsible for their family, the family too is socially obligated to take care of children. Hence, all family members share the responsibility of children’s well-being. By contrast, children are socialized to make their own decisions and become independent as early as possible in individualistic cultures (Maschinot, 2008), and members of the society are expected to be responsible for their own selves and their well-being (Diener, Diener & Diener, 1995). Thus, in such cultures, children’s own parents, but not other family members, may be obligated to care for children. In such a condition, the children of individualistic culture are deprived of care, affection, and guidance of other family members which make them feel not so well as the children of collectivistic culture.

Further, when both parents are at work, they cannot possibly be available during office hours to tend to children’s needs and spend quality time with them. In such cases, others, in lieu of parents, need to care for children during parents’ absence. In collectivistic cultures, such a scenario may prompt family members including children’s aunts, grandparents, cousins, or perhaps even neighbors to step up and provide care to children, as they may see it as a social obligation to work for each other’s well-being. Australia’s Aboriginal culture is a case in point, which is based on collectivist kinship and has safety and well-being of children at its core. Elders of Aboriginal families are especially valued and looked up to for providing support to their children and grandchildren. Moreover, all people in these close-knit communities keep a watch on each others’ children, and so important information about children’s whereabouts or activities might promptly reach their immediate family members from others in the community. Their kinship system also socializes children to bond with others and to have faith and confidence that all community members will act in the best interests of children (Child Family Community Australia, 2014). Hence, children from collectivist cultures may benefit by receiving quality and responsive childcare from extended family and community.
members, even while their parents are away at work. On the contrary, children from individualistic cultures may have to rely chiefly either upon themselves, or on professional childcare services such as those provided by babysitters or crèches for childcare when their parents are away at work. Thus, they may not get childcare embodying warmth, responsiveness and the personal touch that children from collectivist cultures may get when their next of kin voluntarily comes forward to care for the children. Since, warm and responsive childcare, essential to childrens’ well-being, are available to children of Kerala being collectivist society, is more conducive to childrens’ well-being, they feel more well than the children of Delhi, an individualistic society.

The t-ratio between the mean values of well-being of children from Delhi and Kerala whose one parent was working was found to be significant (t=2.401, p<.05), with the children of Kerala scoring higher.

This result is in line with the earlier discussion suggesting that childcare practices of Kerala may be more conducive to childrens’ well-being compared with Delhi, because in Kerala not just parents but all family members may tend to participate in rearing children and providing protection and affection to them. So, even for families where only one parent works while one is available at home to take care of a childrens’ needs (in both Delhi and Kerala), the collective childcare provided by family members in Kerala may promote more enriching environment for childrens’ well-being. Thus, children of Kerala may develop a greater degree of well-being than children of Delhi. At the same time, it should be noted that this difference in well-being has emerged the children of the two states, despite the family incomes being dependent on just one parent (in both states). As a whole it suggests that qualitative difference in parenting and childcare prevalent in Kerala culture may promote childrens’ well-being more than the Delhi culture.

Empirical evidence also suggests that adolescents of Kerala perceive their parenting as quite positive. Parents from Kerala were perceived by their children as having realistic expectations from them, being accepting, being neither neglecting nor too pampering, being optimally protective, at the same time allowing for sufficient freedom (Maries, 2014).

The t-ratio between the mean values of well-being of children from Delhi whose both and one parent are working was found to be non-significant (t=0.601, p>.05).

Since a non-significant difference was obtained between the mean well-being scores of children of the two groups in Delhi, it may be discerned that additional income contributed by the second working parent did not have much impact on the well-being of children. It seems that quality childcare is necessary to childrens’ well-being and that it may not be made up for, by affluence. Thus, it confirms
the notion that money alone is not enough for well-being. Also, it may be concluded that insofar childrens’ well-being is concerned, responsive and caring parenting is essential, while economic affluence alone may not be of much help.

The t-ratio between the mean values of well-being of children of Kerala whose either both or one parents were working was found to be significant ($t=2.208$, $p<.05$), with the children whose both parents were working scored higher.

This finding seems to suggest that when Kerala’s nourishing childcare practices are coupled with higher family incomes (such as in households where both parents work) there may be an even greater positive effect on childrens’ well-being, as some optimal level of economic conditions are needed to feel well. There is little doubt that families with higher income, such as dual income families, will have the advantage of making a broader range of choices for their children which require monetary considerations. Parents from double-income households may have greater monetary power to make investments conducive to the well-being of children, thus increasing the likelihood of better outcomes for childrens’ well-being, than either childcare practices or high income alone.

Empirical evidence affirms that parents’ employment status, in general, can benefit low-income children through the provision of positive role models and stabilization of family routines (Wilson, 1996). Further, mother’s employment, in particular, is not only associated with better maternal mental health (Hoffman & Youngblade, 1999) but it also benefits children in low-income families by providing additional income to the family. Also, the social and cognitive stimulation of the mother leads to more positive interactions with her children (Klebanov, Brooks-Gunn, & Duncan, 1994), thus benefitting children in multiple ways.

The t-ratio between the mean values of self-esteem of children of Delhi and Kerala whose both parents worked was found to be significant ($t=2.973$, $p<.05$), with the children of Kerala scoring higher. The difference in self-esteem of children may have to do with the distinct socio-cultural make up and functioning of the two states which may affect childrearing and childcare. The demographics of Kerala show that it has a homogeneous population and the populace subscribes to a shared set of cultural values and norms. As mentioned earlier, a collectivist culture predominates in Kerala where family members not only share strong relational bonds and feelings of belongingness, but cooperate with, and care for each other. It is a closed and well-knit society where members of a family take good care of other members, and if needed, share the responsibility for other members such as that of caring for children and elders. Such cultural dynamics may work in the manner that even if both parents go out for work, other family members may take up the responsibility of providing care, protection and affection to their children and thus compensate for the parents’ absence to a large extent. Hence, despite the absence
of their parents, children of such households of Kerala may get adequate quantity and quality of childcare, and they may still develop a healthy self-esteem.

On the contrary, demographics of Delhi reveal that it has a heterogeneous population, comprising largely of migrants from different states and it embodies a diverse set of cultural patterns, traditions, values and norms of conduct. Delhi typifies a metropolitan, open and individualistic culture, where members of a family and society are largely responsible for their own welfare. Consequently, if children whose parents go out for work need care, the remaining family members may not be able to afford much time or provide guidance, care and affection to these children. A scenario such as this may adversely affect children’s self-esteem if both parents are working, and quality childcare may not be available to children in their absence. It appears then that Kerala’s chiefly collectivist feature, may be more advantageous to the self-esteem of children whose both parents work than Delhi’s essentially individualistic culture. Hence, compared to Delhi, greater mean scores on self-esteem were obtained for children Kerala.

Baumrind (1971) has asserted that child-rearing practices have been consistently found to relate with childrens’ self-esteem. It has been shown that children and adolescents, whose parents are warm, responsive and provide reasonable expectation for behavior, tend to feel good about themselves. Warm and positive parenting lets young people know that they are accepted as worthwhile and competent. Conversely, highly corrosive parenting has been associated with a sense of inadequacy in children, because it communicates to children that they are ineffective in managing themselves and so, must be controlled by adults.

The t-ratio between the mean values of self-esteem of children of Delhi and Kerala whose one parent worked was found to be non-significant (t=0.440, p>.05).

This non-significant difference in self-esteem may be explained in the way that apart from cultural factors and child care, family income too may contribute to childrens’ self-esteem. In families where only one parent works, limited family income may constrain children from achieving a higher level of self-esteem, which may not be the case for children of families in which both parents work, and thus the family income is high enough to not harm childrens’ self-esteem. It seems likely that both culture and family income work together to impact childrens’ self-esteem. Also, if the family income is below a certain level, even enriching parenting and childcare practices conducive to children’s self-esteem (such as those prevalent in Kerala), may not be able to buttress the self-esteem of children; rather economic hardship and its negative consequences may still harm childrens’ self-esteem. Whitbeck et al. (1991) found that family’s economic adversity affects early adolescent self-esteem via decreased parental support to children and less involvement of parents in childrearing. Harvey (1999) had concluded that the
influence of early parental employment on child development was real, but it varied by the child’s age, as well as with parents’ marital and economic statuses.

The t-ratio between the mean values of self-esteem of children of Delhi whose both and one parents were working was found to be non-significant ($t=0.428$, $p>.05$).

As discussed earlier, though both culture and family income may account collectively for self-esteem of children, the result obtained for the children of Delhi suggest that differing family income did not seem to have much impact on childrens’ self-esteem. The result shows that even though the self-esteem of children, whose both parents worked was marginally higher, it was not significantly higher than of children whose one parent worked.

It appears that culture in individualist context plays a important role in determining whether there would be any beneficial effects of higher income on childrens’ self-esteem or not. It is possible that such effects are substantial only when children receive enriching parenting and childcare such as that received by children in collectivistic cultures. Perhaps that is the reason that a significant difference was not found in self-esteem of the two groups of children from Delhi, where an individualistic culture dominates, and which may not engender as wholesome childcare as is found in collectivistic societies, such as in Kerala.

The t-ratio between the mean values of self-esteem of children of Kerala whose both and single parents were working was found to be significant ($t=2.484$, $p<.05$), with the children whose both parents worked scoring higher. The result obtained suggests that Kerala’s collectivistic culture, due to its values of providing warm and responsive parenting and childcare is a key determinant of childrens’ self-esteem. This is likely because, while a significant difference was not obtained in the self-esteem of children of Delhi, whose single or both parents worked in Delhi, a significant difference in self-esteem was obtained between comparable groups in Kerala. It seems that in families of Kerala, where both parents work, the higher family income complements warm and responsive childcare, by allowing for additional expenditure for children’s better healthcare, nutrition, education and recreation, which may enhance childrens’ self-esteem over and above the self-esteem which may be achieved by good childcare alone. Hence, in families of Kerala where both parents worked, children were found to have significantly higher self-esteem. Overall, it seems that the collectivist cultural context prevailing in Kerala may augur better outcomes for the self-esteem of children.

It appears that it is largely the childcare values and practices rooted in culture and to some extent family income which determine childrens’ well-being and self-esteem. Further, different cultures such as individualistic or collectivistic, may promote different childcare and childrearing customs, which may have varying effects on childrens’ well-being and self-esteem. As a result, different levels of
well-being and self-esteem may be observed in different cultures, moderated, for the most part by culture and to some extent by family income. For instance, it must be noted that while greater well-being and self-esteem in children whose both parents were working was obtained in both Kerala and Delhi, this difference was found to be statistically significant only in Kerala. This may suggest that whatever benefits (including a higher family income) employment of both parents has on the self-esteem and well-being of children is substantial and therefore meaningful, only when the culture context is conducive. Overall, the results of this study indicate that the collectivistic culture of Kerala added with higher family incomes may dominate over the individualistic culture of Delhi and lower family incomes so far as conduciveness for better well-being and self-esteem of children is concerned.

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Well-being and Self-esteem of Children of Working Parents...


Journal of Indian Health Psychology
A STUDY OF IDENTITY CRISIS AND SELF-MONITORING IN INDIAN ADOLESCENTS

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ABSTRACT

This paper outlines the utility of the concept of identity in personality development during adolescence. Identity crisis, a term which is used in colloquial speech, refers to a time of great turmoil in a person’s life in which they struggle with understanding who they are. Adolescence is the period of life between the onset of puberty and the full commitment to an adult social role, known for the formation of personal and social identity and the discovery of moral purpose. In Erik Erikson’s psychosocial theory of development, identity crisis is viewed as a natural transitional phase all people must go through to find out what roles they best fill in society. Identity crisis is part of his fifth stage of development - the Identity Cohesion versus Role Confusion stage - where a person develops either an identity or identity confusion. Present study was conducted on 200 participants using simple random sampling technique. Standardized measures such as Self Monitoring Scale and Objective Measure of Ego Identity Status were used for data collection. Results of the study revealed that females scored higher on foreclosure and boys scored higher on the achievement and moratorium statuses. Significant correlations were found among self monitoring, achievement and moratorium within boys while foreclosure and self monitoring were positively and significantly correlated within girls.

Keywords: Identity crisis, Turmoil, Adolescence and Development.

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In human life span adolescence is that period of transition which links childhood and adulthood, in which socioemotional development is characterized by increased efforts to understand the self and the search for an identity. Decisions are not made once and for all, but have to be made again and again. Identity development does not happen neatly, and it does not happen cataclysmically (Cote, 2009). Young men and women are most vigorously driven to respond to the diversity of roles, activities, and values offered by societies in a bid to explore and create/take their place in the world. They are differentiated with regard to their experiences, their perspectives and their hopes for the future. They may respond to their social landscapes with enthusiasm, passion, idealism, indignation, protest, silence or apathy. They also evoke a rich variety of intense reactions from the others in the social order. On one hand, the youth are represented as reckless, irresponsible and uncommitted; on the other hand, as dedicated, deferential and conformist. Youth is not only viewed as a futuristic ray of hope, but also as a threat to the existing society. While pushed to the margins of political power within established order, they attract serious attention as the prime source of commodification and a profitable market.

**Aspects of Youth**

‘Youth’ as a biographical life stage is located between adolescence and adulthood. According to Arnett (1998) it begins with the end of secondary education and ends in their 20s for most people as the experimentation of the period is succeeded by more enduring life choices. It is distinct both demographically and subjectively from adolescence (roughly from the ages of 10 to 17) as well as adulthood (roughly from the age of 30). From a demographical perspective, this phase witnesses a high level of change and diversity. Youth represents multiple possibilities from delinquency to creative deviancy, rebellion to conformity, alienation to vigorous involvement in the spirit of the era. The energies of the vast majority of youth are absorbed in the efforts to acquire the skills and attitudes to negotiate the opportunity structure within modern economy for which they receive encouragement and appreciation from their peers, their teachers, and their family.

**Identity, Identity Crisis and its Dimensions**

Identity is an experience that lends a sense of self-sameness and continuity to a person across time and space (Erikson, 1968). A need for the sense of identity emerges in the face of incongruities and incompatibilities amongst the various elements of the self and/or ways in which one is positioned by particular social discourses of gender, class, race, religion and one’s own self-understandings. These moments of disjuncture heighten self-awareness and reflection - the search for identity inevitably leads some adolescents to an identity crisis involving substantial psychological turmoil (Erikson, 1963). Erikson (1968) suggested that
upon resolving the crisis of identity versus role confusion, individuals are able to integrate all viewpoints about oneself and synthesize the many roles one has to play into a personal identity. Using Erikson’s theory as a springboard, James Marcia (1980) set forth four identity statuses, namely identity achievement, moratorium, foreclosure, and diffusion; they are defined by the self-reported experiences of crisis (exploration) and commitment. Adolescents are said to be identity achieved when they have gone through a period of exploration and made identity-defining commitments (Marcia, 1980). Individuals are said to be in moratorium status when they are currently in the process of exploration with either vague or absent commitments. Individuals of the foreclosed status harbor values, beliefs, and goals adopted from parents and/or authority figures without much critical thought. Identity diffused individuals lack exploration as well as commitment, because of which they tend to remain carefree and drift aimlessly.

Self-Monitoring

According to Snyder (1974, 1987), self-monitoring refers to the individual management of self-presentation, expressive behaviors, and non-verbal displays of affect. Self-monitoring individuals at the higher level regulate their eloquent self-presentation for maintaining desirable public appearances, thus focusing on the interpersonal significance of social behavior and using the expressions of others in social situations as cues for self-regulation. Self-monitoring individuals at the lower level express their actual thoughts and feelings, and according to Pledger (1992) self-monitoring increases throughout adolescence as individuals develop more sensitive perspective-taking skills, increased social acuity, and a high level of adaptive abilities in different communicative contexts. Some of the researchers found males to be significantly higher than females in self-monitoring (Nesler, Tedeschi, & Storr, 1995; Snyder, 1987; Snyder, Simpson, & Gangestad, 1986) while others reported no gender differences (Pledger, 1992). However, a large amount of the research in this area focuses on correlates of self-monitoring through documentation of attitude and behavior differences between high and low self-monitoring that incorporate differences in their social behaviors, perceptions, and beliefs regarding others (Snyder, 1987). Snyder has also suggested that self-monitoring, identity and self-awareness are closely related. A pragmatic conception of self is shown by self-monitoring individuals at the higher level - a flexible “me for this situation” which describes identity as a consequence of roles corresponding to specific social situations (Snyder, 1987). In contrast, a more principled conception of self is shown by self-monitoring individuals at the lower level - an enduring “me for all times and places” which describes identity as a consequence of personal attributes and characteristics (Snyder, 1987).

A considerable amount of study has been dedicated to the comprehension of effects on and the results of identity development and the correlates of each...
identity status. The present study attempts to contribute to this understanding by exploring the:

(a) Relationship between identity status and self-monitoring behavior; and
(b) Gender differences in identity as well as self-monitoring in an Indian sample of adolescents.

METHOD

Sample

In order to achieve the objectives of the study, a sample of 200 late adolescents (90 boys and 110 girls) was taken from numerous schools and colleges of New Delhi, India. Ages ranged from 15 to 20 years; the mean age of boys was 17.53 years and that of girls was 17.41 years. The data were collected among matric (10th) qualified students.

Measures

A. Objective Measure of Ego Identity Status: The Objective Measure of Ego Identity (abbreviated as OMEIS) is a self-report measure developed by Bennion & Adams in 1986, which has been considerably used for educational or clinical assessment of identity formation as well as research. It comprises of 64 items which determine the identity formation of a person across two domains with each one consisting of 32 items. Each of the areas of occupation, religion, politics and philosophical life style comprises of 8 items, thereby forming the ideological domain; while each of the areas of friendship, recreation, dating and sex roles includes 8 items, thereby forming the interpersonal domain. Both the domains measure identity achievement, moratorium, foreclosure, and diffusion. Graf (2003) succeeded in using the extended version of the scale (EOMEIS-2) on a sample of Indian adolescents, and reliability coefficients of different statuses of EOMEIS-2 (ranging from .72 to .87) were reported by Sandhu (2004) using Indian sample.

B. Self-Monitoring Scale: The Self-Monitoring Scale (abbreviated as SMS) is an instrument developed by Snyder and Gangestad in 1986 that has been primarily used for assessing self-monitoring. Originally, this scale consisted of 18 items presented in a true-or-false format (for example: “I guess I put on a show to impress or entertain others,” and “I have trouble changing my behavior to suit different people and different situations”).

RESULT AND DISCUSSION

Pearson’s method was used to determine the correlations of four identity statuses with the dimension of self-monitoring for the boys’ and girls’ sample, separately.
Table 1: Descriptive Statistics: Boys and Girls, N=200

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Boys Mean</th>
<th>SD</th>
<th>Girls Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Monitoring Total</td>
<td>36.87</td>
<td>2.79</td>
<td>35.57</td>
<td>3.44</td>
</tr>
<tr>
<td>Achievement Total</td>
<td>53.93</td>
<td>6.73</td>
<td>51.40</td>
<td>6.81</td>
</tr>
<tr>
<td>Moratorium Total</td>
<td>49.25</td>
<td>6.09</td>
<td>49.73</td>
<td>6.72</td>
</tr>
<tr>
<td>Foreclosure Total</td>
<td>43.78</td>
<td>8.05</td>
<td>46.42</td>
<td>9.83</td>
</tr>
<tr>
<td>Diffusion Total</td>
<td>47.30</td>
<td>5.34</td>
<td>47.59</td>
<td>6.49</td>
</tr>
</tbody>
</table>

Table 2: Correlation Table: Boys and Girls, N=200 for Self Monitoring and Dimension of Ego Identity

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Self-Monitoring</th>
<th>Achievement</th>
<th>Moratorium</th>
<th>Foreclosure</th>
<th>Diffusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Monitoring</td>
<td>1</td>
<td>.21*</td>
<td>.20*</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>Achievement</td>
<td>.04</td>
<td>1</td>
<td>.38</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td>Moratorium</td>
<td>-.06</td>
<td>.42</td>
<td>1</td>
<td>.42</td>
<td>.27</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>-.26*</td>
<td>.15</td>
<td>.42</td>
<td>1</td>
<td>.36</td>
</tr>
<tr>
<td>Diffusion</td>
<td>-.13</td>
<td>.21</td>
<td>.41</td>
<td>.38</td>
<td>1</td>
</tr>
</tbody>
</table>

* = significant at .05 level

Note: R values below diagonal represent for girls; r values above diagonal represent for boys.

For boys’ sample, correlation table indicated that self-monitoring is positively and significantly correlated with identity achievement (.21, p < .02) and identity moratorium (.20, p < .03). For girls’ sample, correlation table indicated that self-monitoring is negatively and significantly correlated with identity foreclosure (-.26, p < .002).

Table 3: Multiple Regression Table: Boys and Girls, N=200

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R Square Adjusted R Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>.26a</td>
<td>.06</td>
<td>.02</td>
<td>1.56</td>
</tr>
<tr>
<td>Girls</td>
<td>.28a</td>
<td>.08</td>
<td>.04</td>
<td>2.38</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Diffusion, Achievement, Foreclosure, and Moratorium

b. Dependent Variable: Self-Monitoring

For boys’ sample, the model summary showed that multiple correlation value is .26 for all the variance; but the value was not significant. For girls’ sample, the model summary showed that multiple correlation value is .28 for all the variance; predictors explained 8% of the total variance, and the value was significant at .05 level (F = 2.38).
The present study was conducted in order to explore the (a) relationship between identity status and self-monitoring behavior and (b) gender differences in identity as well as self-monitoring in an Indian sample of adolescents. This relationship between identity status and self-monitoring acknowledges the interrelatedness between social expectations (i.e., expectations of the social context) and individual self-understanding with respect to these two central features of adolescent development. India witnesses the interaction of Western values of modernization with a traditional culture, and conducting such a study aids in further exploring the correlates of identity formation as well as the generalization of identity development theory in a non-Western context.

As indicated by the results of the present study, self-monitoring was seen to be positively and significantly correlated with identity achievement and moratorium in boys. A positive and significant correlation was found between self-monitoring and identity foreclosure among girls. Not only these results maintain consistency with theoretical expectations, they also partially replicate Taylor’s (1987) report which also highlights a relationship between the scores of self-monitoring and identity achievement - thereby conducing to the view that during adolescence, developing an adherence to an identity of choice leads to a balanced formation of self which does not necessarily have to be acclimatized to different partners and situations. Because the anticipated ‘adult roles’ of homemaking and motherhood are made clear to the growing girl rather early in her life, the future appears more foreclosed for female Indian adolescents; they tend to adopt the various traditional values and beliefs of the lineage they belong to, and are more in favor of pursuing life goals set by their elders and/or significant authority figures. Identity-achieved male Indian adolescents are able to manage a consistent presentation of the self in multiple contexts because they are more certain of who they are independently, regardless of their social climate. In a contrasting view, adolescents who are going through the early stages of identity development may take cues from others on monitoring, regulating, and controlling their behavior in public.

### Table 4: Beta Table: Boys and Girls, N = 200

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>BoysGirls</td>
<td>7.92511</td>
<td>8.888</td>
</tr>
<tr>
<td>Achievement</td>
<td>BoysGirls</td>
<td>.172086</td>
<td>1.492</td>
</tr>
<tr>
<td>Moratorium</td>
<td>BoysGirls</td>
<td>.094044</td>
<td>.729</td>
</tr>
<tr>
<td>Foreclosure</td>
<td>BoysGirls</td>
<td>.045-273</td>
<td>.369-2.558</td>
</tr>
<tr>
<td>Diffusion</td>
<td>BoysGirls</td>
<td>.071-066</td>
<td>.626-618</td>
</tr>
</tbody>
</table>

* = Significant at .05 level

Beta table showed significant value of identity foreclosure in only the girls’ sample. However, there was no significant predictor in the boys’ sample.
Consistently, male moratorium-status adolescents showed significant level of self-monitoring; generally considered a more mature stage of identity development than diffusion, moratorium increases with age the same way achievement does. The importance of the link between self-monitoring and mature stages of identity in an Indian sample suggests considerable amount of generalization to this interrelation in self-understanding among adolescents. The contribution to maturity in self-understanding by identity achievement results not only in a more genuine self-presentation in social contexts but also a reliable one. In order to bring about the confirmation of such a conclusion, however, further studies must be conducted in both the Western and non-Western contexts, hence exploring some other features of self-understanding which may mediate and/or elucidate this relationship.

The Indian society upholds tradition-backed stability and often stifles imagination-backed initiative while exerting strong pull towards maintaining psychological status quo around prescriptive role acts and hierarchies. The representatives of adult generation impose pedantic constraints on the imagination and initiative of the growing child in the name of guidance and protection – as a result of which he or she learns to constrict himself or herself to the point of overall inhibition, building deep and lasting resentments against the arbitrary power of the patronizing authority. For the creation of a wholesome identity in coming generations, healthy individualism needs to be promoted in youth. A spirit of inventiveness and imagination should be encouraged so that the young can learn what they must do by doing what they like to do. Also, the intergenerational relationships should be democratic because this much needed companionship holds out the possibility of keeping the hidden hatreds and envy between generations within limits and setting free the purposeful initiative of the young in the direction of futures which are permissible as well as possible and tangible. A new ethic needs to be inculcated in the coming generations that will reconcile the efficiency and individualism of free market with fairness and concern for the community at large.

REFERENCES


ABSTRACT

The aim of this study is to assess the relationship between psychological capital and subjective vitality and contribution of psychological capital in developing subjective vitality. The data was collected randomly from 200 bank employees in Jammu using Psychological Capital Questionnaire and Subjective Vitality Scale. Pearson’s Correlation as well as standard simple multiple regression were applied. A significant and positive correlation between all the dimensions of psychological capital namely efficacy, hope, optimism, resilience, and subjective vitality have been found. There has been significant contribution of each dimension of psychological capital in development of subjective vitality. These findings are relevant to human resource development.

Keywords: Hope, Optimism, Psychological capital, Resilience, Self efficacy and Subjective vitality.

The concept of positivity has recently been applied in the area of organizational behaviour (Luthans & Youssef, 2007). Positive organizational behavior emphasizes on developing the organization and the employees while nurturing the personal characteristics in employees. Self efficacy, hope, resilience, and optimism are the personal characteristics of the employee which when combined produce a higher structure called as psychological capital (PsyCap). It is evident that positivity brings about elevation of various desirable outputs in the work settings which further can promote the effectiveness and optimum outputs in an organization. PsyCap is a construct which is liable to change and has scope for improvement (Luthans, 2002). It requires constant motivation and upgrading specially needs

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attention lest it shows retrogression or fall in levels which can prove to be non conducive. PsyCap has an impact on the performance and has potential to bring positive organizational change (Avey, Wernsing, & Luthans, 2008). The way personal characteristics such as self efficacy, hope, resilience and optimism are evaluated by the employee has positive impact on well-being (Judge, Van Vianen, & De Pater, 2004).

Vitality refers to positive feelings such as invigorated mood, having high spirit and enthusiasm (Ryan & Fredrick, 1997). It is subject to change and is dynamic in nature. It is a function of both physical and eudaimonic factors (Younes, 2011) and is an indicator of personal well-being. When an individual is aware of such experiences or feel that the energy is available to self it is called as subjective vitality. The switches of subjective vitality are in the control of the employee for which an employee has accountability. To work with positive feelings and to enhance these is essential. Subjective vitality emerges from internal factors (Ryan & Fredrick, 1997) such as self esteem, perceived ability, positive feelings etc. Vitality reflecting energy may be effectively used for increasing the output and purposive actions (Ryan & Deci, 2008). Subjective vitality helps in indulging deeply into organizational tasks. In terms of involvement in work, the people reflecting vitality is more likely to be active and productive (Ryan & Fredrick, 1997). Employees with vigor tend to experience high levels of energy at work and invest effort in work (Ouweneel, Le Blanc, & Schaufeli, 2012).

The dimensions of PsyCap have been linked with the subjective vitality. Sweetman and Luthans (2010) have reported that the hope sets in employee the energy to work and fills him with an enthusiasm or vigor. It reflects the motivational property of PsyCap. Hope certainly is instrumental in building up higher levels of motivation. PsyCap acts as personal characteristic in generation of positive state in an employee which could be consequential for the work in the organizational set up. As per Snyder, Rand, and Sigmon, (2002) hope is perceived as the capability of an individual to plan in such a manner so that they are closer to the goal or are able to achieve the target and it motivates the person through goal directed energy used to achieve the target. It is evident that hope is a positive motivational state. Studies on relationship between social support and subjective vitality are suggestive of possible role of self efficacy in development of subjective vitality (e.g. Kasser & Ryan, 1999; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). The self efficacy brings the sense of self reliance in the employee in their own capacities even during the challenging situations (Bandura, 1997). Deep confidence in the potential enables the employee to tackle ups and downs and arrive at decisions. It allows to confidently derive conclusions in analytical and critical manner. The employees high on optimism are better equipped with the coping strategies and are most likely to adapt at the workplace (Luthans and Youssef, 2007). The component of optimism provides novice workable and most
situations, pathways to enable to adjust and adapt. The link between resilience and vitality has been established based on the studies on the patients (e.g. Cromm, 2012). In a study conducted on a sample of 263 teachers in Iran, Kataki, Rezai, and Gorji (2013) reported correlation between dimensions of PsyCap and subjective vitality.

A person with subjective vitality is capable of becoming fully functioning and self-realized. Vitality corresponds to the experience of oneself as potential ‘origin’ of action (deCharms, 1968). More the vitality greater the goal oriented involvement in actions. There are hardly any studies that have explored subjective vitality at work (Shirom, 2003). The positive states are just not the opposite of negative states and have their own precursors and consequences which need to be researched or explored. So far the studies conducted on antecedents and consequences of subjective vitality in work settings are in the stage of infancy. Yet to date there are only a few attempts to link up PsyCap and subjective vitality in organizations. Emphasis has been laid on increasing positive emotions and level of personal resources in order to create an engaged workforce (Ouweneel, Blanc, & Schaufeli, 2012).

With this backdrop current study aims to investigate the relationships between PsyCap (hope, optimism, self-efficacy and resilience) and subjective vitality in the bank employees in Jammu (India). The main focus will be on the possible contribution of PsyCap (self efficacy, hope, optimism and resilience) on subjective vitality.

Hypotheses

**H1** There will be significant correlation between PsyCap (self efficacy, hope, optimism and resilience) and subjective vitality.

**H2** PsyCap (self efficacy, hope, optimism and resilience) will be the significant predictor of subjective vitality.

**METHOD**

**Sample**

Using random sampling technique data was collected from 200 participants from various banks in Jammu, Jammu and Kashmir (India). In all the participants were in the age range 20-60 years with mean age 29.79. Of the total sample only 64 (32%) were male and 136 (68%) were female. As per the marital status 77 of 200 (38.5%) were married and 123 of 200 (61.5%) were unmarried. Seventy six of 200 (38%) were from rural area and 124 of 200 (62%) were from urban area. In terms of educational qualification 59 (29.5%), 90 (45%), and 51 (25.5%) were higher secondary, graduates, and post graduates respectively. Length of service of 166 (83%) participants was up to 10 years, 22 (11%) participants was beyond 10 years to 20 years, and 12 (6%) was beyond 20 years.

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Procedure

The data collection was done from the branches of the banks located in rural area as well as urban area. Two branches of each bank i.e. one from rural area, Akhnoor and one from the urban area i.e. Jammu city were chosen. Sample was drawn from the branches of Jammu and Kashmir Bank, J&K Grameen Bank, HDFC Bank, Punjab National Bank, Citizen co-operative Bank, State Bank of India, Jammu Central Co-operative Bank. The researcher obtained permission of the bank manager of each branch and sought a list of employees in the bank. Using the random number generator the prospective participants were selected. On the stipulated date and time as per the appointment, the bank employees were approached. The questionnaires were given to the employees individually. Confidentiality of the responses was assured. The care was taken that each employee willing to participate filled in the questionnaire on their own. The filled in questionnaires were taken back immediately. The scoring was done as per the scoring instructions. The data was coded in Statistical Package for Social Sciences- Version 20.

Tools

**Psychological Capital Scale** (Luthans, Avolio, Avey, & Norman, 2007) is a twelve item and six point likert-type scale ranging from strongly agree to strongly disagree. The items for twelve item scale are extracted from twenty four item version of the scale. There are four components in the scale namely self efficacy (items 1-3), hope (items 4- 7), resilience (items 8-10) and optimism (items 11-12). The score of each dimension is averaged and the composite score is also calculated. The PCQ-12 has shown to have high reliability ranging from .87 to .93 (Baron, Franklin, & Hmieleski, 2013; Luthans, Youssef, Sweetman, & Harms, 2013; Norman, Avolio, & Luthans, 2010).

**Subjective Vitality Scale** (Ryan & Frederick, 1997) assesses the subjective vitality at state level. It is a seven item scale with seven point Likert type items ranging from ‘not at all true’ to ‘very true’. The item 2 is reverse scored and is averaged with other items. The reliability coefficient of the scale is .84 to .86 (Ryan & Frederick, 1997).

Statistical analysis

Statistical Package for Social Sciences for Windows Version 20 was used for the calculations. Pearson’s correlation and standard simple multiple regression were applied for the statistical analysis.

RESULT AND DISCUSSION

The result of some basic statistics (descriptive statistics) of study variables is presented in the Table 1. The Pearson’s Product Moment Correlation was calculated for PsyCap (self efficacy, hope, optimism, and resilience) and subjective vitality (Table 2).
Table 1: Descriptive statistics for the study variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>S. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self efficacy</td>
<td>200</td>
<td>13.65</td>
<td>3.96689</td>
</tr>
<tr>
<td>Hope</td>
<td>200</td>
<td>17.41</td>
<td>4.61294</td>
</tr>
<tr>
<td>Resilience</td>
<td>200</td>
<td>13.07</td>
<td>3.23290</td>
</tr>
<tr>
<td>Optimism</td>
<td>200</td>
<td>9.35</td>
<td>2.68206</td>
</tr>
<tr>
<td>Subjective vitality</td>
<td>200</td>
<td>35.12</td>
<td>7.52521</td>
</tr>
</tbody>
</table>

Table 2: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Self Efficacy</th>
<th>Hope</th>
<th>Resilience</th>
<th>Optimism</th>
<th>Subjective Vitality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Efficacy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>.612**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>.484**</td>
<td>.479**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>.456**</td>
<td>.438**</td>
<td>.398**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Subjective Vitality</td>
<td>.551**</td>
<td>.523**</td>
<td>.592**</td>
<td>.471**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Significant at .01 level

As per the Table 2 the correlation of all the dimensions of PsyCap and subjective vitality has been found to be highly significant at .01 level. All the correlations are moderate and positive. This clearly shows that higher the PsyCap (self efficacy, hope, resilience, and optimism) of an employee greater is the subjective vitality likely to be experienced and vice versa. In a study conducted on nurses in Korea, Lee and Oh (2007) also reported a positive relationship between self efficacy and vitality. Resilience has been also linked with subjective vitality (Cromm, 2012). Positive relationship between self efficacy, hope, resilience and optimism were reported in a study conducted on elementary teachers in Iran (Kataki, Rezai, & Gorji, 2013). In the light of the previous studies the hypothesis stating that there will be significant correlation between PsyCap (self efficacy, hope, optimism and resilience) and subjective vitality is accepted.

A standard multiple regression analysis was conducted to evaluate how much PsyCap (self efficacy, hope, resilience, and optimism) scores predicted subjective vitality in the bank employees. The linear combination of PsyCap (self efficacy, hope, resilience, and optimism) scores was significantly related to subjective vitality in bank employees, F (4, 195)=45.957, p < .001). The multiple correlation coefficient was .697, indicating that 48 percent of variance of the subjective vitality can be accounted for by the linear combination of PsyCap (self efficacy, hope, resilience, and optimism) scores. The multiple R for the relationship between the set of independent variables and dependent variable is 0.697 which is strong. The probability of the F statistic (45.957) for the overall regression relationship is
<0.001, the null hypothesis that there is no relationship between the set of independent variables (self efficacy, hope, resilience, and optimism) and the dependent variable (subjective vitality) is rejected. Rather there is statistically significant relationship between set of independent variables (self efficacy, hope, resilience, and optimism) and dependent variable (subjective vitality). For self efficacy, the probability of \( t \) statistic (5.312) for the \( b \) coefficient .389 is <0.01. Hence it is concluded that there is statistically significant relationship between self efficacy and subjective vitality. The \( t \) value (2.419) for the \( b \) coefficient .270 is <.05 so the relationship between hope and subjective vitality is also established. In case of resilience the \( b \) coefficient .833 with \( t \) value (5.868) is <.001 hence the resilience is also associated with subjective vitality. The \( t \) value (2.547) for \( b \) coefficient for optimism also is <.05 showing an association between optimism and subjective vitality. This leads to acceptance of the research hypothesis that PsyCap (self efficacy, hope, optimism and resilience) will be the significant predictor of subjective vitality.

The studies conducted in the past show that PsyCap is very important in determining positive organizational behavior (Avey, Luthans, & Jensen, 2009; Avey, Wernsing, & Luthans, 2008; Luthans, Avolio, Avey, & Norman, 2007). The employees benefit from positive PsyCap and are likely to work with energy and vigor. People working with vitality are self realized and can be an asset to an organization. This gives us an insight into the need of creating such conditions so that the employees can experience internal or personal states such as self efficacy, hope, resilience and optimism. A little research in the past has examined an association between PsyCap (self efficacy, hope, resilience and optimism) and subjective vitality in work settings. The employees high in terms of PsyCap are capable of providing higher values to the organization. Thus, by investigating the association between these two factors (PsyCap and subjective vitality), the present study facilitates our understanding of how PsyCap determines experiences of vitality in the employees.

Implications

The results confirm the importance of increasing the positive PsyCap and consequently the vitality in the employees so that they may contribute to the organization while becoming fully functional. Positive organizational psychology calls for application of its principles and findings for the enhancement of positive attributes among the bank employees and for their optimal development. PsyCap can be developed (Luthans, Avey, Avolio, Norman, & Combs, 2006). Based on the findings, recommendations are offered to managers, practitioners and policy-makers for an increased focus on developing personal capacities which would focus on bank employees physical and eudaimonic well-being. Providing congenial, positive and energizing work environment is necessary for optimum development and maintenance of personal capacities or resources.

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As per broaden and build theory the positive emotions can build positive resources and may predict well-being in the long run (Fredrickson, 2001). These findings are relevant to human resource development. The study adds to the existing literature as the exploration into these variables in work settings is in initial stages.

**DIRECTIONS FOR FUTURE RESEARCH**

While the findings support the notion that PsyCap (self efficacy, hope, resilience, optimism) is associated with subjective vitality, the research is broad and provides good starting point for future research that might be oriented toward finding out the antecedents of PsyCap and also exploring the other possible determinants of subjective vitality. Future research may be oriented towards determining the causal relationships while incorporating the longitudinal designs.

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INFLUENCE OF DIETARY PREFERENCES ON INATTENTION, HYPERACTIVITY AND IMPULSIVITY IN CHILDREN

Jaya A.T*, and Chandana D. Karathully**

ABSTRACT
The dietary preferences are changing among children and youngsters. Their changed dietary preferences have then impact on physical and psychological health of children. This article examines the relation between dietary preferences and the inattention, hyperactivity and impulsivity in children between the ages of 5 to 15 who were divided on the basis of preference for homemade food, non-vegetarian food and junk food. They were assessed on the domains of inattention, hyperactivity and impulsivity using the DSM – IV- criteria and ICD -10 criteria for inattention, hyperactivity and impulsivity in Attention Deficit Hyperactivity Disorder. The results indicated that who preferred non-vegetarian food and junk food had more problems of inattention, hyperactivity and impulsivity than other children who preferred homemade food.

Key Words: Inattention, Hyperactivity, Impulsivity, Dietary preferences, Junk food and Home made food.

Food is one of the most essential factors for human existence and well-being. Ayurveda considers food as one of the pillars that help to sustain life by providing strength and growth of the human body. According to Upanishads, Man is what he eats. Through proper consumption of food, one can maintain health, and the improper use and faulty consumption of food can lead to different kinds of illnesses. Hence, Ayurveda explains several dietary regimens for the adequate consumption of food, like consideration of quality, processing and quantity of food before consumption. The usage of wholesome food that is appropriate to the season and particular bodily characteristics were considered to be the key to

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** PG Scholar, Department of Psychology, Prajyoti Niketan College, Pudukad, Thrissur, Kerala, chandanadk@gmail.com, 8547452283
maintaining health and vitality. However, the development of different dietary preferences and practices has led to health crises among people. The increasing incidence of various types of lifestyle disorders is an example for this. McCartney (1969) holds that many of our foodstuffs are now artificial, and specially designed to tickle the palate and tempt the appetite and that we must exercise great care in the selection of our food. But, the children of the current era are not fond of the traditional tastes. They are attracted to the fast foods and carbonated drinks than healthy snacks.

As our development and survival are dependent on the nutrition we receive, the impact of the food on our well being is beyond questioning. Several researches have been conducted in the area of dietary habits. Bree, Przybeck and Cloninger (2006) investigated association between diet and nature, and reported that differences in personality style are reflected in the diet. Harikrishnan and Immanuel Thomas (2009) studied the dietary preferences in relation to personality and character and found that the vegetarians were lower in activation and at the same time greater instability and thoughtfulness dimension of the temperament compared to non-vegetarian group. Different researches are being conducted in the domain of how the nutritional quality of what we eat can affect our behavior. Several reports suggest that the nutritional deficiencies can lead to several disorders by affecting the brain functioning.

Attention-deficit/hyperactivity disorder (ADHD) is characterized by a pattern of diminished sustained attention and higher levels of impulsivity in a child or adolescent than expected for someone of that age and developmental level. Whereas in the past, hyperactivity was believed to be the underlying impairing symptom in this disorder, the current consensus is that hyperactivity is often secondary to poor impulse control. Impulsivity and hyperactivity share one dimension in today’s diagnostic criteria for ADHD. Current consensus that the etiology of ADHD involves complex interactions of neuroanatomical and neurochemical systems. The suggested contributory factors for ADHD include prenatal toxic exposures, prematurity, and prenatal mechanical insult to the fetal nervous system.

Food additives, colorings, preservatives, and sugar have also been proposed as possible causes of hyperactive behavior. The controversy began in 1973 when Benjamin Feingold, MD, Chief Emeritus of the Department of Allergy at the Kaiser Permanente Foundation Hospital and Permanente Medical Group in San Francisco, presented an invited paper at the annual meeting of the American Medical Association. He proposed that much of the hyperactivity and learning problems seen in school-aged children were because of the ingestion of certain foods and food additives. He suggested a diet called Kaiser Permanente diet or K-P diet, free of foods containing natural salicylates and all artificial food colors (AFCs) and flavors which could be effective in children with ADHD. Some studies have indicated that some children with ADHD, in addition to being sensitive to artificial

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food dyes, are also sensitive to common, nonsalicylate containing foods (milk, chocolate, soy, eggs, wheat, corn, legumes) and to grapes, tomatoes, and orange, which do contain salicylates. Since the dietary practices are learned during the childhood years, the need to educate them about and develop healthy dietary preferences is assuming greater importance in the current era.

Inattention is inability in arousing or sustaining attention evidenced in both study and play activities. Hyperactivity is brought about by excessive physical activity or restlessness as shown by running and climbing around or fidgeting with hands excessively. Impulsivity is the nature of behavior that is acted out without forethought and considering the odds. Even though, the three dimensions come under the spectrum of Attention Deficit Hyperactivity Disorder, there is increased prevalence of inattention, hyperactivity and impulsivity in children these days even though they cannot be diagnosed as ADHD. The present study aims to find how dietary preferences are related to the reading habits and the dimensions of inattention, hyperactivity and impulsivity in children.

**METHOD**

**Sample**

The sample for the study consisted of 59 children of age from 5 to 15, who are randomly selected from different schools of Thrissur Town, Kerala. They are divided into two groups of age 5 to 10 (N = 21) and 11 to 15 (N = 38). There were 39 male children and 20 female children.

**Procedure**

The respondents indicated their preference to homemade food, non-vegetarian food and junk food. The survey method was used and the variables were assessed through questionnaires that were filled out by the children. The respondents were grouped into different groups according to their preferences. The two groups on their preference for homemade food were those who prefered or didn’t prefer. The four groups regarding preference for non-vegetarian/junk food were those who never take them, who occasionally take them, who often take them and who take them every day.

The inattention, hyperactivity and impulsivity of the were measured using the DSM – IVcriteria and ICD -10 criteria for inattention, hyperactivity and impulsivity in Attention Deficit Hyperactivity Disorder. The results were analyzed using SPSS software.

**RESULT AND DISCUSSION**

Initially the scores obtained by the lower and higher age respondents on inattention, hyperactivity and impulsivity were compared. The two groups (5-10 years) and (11-15 years) differed significantly in hyperactivity and impulsivity, and from the mean score it can be seen that the children belonging to the group
of 5 to 10 years had higher scores on hyperactivity and impulsivity. Even though ADHD can’t be diagnosed before 7 years of age it is noted that the symptoms can be found in younger children too. Venkata and Panicker (2013) also reported that prevalence of ADHD in primary school children in India was 11.23%. Thus it appears that ADHD symptoms in younger children diminish as they approach adolescence.

Table 1: Mean, standard deviation and t scores for the two age groups

<table>
<thead>
<tr>
<th>Domain</th>
<th>Age – groups</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>group 1</td>
<td>21</td>
<td>5.05</td>
<td>6.26</td>
<td>0.39</td>
</tr>
<tr>
<td></td>
<td>group 2</td>
<td>38</td>
<td>4.39</td>
<td>6.27</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>group 1</td>
<td>21</td>
<td>3.86</td>
<td>6.64</td>
<td>2.18 *</td>
</tr>
<tr>
<td></td>
<td>group 2</td>
<td>38</td>
<td>0.53</td>
<td>2.93</td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>group 1</td>
<td>21</td>
<td>1.29</td>
<td>2.79</td>
<td>1.17 *</td>
</tr>
<tr>
<td></td>
<td>group 2</td>
<td>38</td>
<td>0.50</td>
<td>1.72</td>
<td></td>
</tr>
</tbody>
</table>

*p< .001

Table 2: Mean, standard deviation and t scores for gender groups

<table>
<thead>
<tr>
<th>Domain</th>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>Male</td>
<td>39</td>
<td>5.87</td>
<td>6.83</td>
<td>2.62*</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>20</td>
<td>2.20</td>
<td>3.93</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>Male</td>
<td>39</td>
<td>2.51</td>
<td>5.79</td>
<td>2.53**</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>20</td>
<td>0.15</td>
<td>0.49</td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>Male</td>
<td>39</td>
<td>1.15</td>
<td>2.60</td>
<td>2.63**</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>20</td>
<td>0.05</td>
<td>0.22</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01; **p < .001

Table 2 indicates the comparison where the two gender groups differed significantly on all the domain of ADHD. From the mean values, it is clear that the male children were higher on the three dimensions. Earlier researches indicate that ADHD is more prevalent in boys than in girls, with the ratio ranging from 2 to 1 to as much as 9 to 1(Sadock & Sadock, 2007). Venkata and Panicker (2013) also found that prevalence among primary school children in Indian context to be higher among the males (66.7%) as compared to that of females (33.3%).

Table 3 shows the comparison of groups according to their preference for homemade food on inattention, hyperactivity and impulsivity. The result reveals that there are significant differences between the groups in inattention, hyperactivity and impulsivity. From the mean values it is evident that the children who don’t prefer homemade food (preference 0) have higher scores on inattention, hyperactivity and impulsivity. The symptoms of inattention,
hyperactivity and impulsivity are more shown by the children who don’t prefer homemade food.

**Table 3: Mean, Standard deviation and t scores obtained by the groups based on homemade food preference**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Preference</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>0</td>
<td>27</td>
<td>6.33</td>
<td>7.95</td>
<td>1.88*</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>32</td>
<td>3.19</td>
<td>3.85</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>0</td>
<td>27</td>
<td>3.59</td>
<td>6.70</td>
<td>2.68*</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>32</td>
<td>0.13</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>0</td>
<td>27</td>
<td>1.48</td>
<td>2.94</td>
<td>2.20*</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>32</td>
<td>0.19</td>
<td>0.90</td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

**Table 4: Results of one way ANOVA obtained by the groups based on junk food preference**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>Between groups</td>
<td>176.714</td>
<td>3</td>
<td>58.905</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>2069.082</td>
<td>55</td>
<td>37.620</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2245.797</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>Between groups</td>
<td>350.827</td>
<td>3</td>
<td>116.942</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>999.275</td>
<td>55</td>
<td>18.169</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1350.102</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>Between groups</td>
<td>60.883</td>
<td>3</td>
<td>20.294</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>213.253</td>
<td>55</td>
<td>3.877</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>274.136</td>
<td>58</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01; **p < .001

Table 4 indicates the results on a comparison between the groups on their preference for junk food on the three domains of inattention, hyperactivity and impulsivity. The results show that the groups (who never take junk food (N= 4), who take occasionally (N=26), who take often (N=28), who take everyday (N=1) differed significantly on the areas of hyperactivity and impulsivity, but not on inattention..

**Table 5: Results of one way ANOVA obtained by the groups based on non vegetarian food preference**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattention</td>
<td>Between groups</td>
<td>342.448</td>
<td>3</td>
<td>114.149</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1903.348</td>
<td>55</td>
<td>34.606</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2245.997</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>Between groups</td>
<td>198.618</td>
<td>3</td>
<td>66.206</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1151.484</td>
<td>55</td>
<td>20.936</td>
</tr>
</tbody>
</table>
Influence of Dietary Preferences on Inattention, Hyperactivity...

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>1350.102</th>
<th>58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulsivity</td>
<td>Between groups</td>
<td>34.776</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>239.360</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>274.136</td>
<td>58</td>
</tr>
</tbody>
</table>

*p < .05

Table 5 shows a comparison between groups on the non-vegetarian food preference on the dimensions of inattention, hyperactivity and impulsivity. The groups (children who never take non-vegetarian food (N=6), take occasionally (N=20), take often (N=19) and take everyday (N=14)) were analyzed by one way ANOVA. The results show that there were significant differences in the scores obtained by groups on all three domains. That is the groups differ significantly in the scores of inattention, hyperactivity and impulsivity.

Table 6: Coefficients of correlation obtained among different variables

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Homemade fd pref.</td>
<td>1</td>
<td>-.480**</td>
<td>-.153</td>
</tr>
<tr>
<td>Junk fd pref.</td>
<td>-.480**</td>
<td>1</td>
<td>.472**</td>
</tr>
<tr>
<td>Non veg fd pref.</td>
<td>-.153</td>
<td>.472**</td>
<td>1</td>
</tr>
<tr>
<td>Inattention</td>
<td>-.254</td>
<td>.195</td>
<td>.146</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>-.361**</td>
<td>.382**</td>
<td>.146</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>-.299*</td>
<td>.289*</td>
<td>.109</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001

The obtained data was also subjected to correlational analysis in order to study the relation between preferences. Table 6 shows the Pearson correlation results of the above-mentioned variables. It gives a better picture on how these variables are related to each other.

As per the results, the hyperactivity is positively correlated to junk food and negatively correlated to preference to homemade food. As the food preferences are also related to impulsivity in the same manner, both hyperactivity and impulsivity are influenced by the food preferences. It is strongly indicated by the negative correlation of these dimensions to preference to homemade food and positive correlation of these to preference to junk food. There is no conclusive evidence about the relation of diet and ADHD even though there are several hypotheses about the involvement of food additives, certain kind of food materials and sugar can enhance the hyperactive behavior. The studies regarding the diet preference and ADHD are rare, but further researches should focus on the changing lifestyle and the increasing incidence of ADHD among children. There are also negative correlations among the homemade food choices preference to junk food. This indicates the pattern of interests in the children of the new generation. They prefer the western lifestyle and food preferences than having the conventional lifestyle.
of Keralites. The positive correlation of non-vegetarian food preference to junk food preference and negative correlation to homemade food preferences also indicate this. The changing lifestyle and urbanization also affecting the choice of children can lead to a number of health hazards like lifestyle diseases. The developing pattern of inability of children to concentrate in studies or to utilize their aptitudes constructively to their scholastic development can be attributed to their changing preferences.

Further studies are to be conducted to explore more on the impact of these problems. More research is required to explore and probe the situation further to develop a robust theoretical model relating the behavior problems to the changing pattern of lifestyle.

REFERENCES


HEALTH HABITS, KNOWLEDGE AND HEALTH BEHAVIOUR AMONG SCHOOL-GOING ADOLESCENTS

Salma Kaneez

ABSTRACT

The purpose of the present endeavour is to ascertain habits and existing level of awareness of life-style related diseases among school-going adolescents and its impact on their health behaviour. Adolescence is a time of experimentation where healthy and unhealthy behaviours are either discarded or retained as lifelong habits. During this period, new and healthier behaviours can be learned and established. Adolescents seek independence in most areas of health behaviour. Their habits and knowledge of health maintenance such as exercise, nutrition/diet, and knowledge about chronic conditions of AIDS, cancer, asthma and risk behaviours including alcohol use, smoking, and drug abuse may influence health related behaviour. A sample of 65 adolescents (35 boys, 30 girls) was prepared and age appropriate self-designed questionnaires were employed to collect the information. Chi Square and Correlation were used to analyse the collated data. The results revealed poor level of awareness of the life-style diseases, their symptoms, in general and associated behavioural and risk factors, in particular. A significant positive relation was found between knowledge about life-style diseases and health behaviour among adolescents. Findings have implications for preventive healthcare policies in India where increasing burden of non-communicable diseases can be arrested in order to maximize healthcare needs of the people with the given health delivery system.

Keywords: Health habits, Knowledge, Health behaviour, Adolescents and Preventive health care.

Adolescence is the life stage when the individuals begin to formulate their health habits. Many healthy and unhealthy habits developed in adolescent period have life-long impact on health outcome. During adolescence, young people are

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assigning responsibility for their own eating behaviour, health attitudes and behaviour (Fleming-Moran & Thiagarajaht, 2005). Adolescents also carry the highest risk of morbidity and mortality from life-style related diseases. Health reports revealed that burden of non-communicable diseases is increasing globally and poses a major public health concern. The non-communicable diseases are estimated to account for 53% of all deaths in India (WHO, 2005). The life-style diseases like diabetes mellitus, hypertension, coronary heart diseases and respiratory diseases have been related to the prevalence of risk factors in childhood. Several studies have documented that people of early twenties tend to engage in behaviours damaging to health to a greater extent than those in other age ranges. Many of the risk factors for non-communicable diseases like smoking, physical inactivity, inappropriate dietary practices and hypertension have their roots in adolescence (Divakaran et al., 2010). These behaviours may result in immediate health problems and may translate the risk into chronic diseases such as diabetes, hypertension, certain cancers and heart diseases in the long run. In fact, perceptions, beliefs and attitude formed in the early age play an important role in adoption and maintenance of a variety of health and nutritional habits.

Eating pattern established during adolescence may remain throughout the life cycle (Stewart & Tinsley, 1995). Incidence of dietary inadequacies in adolescents is high. An increasing need of independence and a desire to make life style choices that confer to peer ideals and differ from those of family, place adolescents at risk of poor nutritional status (WHO, 2002). Adolescents, therefore, seem to adopt a life-style that negatively affects their nutritional and health status. In a study, Al-Almaie (2005) found that knowledge of healthy diet among school students was inadequate. In western industrialized countries, excessive fat consumption and insufficient fibre, fruit and vegetable consumption are related to health problems. In addition, excessive consumption of calories combined with lack of exercise has made obesity a major health problem. Dietary and exercise habits often originate in childhood, but are established more permanently during adolescence (Cohen, Brown, & Felix, 1996). Despite the well known benefits of physical activity, most adults and children lead a sedentary life-style and are not active enough to achieve these health benefits. The potential health gains of regular exercise include lower cardio-vascular morbidity and mortality, lowered BP, increased metabolism of carbohydrates, and fats as well as range of psychological benefits such as improved self esteem, mood status, reduced life stress and anxiety. Healthy habits among children, therefore, lay the groundwork for the positive youth development. Thus, socio-cognitive factors play fundamental role in influencing health behaviours and health outcomes during the growing stage.

Health behaviour refers to any activity undertaken by individual regardless of actual or perceived health status for the purpose of promoting, protecting or maintaining health and well-being. In the present study, health behaviour was
defined in terms of attitude towards health care, health consciousness and carelessness. Behaviours within this definition include medical service usage, compliance with medical regimens, and self-directed health behaviour. Behaviour patterns, actions and habits that relate to health maintenance, restoration and health improvement are also covered in the definition (Gochman, 1997).

**Objective**

The main objective of the study was to assess the adolescents' knowledge of life-style related chronic diseases and its association with their health habits and health behaviour /care.

**METHOD**

**Sample**

This was a cross sectional survey. The participants were 65 school-going adolescents (35 male; 30 female). They were between the age of 16-19 years belonging to the lower segment of middle class families (income up to Rs. 20,000 p.m.) attending private secondary/senior secondary schools in Aligarh. Purposive sampling technique was used for data collection.

**Inclusion/Exclusion Criteria**

Adolescents with age range of 16-19 years without any serious illness belonging to lower section of middle class were included in the sample. Others with any serious illness and having upper middle class family status were not the participants of the study.

**Tools**

(i) **Knowledge Scale (K-Scale)** developed by the researcher was used to measure the knowledge about four life-style related diseases (i.e. diabetes, hypertension, asthma and heart disease). The scale has 16 items related to the definition/ meaning, symptoms, causes and risk factors about diseases (4 items each). It has three response categories: Yes (2), Do not know (1), and No (0). The scores for subscales ranged between (0-8) and for full scale (0-32). High scores indicate good knowledge about life-style related diseases. Participants were divided into three categories as showing poor, fair and good knowledge on the basis of percentile score.

(ii) **Health Habits Scale** were measured by self-developed Health Habits Scale. It consists of two parts. First part measures diet and nutritional intake. It has 7 items with four response categories ranging from Not at all (0) to Always (3). Scores ranged between 0-21 with high scores indicating healthy habits. The second part measures exercise and physical activity. It has 4 items with scores range of 0-12, where high scores indicating physically active and vice-versa.
(iii) **Health Care Scale:** Health Care Scale of Adhami & Kureshi (1992) was used to measure attitude towards health care. The scale comprised 30 items, out of this 15 reflect health consciousness and other 15 health carelessness (3, 4, 6, 8, 9, 10, 13, 15, 18, 19, 21, 24, 27, 29 and 30). It is a 5-point Likert Scale consisting of Strongly Agree to Strongly Disagree response categories. Items measuring health consciousness get a score of ‘5’ for Strongly Agree, and ‘1’ for Strongly Disagree. While, items measuring carelessness in attitude are scored in reverse order. The alpha value with the present sample was found to be 0.70.

**Statistical Analysis:** Descriptive statistics, frequency, percentage and Pearson’s Correlation were used for analysis.

**RESULT AND DISCUSSION**

**Demographic Characteristics of Respondents**

About 42% of participants belonged to the lower socio-economic strata, and 58% hailed from middle income groups of the society. Out of 65 students, 65.3% of respondents’ parents were having education up to senior secondary school and the rest were graduates. 78.7% had Urban, and 21.3% rural background. Moreover, 32.3% were having the family history of hypertension, 23.1% of diabetes, 15.4% of heart disease, 1.5% of asthma and remaining 27.7% did not show history of any life-style related disease.

**Table-1: Respondents’ Knowledge of life-Style related diseases in terms of Percentage (%) and Frequency.**

<table>
<thead>
<tr>
<th>level of knowledge</th>
<th>Meaning</th>
<th>Symptoms</th>
<th>Behavioural factors</th>
<th>Risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Poor(0-4)</td>
<td>22</td>
<td>33.80</td>
<td>31</td>
<td>47.70</td>
</tr>
<tr>
<td>Fair(5-6)</td>
<td>23</td>
<td>35.40</td>
<td>18</td>
<td>27.70</td>
</tr>
<tr>
<td>Good(7&amp; above)</td>
<td>20</td>
<td>30.80</td>
<td>16</td>
<td>24.60</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

**Respondents’ Knowledge about Life-style related Chronic Diseases**

Table-1 shows respondents’ knowledge of life-style related chronic diseases in terms of understanding, symptoms, behavioural factors and risk factors. As evident from the table, about 33.80% (n=22) adolescents had poor, 35.40% (n=23) had fair and remaining 30.80% (n=20) had good knowledge about definition of diabetes, asthma, hypertension and heart diseases. Overall, more than two-third (69.20%) of adolescent didnot possess good knowledge about meaning of chronic diseases.
Respondents’ Knowledge about Symptoms of Chronic Diseases

Table reveals that 47.70% (n=31) had poor, 27.70% (n=18) had fair and 24.26% (n=16) had good knowledge about the symptoms of diseases. This means only 1/4th of the students show good knowledge of the symptoms of the chronic diseases.

Respondents’ Knowledge about Behavioural factors in Chronic Diseases

As clear from the table, 52.30% (n=34) had poor, 18.50% (n=12) had fair and 29.20% (n=19) had good knowledge about behavioural factors (life-style) in chronic diseases. Approximately 71%, a majority of students had poor to fair knowledge about role of behavioural factors in chronic diseases.

Respondents’ Knowledge about Risk factors in Chronic Diseases

Equal number of respondents, 36.90% (n=24) had poor and fair knowledge respectively and remaining 26.20% (n=17) had good knowledge about risk factors.

On the whole 74% adolescents had inadequate knowledge about the life-style related diseases. The result was consistent with the findings obtained by Nti, et.al. (2012). They reported that the knowledge of diet related diseases in terms of understanding, causes and prevention of diabetes, hypertension, and obesity among day senior high school adolescents in Ghana was poor.

Table 2: Dietary Habits of Students.

<table>
<thead>
<tr>
<th>Health Habits</th>
<th>Male</th>
<th>Female</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Habits</td>
<td>18</td>
<td>24</td>
<td>65.70%</td>
</tr>
<tr>
<td>(51.4%)</td>
<td>(80%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good Habits</td>
<td>17</td>
<td>6</td>
<td>34.30%</td>
</tr>
<tr>
<td>(48.6%)</td>
<td>(20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>30</td>
<td>65</td>
</tr>
<tr>
<td>(100.0%)</td>
<td>(100%)</td>
<td>(100.0%)</td>
<td></td>
</tr>
</tbody>
</table>

Chi Square ($\chi^2$) = 5.57, p< .01

Perusal of table-2 revealed that 80% girls and 51.4% boys had poor and rest 48.6% and 20% girls had good eating habits. This means participants’ dietary habits were generally poor with more than half (65%) having unhealthy eating patterns. They seemed to be unaware about nutritional value of their diet, did not make efforts to eat high fibre and low calories food. The daily consumption of fruits and milk was also low. Significant association($\chi^2 = 5.57$, p= .01) was observed between sex and health habits. More females had poor health habits.
Table 3: Frequency and percentages of Exercise and physical activity among Students.

<table>
<thead>
<tr>
<th>Health Habits</th>
<th>Male</th>
<th>Female</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Habits (Exercise &amp; Physical Activity)</td>
<td>16</td>
<td>25</td>
<td>64.50%</td>
</tr>
<tr>
<td>Good Habits (Exercise &amp; Physical Activity)</td>
<td>19</td>
<td>5</td>
<td>35.50%</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>30</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi Square ($\chi^2$) = 8.27, p=.01

Data presented in Table-3 shows that 64% respondents (83.3% girls and 45.7% boys) had poor exercise-physical activity habits and rest 36 % (16.75% girls & 54.3% boys) had good exercise habits. This means more than half of the students had unhealthy exercise and physical activity habits. Significant statistical associations existed ($\chi^2$ = 8.27, p=.01) between sex and physical activity. Girl students lived more sedentary life as compared to boys. This might be due to the fact that in our society boys were more physically active and enjoyed more freedom to participate in outdoor games, excursions, and join gym, etc.

It is evident from the Table-4 that majority of the students (56.9% ; 76.7% girls & 37.1% boys) were health conscious and only 43.1% (62.9% boys & 23.3% girls) students were careless about their health. Significant Chi-Square value revealed that more girls than boys had positive attitude towards health care when ill.

Table 4: Association between study variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge about Chronic Diseases</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Habits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diet and Nutrition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise and Physical Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01 *p < .05

Table-4 shows that adolescents’ knowledge of chronic diseases was positively and significantly associated with their dietary habits ($r= 0.31$, $p<.05$) and exercise habits. **p<.01 *p < .05

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and physical activity ($r = 0.48$, $p < .01$). But there found a significant negative relation between knowledge about diseases and health carelessness ($r = -0.30$, $p < .05$). This means adolescents with sufficient knowledge about the meaning, symptoms, behavioural factors and risk factors related with life-style diseases were more conscious about their diet and nutrition and tried to take healthy diet i.e. low in salt and calories, high in fibre with fruits. They were also physically active, participate in games and to some extent do exercise/ walk. In contrast, those with poor knowledge were not bothered about healthy/ unhealthy eating habits and spent more sedentary life-style and were more careless about their health compared to their counterparts.

In addition, diet and nutritional habits had significant and positive relationship with exercise and physical activity ($r = -0.28$, $p < 0.05$). Students with healthy eating habits were physically more active and made good use of their leisure time compared to those less conscious about their diet and nutrition. Furthermore, the association between health consciousness and health carelessness (dimensions of health care) among them was found to be significant and positive ($r = 0.49$, $p < 0.01$).

**CONCLUSION**

It was concluded that knowledge (in terms of meaning/understanding, symptoms) about life-style related chronic diseases among school-going adolescents was inadequate in general, and about the behavioural and risk factors associated with chronic conditions like diabetes, hypertension, asthma and heart diseases in particular. Adolescent girls had relatively unhealthier dietary and exercise habits than boys. A significant positive association existed between knowledge about diseases and health behaviour (dietary habits, physical activity / exercise and health consciousness). Nutrition, dietary habits and sedentary life are closely related with most of the life-style related diseases as well as QOL. Healthy dietary habits and regular physical activities/exercise may effectively prevent life-style related diseases and are an important factor in public health promotion. Life-style diseases are the direct result of human behaviour, and adolescence is a timely period to shape and consolidate health enhancing behaviour. Life-style linked habits and practices are modifiable. In this context Social-Cognitive Theory is relevant to show how socio-cognitive variables affect individuals’ behaviour patterns. It provides a framework which has widely been applied for prevention, health promotion and modification of risk behaviours. In sum, promoting healthy behaviour during adolescence will not only impact the development of healthy adult life, but also help to reduce the increasing risk of morbidity and mortality from life-style related diseases. Findings underlined the need to disseminate health knowledge at community and school level, and create an environment to motivate preventive behaviour among adolescents to lead a longer healthy life.
REFERENCES


FAMILY ENVIRONMENT IN RELATION TO EMOTIONAL INTELLIGENCE AND PERSONALITY

Ranjana*

ABSTRACT

In order to explain the influences of family environment on the development of personality traits, and emotional intelligence, the study was conducted on 200 students. The sample was drawn from different colleges of Kurukshetra district of Haryana. The participants were investigated using Family Environment Scale (Moos and Moos, 1981), Multidimensional Measure of Emotional Intelligence (Darolia, 2003) and NEO-Five Factor Inventory (Costa, McCrae, 1991). The intercorrelation matrix revealed 42 significant correlations (35 positive and 7 negative) out of total 100 correlations. None of the measures of family environment shared any significant relationship with agreeableness dimension of personality. The findings of the study suggest strong relationships between different family environment dimensions with the Big Five personality factors and emotional intelligence and support family environment as a significant predictor of the Big Five personality dimensions and emotional intelligence. Therefore, it seems plausible that strategies enhancing the cohesive, encouraging and supportive family environment may play great role in shaping well adjusted personalities.

Keywords: Personality, Family environment and Emotional intelligence

Family relationships play an important role in an individual’s life pattern from early childhood through adulthood. Much of an individual’s personality patterning originates at home. Not only does the child inherit certain family potentialities, but during his developing years, his attitudes, beliefs, ideals and overt behavior reflects the influences on him of home experiences. Researchers typically separate elements of the home environment into two major categories; social and physical (Casy, Bradley, Nelson & Whaley, 1988; Wachs, 1989). According to Scott, “the

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most important function of modern family life is psychological in nature.” In families situations are provided setting the stimulation and guidance which determine, very largely, whether the child shall develop into a well-adjusted personality and socially useful individual. Family environment plays a significant role in the personality development and emotional intelligence of children. As the family environment influences personality, it also influences the emotional intelligence of the children similarly There are many psychological needs of the infant which must be met if he is to develop as an emotionally mature and socially well adjusted individual. Just as nourishing food and appropriate hygienic conditions are essential to satisfactory physical health and development; healthy psychological experiences are imperative to adequate personality development. Family is the first place where child’s physiological and psychological needs are looked after. Family affects every area of a child’s life. As a social unit with genetic, emotional, and legal dimensions, the family can foster the child’s growth development, health and well-being. Family environment is the most important institution for the existence and continuance of human life and the development of personality traits. Families provide social and emotional supports that help family members cope with crises. Home provides the basic environment for building the personality of the individual with its warm interpersonal relationship contributing to their feeling of security and belongingness.

Emotional intelligence is the efficiency of a person to deal with emotions effectively (Bharadwaj & Sharma, 1995). It helps the individual to perceive, understand regulate and harness emotions adaptively in interpersonal relationships (Fitness, 2001). While parents’ interaction with child and their form of attachment affect the emotional intelligence of child, home environment can be seen as a natural environment for the constitution of emotions and emotional attachments (Raikes, & Thompson, 2006). According to the study by Chen et al., (2005) parents with supportive attitude arrange home environment in such a way that it enhances emotional sufficiency of children. Mayer and Salovey (1995) have defined the emotional intelligence as “perceiving emotions, using emotions in order to support ideas, understanding emotions and emotional information, adjusting emotions for emotional and mental development”. Recently two conceptions of emotional intelligence (trait emotional intelligence and ability EI) have been indicated. Trait EI (or trait emotional self-efficacy) concerns emotion related dispositions and self-perceptions measured via self-report, whereas ability EI (or cognitive emotional ability) concerns emotion-related cognitive abilities measured via performance based tests (Petrides et all, 2007). Family is the first environment where child feels, observes and learns the emotional relationships (Warhol, 1998). Several factors affect the development of emotional intelligence, Family environment is especially the most important one among these (Cole, Martin, & Denis, 2004; Parke, 1994; Walden & Smith, 1997). According to Morris et al.
(2007) family environment affects children's emotional intelligence in three aspects. Firstly children learn emotions by observing the people around them. Secondly their experiences and behaviours related to parent’s emotions ensure children to become appropriate to society’s expectations. Thirdly factors reflecting the emotional status of family such as the quality of emotional attachment between the child and the parents, attitude of parents, emotional and social openness, and marital relationship have impacts on emotional intelligence Kaur et al. (2005) studied the relationship between strategic emotional intelligence and family climate of Punjabi adolescents. Significant relationship was found between high performers for strategic EI and family climate. Ozabaci (2006) conducted a study to examine the relationship between EQ and family environment. The results of the study indicate that there was a relationship between EQ and family cooperation.

“Personality is the dynamic organization within the individual of those psychophysical systems that determine his characteristic behaviour and thought” Allport (1961). Personality is the sum of biologically based and learnt behaviour which form the person’s unique responses to environmental stimuli. Carver & Scheier (2000) suggest that the word personality conveys a sense of consistency, internal causality, and personal distinctiveness. They defined personality as “Personality is a dynamic organization, inside the person of psychophysical systems that create a person’s characteristic patterns of behaviour, thought and feeling.”

Personality is also a cardinal factor which is responsible for the development of high emotional intelligence among the children. Researches show that there is significant difference in the emotional intelligence of extrovert and introvert. Emotional stability is more in extrovert than introvert (H. S & Betsur, 2010). The emotional atmosphere of the family, the way in which parents train their children and the opportunities and demands family life presents for normal development are present from early life, continue their influence in adolescence and shape the future course of adolescents’ lives. The purpose is to modify the behavior of the child and to shape his personality in a desirable way in an effective way so that our children can have a sound personality NICHD Early Child Care Research Network, 1998) studied more than one thousand children of United States from ten different cities who were raised at home and some attended daycare centers for varied amounts of time. The main result was that the family had the most important influence on the three-year-old child’s personality and character. Ribble (1943) revealed that physical warmth and affection, intelligently expressed by the mother is essential to satisfactory personality adjustment of the child. Parish, Dostal & Parish (1981) stated that the environment of the home in which a child is reared can advance or hinder wholesome personality adjustment Melvill (1977) thought that the type of family in which children are raised will determine, to a large extent, the number and types of social relationships that they will experience.
These relationships, in turn, will affect both personality development and social behavior. Nakao et al., (2000) studied the effects of family environment on personality traits. They found out that introverted children with high level of cognitive intelligence are influenced more by the family environment compared to extroverted children with low intelligence.

Jacob et al. (2010) examined a study related to personality and environmental concern. Structural equation modeling revealed that greater environment concern was related to higher levels of the Big Five personality traits of agreeableness and openness. Both agreeableness and openness were related to the higher-order personal value of self-transcendence, reflecting an expanded sense of self and a greater concern for others, the effect of neuroticism, with more neurotic individuals demonstrating significantly higher level of environmental concern. Other finding was that conscientiousness had a small but significant positive relationship with environment concern.

Corrine et al. (2007) conducted a study on childhood experiences of physical punishment as related to perception of family environment during childhood and affective and personality outcomes of college students. Result suggest that experiencing physical discipline as a child may be related to one’s family environment, personality and psychological well being in young adulthood.

Susan et al. (1990) investigated the association between family environment characteristics and the psychological characteristics of bulimia nervosa. Result showed that a restrictive and conflicting family environment high in parental control was associated with neuroticism and introversion. A second correlation showed an association between a stimulating, achievements oriented family environment and extroversion. Stott (1939) studied the relationship between personality adjustment and family situations of children from varying environments. He found a marked tendency for those from sociable homes, to be well-adjusted personality and socially successful.

Conclusively, No other factor influences children as deeply as their families. As a social unit with genetic, emotional and legal dimensions, the family can foster the child’s growth, development, health and well-being. The family can provide the child with affection, a sense of belonging, and validation, every area of a child’s life is affected by the family and its environment. Personality is assumed on the basis of individuality, consistency and changeable characteristics of the behaviour. Family environment plays a significant role in the personality development of children. Developmental psychologists have been interested in knowing how family environment influences the development of different competencies among children. Keeping in view the above indication present study has been incorporated to explore the influence of family environment on personality and emotional intelligence.
Objectives

Main objectives of the study are:
1. To examine the influence of family environment on personality.
2. To examine the influence of family environment on emotional intelligence.

METHOD

Sample

A sample of 200 students was randomly drawn from different colleges of Kurukshetra, district of Haryana. The age of the participants ranged from 17 to 21 years with the mean age of 19 years.

Measures

Family Environment Scale: The family environment scale was developed by Moos and Moos (1981). The FES is composed of 10 subscales that measure the actual, preferred and expected social environment of families. These 10 subscales assess three underlying sets of dimensions: relationships, personal growth and system and maintenance dimensions. The relationships and system maintenance primarily reflect internal family functioning, whereas the personal growth dimensions primarily reflect the linkages between the family and the larger social context.

The relationship dimensions of the scales are measured by the Cohesion, expressiveness and conflict subscales. The personal growth dimensions are measured by the independence, achievement orientation, intellectual-cultural, active-recreational orientation and moral religious emphasis subscales. The system maintenance dimensions are measured by the organization and control subscales.

Mind Garden has provided a scoring key. To determine a person’s raw scores, number of responses given in the keyed declaim as identified on the scoring key for each subscale are counted and the total of each sub scale is entered in Raw Score box. Studies have found the scale to be reliable and valid measure. The split half reliabilities of subscales found to be ranging from 0.53 to 0.84. Construct validities have also been found to be satisfactory ranging from 0.67 to 0.85.

Multidimensional Measure of Emotional Intelligence (MMEI) (Darolia 2003): The MMEI is based on Goleman’s (1995) model of emotional intelligence and taps five broad dimensions – self-awareness, managing emotions, motivating oneself, empathy, and handling relationships. The measure comprises of 80 items, 16 items for each dimension. Each item is answered on a five-point scale, viz. very true, mostly true, somewhat true, mostly false, and very false. The test can conveniently be administered as an individual test, as self-administered, or as a group test. The administration of MMEI takes about 25 to 35 minutes. The scale has been standardized for general adult population. The obtained scores, on
individual dimensions as well as on full scale, can be interpreted in terms of percentile positions. The percentile norms for two age categories, 16 to 25 years and 26 to 45 years are given. The reliability indices for the MMEI are fairly high. The coefficient alpha ranged between .76 and .81 (N=415). The test-retest coefficients ranged between .79 and .84. With a time gap of 40 days (N=415). The construct validities of the five scales range from .68 to .76.

**Neo-five Factor Inventory (Costa, McCrae 1992):** NEO-Five Factor Inventory (NEO-FFI) is a 60 item version of the NEO-PI-R that is scored for the five domains only. The full NEO-PI-R form-S provides comprehensive study of Big Five factors - Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness. It comprises of 12 items for each dimension, making a total of 60 items. Each item is responded by the subject on a five point scale represented by labels of strongly disagree, disagree, neutral, agree, strongly agree. There are some negative items, scoring of which was done in reversed manner. The alpha coefficients for the individual facet scale ranged from (.56) to (.81). The full scale coefficient alphas ranged from (.86) to (.95) (Costa et al., 1991). The test retest reliability (with three months interval) of NEO FFI scale were obtained from a college sample, found to be (.79), (.79), (.80), (.75) and (.83) for N,E,O,A and C scales respectively.

**RESULT AND DISCUSSION**

SPSS software was used for statistical analysis. Correlation analysis was used for analysis of the data. The correlation analysis reveals that cohesion, a dimension of family environment correlated positively and significantly with self awareness, managing emotions, motivating oneself and handling relationships of emotional intelligence and inversely correlated with neuroticism and positively with extroversion. This result indicates that a family environment promoting commitment, help and support for each other, enhances observation and recognition of feeling, appropriate handling of fear, anxieties and sadness, proper channeling of emotions, emotional self control and proper management of emotions among family members.

Such individuals do not experience negative effects like fear, sadness and are sociable, assertive, cheerful, energetic and optimistic and have interest in enterprising occupations.

Expressiveness demonstrated positive and significant correlations with self awareness, motivating oneself and handling relationships. This indicates that family environment promoting open and direct expression of feelings, enhances proper observation and recognition of feelings, and appropriate handling of emotions like sadness, anger and anxieties among family members. These individuals can manage emotions competently and are socially skilled.
### Correlation between family environment, emotional intelligence and personality (N=200)

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>ME</th>
<th>MO</th>
<th>EM</th>
<th>HR</th>
<th>NEUROTICISM</th>
<th>EXTROVERSION</th>
<th>OPENNESS</th>
<th>AGREABLENESS</th>
<th>CONSCIENTIOUSNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COHEX</td>
<td>.291(**)</td>
<td>.152(*)</td>
<td>.267(**)</td>
<td>.075</td>
<td>.311(**)</td>
<td>-.232(**)</td>
<td>.165(*)</td>
<td>.092</td>
<td>.119</td>
<td>.123</td>
</tr>
<tr>
<td>CON</td>
<td>.241(**)</td>
<td>.113</td>
<td>.234(**)</td>
<td>.077</td>
<td>.227(**)</td>
<td>-.087</td>
<td>.064</td>
<td>.043</td>
<td>-.048</td>
<td>-.028</td>
</tr>
<tr>
<td>IND</td>
<td>-.294(**)</td>
<td>-.229(**)</td>
<td>-.137</td>
<td>-.212(**)</td>
<td>-.331(**)</td>
<td>-.255(**)</td>
<td>-.103</td>
<td>-.006</td>
<td>-.123</td>
<td>.018</td>
</tr>
<tr>
<td>AO</td>
<td>.138</td>
<td>.082</td>
<td>.104</td>
<td>.214(**)</td>
<td>.216(**)</td>
<td>-.227(**)</td>
<td>.173(*)</td>
<td>.132</td>
<td>.038</td>
<td>.094</td>
</tr>
<tr>
<td>ICO</td>
<td>.170(*)</td>
<td>.048</td>
<td>.166(*)</td>
<td>.094</td>
<td>.148(*)</td>
<td>-.060</td>
<td>.214(*)</td>
<td>.207(*)</td>
<td>.053</td>
<td>.097</td>
</tr>
<tr>
<td>ARO</td>
<td>.046</td>
<td>.253(**)</td>
<td>.137</td>
<td>.146(*)</td>
<td>.172(*)</td>
<td>-.024</td>
<td>.162(*)</td>
<td>.192(*)</td>
<td>.052</td>
<td>.244(**)</td>
</tr>
<tr>
<td>MRE</td>
<td>.132</td>
<td>.234(**)</td>
<td>.141(*)</td>
<td>.098</td>
<td>.232(*)</td>
<td>-.204(**)</td>
<td>.156(*)</td>
<td>.164(*)</td>
<td>.069</td>
<td>.228(**)</td>
</tr>
<tr>
<td>ORG</td>
<td>.133</td>
<td>-.062</td>
<td>.195(**)</td>
<td>.142(*)</td>
<td>.087</td>
<td>-.113</td>
<td>.133</td>
<td>.132</td>
<td>.052</td>
<td>.117</td>
</tr>
<tr>
<td>CTL</td>
<td>.033</td>
<td>-.012</td>
<td>.280(**)</td>
<td>.084</td>
<td>.117</td>
<td>-.128</td>
<td>.096</td>
<td>.070</td>
<td>.090</td>
<td>.216(**)</td>
</tr>
<tr>
<td></td>
<td>-.038</td>
<td>.071</td>
<td>.038</td>
<td>-.133</td>
<td>.056</td>
<td>-.061</td>
<td>.201(**)</td>
<td>.009</td>
<td>-.088</td>
<td>.181(*)</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.01 level (2-tailed).  
**Correlation is significant at the 0.05 level (2-tailed).
Conflict demonstrated negative correlations with self awareness, managing emotions, empathy and handling relationship dimensions of emotional intelligence and a positive relationship with neuroticism dimension of personality, indicating that conflicting family environment where members openly express aggression; they do not exhibit emotional intelligence. They are not able to recognize and handle their fears, anxieties and sadness properly. They are impulsive and emotionally uncontrolled and do not possess social skills and competence. These individuals have a tendency to experience negative effects like guilt, embarrassment and disgust in their personality characteristics.

Independence correlated positively with empathy, handling relationships and extraversion but inversely with neuroticism. This result indicates that family environment where members are assertive and self sufficient in making their own decisions, such individuals are sympathetic, sensitive towards other’s feelings, can manage emotions, are also socially skilled and competent in their emotional intelligence. These individuals are social, assertive, energetic, and optimistic and like excitement and stimulation while not experiencing negative effects like fear, anger and sadness in their personality traits.

Achievement orientation demonstrated positive correlations with self awareness, motivating oneself, handling relationships, extraversion and openness to experience, indicating that achievement oriented and competitive family environment promotes self awareness, emotional self control, social skills and competence in the management of emotions in their family members. Individuals belonging to such family environment are social, active, cheerful, optimistic, aesthetic imaginative, intellectually curious and make judgments independently.

Intelligence cultural orientation demonstrated significant and positive correlations with managing emotions, empathy, and handling relationships of emotional intelligence and extraversion, Openness to experience and conscientiousness of personality. It clearly indicates that family environment promoting interest in political, social, intellectual and cultural activities also promotes appropriate handling of emotions, sensitivity, management of emotions and social competence. Such individuals exhibit assertion, sociability, excitement and stimulation. These individuals also display active imagination, intellectual curiosity, independence in judgment, self control, impulse control and active and organized planning in their personality dispositions.

Active recreational orientation indicated positive correlations with managing emotions, motivating oneself and handling relationships of emotional intelligence and extraversion, openness to experience, conscientiousness and an inverse relationship with neuroticism of personality. This result indicates that family environment promoting participation in social and recreational activities also promotes appropriate handling of emotions, emotional self control, delay in gratification of impulses, and social competence in emotional regulation. Such
individuals also display assertion, energy, optimism, active imagination intellectual curiosity, independent judgement, self and impulse control and active and organized planning and do not possess the general tendency to experience negative emotions like fear, anger and disgust in their personality traits.

Moral religious emphasis demonstrated positive correlations with motivating oneself and empathy, indicating that family environment emphasizing ethical and religious issues and values promote channeling of emotions, emotional self control, delayed gratification of impulses, sensitivity towards others feelings and appreciating difference of opinion among their members. It did not demonstrate any significant correlations with personality.

Organization displayed positive relationship with motivating oneself and conscientiousness, indicating that family environment having clear organization and structure in planning family activities and responsibilities, promotes proper channeling of emotions, emotional self control, active planning and organized impulse control among their members.

Control demonstrated positive correlation with extraversion and conscientiousness, indicating that family environment where rules and procedures are set to run family life, enhances sociability, assertion, optimism, interest in enterprising occupations, self control and active planning and organization in impulse control in personality. None of the measures of emotional intelligence demonstrated any significant correlation with control dimension of family environment.

These results are supported by following studies: Devi et. al. (2004) examined the relationship between adolescent’s perception about family-environment and emotional intelligence. Results of the study revealed that 4 out of 8 dimensions of family environment, cohesion, expressiveness, acceptance and caring and active recreational orientation were positively and significantly related to total emotional intelligence (EI) of adolescents. Chaturvedi et al. (2010) explored the relationship between emotional intelligence (EI) and dimensions of family environment. The finding revealed that CO, EX, Con, IND, ICO, ARO, MRE and ORG were significantly correlated with various domains as well as overall EI. It is concluded that family environment plays a significant role in the development of emotional intelligence.

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ANALYSIS OF EXECUTIVE FUNCTIONS IN CHILDREN WITH LEARNING DISORDERS

Nice Mary Francis *

ABSTRACT

This article examines executive functioning in children with specific developmental disorders of scholastic skills as defined by ICD-10. Eighty (40 LD Vs non-LD) second to fourth graders with a minimum IQ of 80 are compared. An extensive test battery assessed working memory, sustained attention, phonemic fluency and cognitive flexibility which are the four subcomponents of executive functioning described by Denckla (1996). Children with learning disability show deficits in visual-spatial memory; visual memory; cognitive flexibility, and sustained attention. Linear discriminant analysis using executive variables correctly classified 95% of the participants in both groups and these variables were: Verbal memory and sustained attention. It was concluded that verbal working memory is the most important neuropsychological correlates of learning disability.

Keywords: Learning disability, Developmental disorders and Neuropsychological correlates

The term ‘learning disability’ has been applied in those situations, where a child has significantly greater difficulty in learning than the majority of his/her age. “Learning disability is a generic term that refers to a heterogenous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a Learning Disability may occur concomitantly with other handicapping conditions, or environmental influences, it is not the direct result of those conditions or influence” (IDEA 1981). According to Lerner (1993), prevalence estimates for LD have varied from as low as 1% to as high as 30% of the school–age population. A prevalence rate of 6% has also been reported in

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**Neuropsychological Parameters-Executive Functions**

Neuropsychology is the study of brain behaviour relationships. It is based on the idea that the brain, working as an interdependent, systemic network, controls and is all inclusively responsible for behavior. In a recent definition by Roberts and Pennington (1996), executive functions were described as “a collection of related but somewhat distinct abilities such as planning, set maintenance, impulse control, working memory and attentional control”. This indicates that “executive functions” refers to a system of multifactorial functions. Executive functions have been operationally defined as those higher order control processes that regulate cognition during tasks such as writing, reading, etc. Denckla (1996) proposed a conceptual model of executive functioning comprising of four key domains of functions, viz., initiating behaviour, sustaining behaviour, inhibiting/stopping behaviour and set shifting. Given this model, the following components of executive functions were selected: initiation, set shifting, sustaining and inhibition/stopping. To measure these executive function domains, three tasks were selected across the four target domains. They are working memory tasks, tasks related to attention sustaining and test of phonemic fluency.

**Objective**

The objective of the study was to assess the differences between learning-disabled children and matched non-disabled children in terms of certain selected neuropsychological executive variables (sustained attention, verbal fluency, cognitive flexibility, working memory).

**The Hypotheses**

Learning disabled children and control group children would differ on the selected variables of executive functions, viz., (1) Sustained Attention (2) Verbal Fluency (3) Cognitive Flexibility (4) Working Memory.

**METHOD**

**Sample**

The sample for the study consisted of two groups, viz., learning disabled group (LD group), and the control group (non-LD group). The children were diagnosed as having learning disabilities (reading, writing, arithmetic, mixed) according to the ICD –10(WHO,1992) classification and the clinical diagnosis was made by the clinical psychologist/psychiatrist working in the mental health centre from where the learning disabled sample was selected. Their age group is between 9 to 15 years and they were attending regular school where the syllabus was State, CBSE or, ICSE. A sample of 40 LD children was selected on the basis of the above criteria who were attending the learning disability clinic in the Mental Health Centre.
Health Centers located in Ernakulam town. Of the total of 40, 28 were males and 12 were females. A sample of 40 normal children who are matched with the study (LD) group in respect to age, class, sex, birth order, religion, and medium of instruction were selected to serve as a control group in the study. These students were selected from the 3 schools situated in Ernakulam district, Kerala.

Tools
The following psychological measuring devices were used in the present study.

1) **Colour Cancellation Test (Kapur, 1974):** Colour Cancellation Test is a measure of sustained attention. Subjects are required to cancel only the red and yellow circles as far as possible. Time taken to complete the test is recorded and errors of omissions and commissions are noted.

2) **FAS Phonemic Fluency Test (Lezak, 1995):** FAS phonemic Fluency Test is a measure of verbal fluency. This test evaluates spontaneous production of words beginning with a given letter, within a limited time.

3) **Colour Trails Test -Trail B (D’Elia et al., 1996):** Colour Trails Test – Trail B is a measure of mental or conceptual tracking and cognitive flexibility. The subject is required to connect the numbers serially from 1 to 25 alternating between pink and yellow circles and disregarding the number in circles of the alternate colour. Time taken for trail B is noted and errors are also recorded.

4) **N Back Task (Smith & Jonides, 1995):** N Back Task (Verbal) is a measure of verbal working memory. It consists of a ‘1 back task and a 2 back task’. The subject is required to respond in terms of ‘Yes’ or ‘NO’ for phonetically similar and dissimilar sounds respectively. The subject has to say ‘yes’ for each consecutively repeated sound and ‘No’ for the other sounds.

5) **Visuospatial Working Memory Span Task (Milner, 1971):** This test is a measure of visuospatial working memory span. The subject is required to repeat the sequence of four taps tapped by the examiner. Five trials of forward and five trails of reverse sequences are given. Number of correct sequences tapped by the subject for both the forward and reverse conditions together comprises the total score for this test.

**RESULT AND DISCUSSION**
To test the tenability of the various hypotheses formulated for the study, the data were subjected to inferential statistical procedures.
Table 1: Mean and SD of the scores on Colour Cancellation Test obtained by the two groups and significance of differences between the means

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour Cancellation Test Time score</td>
<td>Learning Disabled</td>
<td>86.40</td>
<td>25.117</td>
<td>5.100</td>
<td>.000</td>
</tr>
<tr>
<td>Colour Cancellation Test Error score</td>
<td>Learning Disabled</td>
<td>1.25</td>
<td>1.428</td>
<td>1.067</td>
<td>.289</td>
</tr>
<tr>
<td>Test Error score</td>
<td>Normal</td>
<td>95</td>
<td>1.061</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sustained Attention**

As indicated in Table 1 mean score shows that the performance of the LD group was lower than that of the control group in both the time taken to complete the task and the number of errors made in the task.

In the colour cancellation task attention must be maintained over long periods of time, in order to detect a singular stimulus that occurs randomly and infrequently over time. Douglas (1974) had suggested earlier that attention problem in LD children stems from two problems, viz., (1) the inability to sustain attention and (2) the inability to control impulses.

However present results show that the LD students could not sustain attention (significantly higher mean score of LD group of time score) while there was no difference in the error scores of the two groups.

**Verbal Fluency**

From the Table 2, it is apparent that the number of mean words produced by the control group was 28.42, while the mean score of the LD group was 20.15. The performance of the LD group on the verbal fluency task was significantly as lower compared to the control group and needed further explanations.

Table 2: Mean and SD of the scores on Phonemic Fluency Test obtained by the two groups and significance of difference between the means

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Fluency</td>
<td>Learning Disabled</td>
<td>20.15</td>
<td>7.618</td>
<td>4.692</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>28.42</td>
<td>8.149</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The detrimental performance in phonemic fluency could be explained in the context of “phonological deficit hypothesis”, which is the most widely accepted hypothesis with respect to the cognitive origin of dyslexia(Stanovich,1998). According to this hypothesis, reading disabilities arise from basic deficiencies in the ability to generate and maintain phonological representations in working memory, but not from deficiencies in other cognitive domains. The results of

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this study support the above hypothesis, that when the LD group was compared to a matched-group performance of significant deficiencies were observed in phonemic fluency domain of phonological process.

**Cognitive Flexibility**

Examination of the mean scores reveals that the LD group took longer time (M=160.38; SD=58.297) to complete the task as compared to the control group (M=98.42; SD=28.072). This indicates that the LD group is lower in cognitive flexibility compared to the control group.

**Table 3: Test –Trail obtained by the two groups and significance of difference between the means**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour Trails</td>
<td>Learning Disabled</td>
<td>160.38</td>
<td>58.297</td>
<td>6.055</td>
<td>.000</td>
</tr>
<tr>
<td>Test-Trail B Time</td>
<td>Normal</td>
<td>98.42</td>
<td>28.072</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour Trails</td>
<td>Learning Disabled</td>
<td>1.30</td>
<td>1.159</td>
<td>1.640</td>
<td>.105(p&gt;.05)</td>
</tr>
<tr>
<td>Test-Trail B Error</td>
<td>Normal</td>
<td>.88</td>
<td>1.159</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In their study Krishna et al. (1982), found that 56% of children with learning disability showed some deficits in the Part B of the Trail Making Test. The results of the present study is consistent with that of Krishna et al. Significantly more time was taken by the LD group in completing the task thereby indicating that there is a general slowing of mental processing and mental tracking among the LD group. However here again no difference was observed in the error scores.

**Working Memory**

Working Memory was measured in both verbal and visuospatial modalities. The Nback tests (verbal 1back and verbal 2back) were used to assess verbal working memory while the tapping tests (forward and backward) were used to assess the visuospatial working memory. The mean scores obtained by the learning disabled and the control group on each of these tests were compared using t-tests and the results are presented in table 4 and 5.

**Verbal Working Memory:** The t-test was carried out to compare the LD group and control group in terms of their scores, on the task. The t-value presented in the table 3.1 shows that there is significant difference between the two groups in both the 1 N back (t value =-3.042; P < .003) and the 2 N back (t– value = 11.251; P < .001). Examination of the mean scores presented in the same table indicates that children with learning disabilities did perform lower than the controls on both these tasks.
Table 4: Mean and SD of the scores on Verbal working memory test obtained by the different subgroups and the t-values.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBACK 1Score</td>
<td>Learning Disabled</td>
<td>5.75</td>
<td>1.256</td>
<td>3.042</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>6.68</td>
<td>1.457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NBACK 2 Score</td>
<td>Learning Disabled</td>
<td>2.58</td>
<td>1.318</td>
<td>11.251</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>5.80</td>
<td>1.244</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results are consistent with the findings of Jeffries and Everett (2003) that children with LD especially those with reading disabilities have impairments on verbal working memory. With regard to working memory, which is one of the most extensively studied aspect of executive functioning, a number of studies have demonstrated that verbal working memory in children with dyslexia is disturbed in comparison to that of the non-dyslexic children (Baddeley, 1986; Jeffries & Everatt, 2004). Verbal working memory has three important components i.e., storage, manipulation of information and rehearsal. N back task is based on the premise that two variables can affect verbal working memory i.e., word length and phonemic similarity. Jorm (1983) has suggested that children with reading disability are not able to rehearse the verbal material sub vocally as effectively as controls. The present study result is also consistent with the above finding that the phonological loop might be impaired due to a malfunctioning sub vocal rehearsal mechanism in LD children. If the words are more in number the rehearsal mechanism will be in danger in learning disability group. The present result illustrates the lower performance of LD children in N-back task and that may be due to word similarity effect or due to the problems in subvocal rehearsal system.

**Visuo-spatial working memory:** From the table 5 it is clear that, in all the three measures of this task the performance of the study group children was lower as compared to the control group.

Table 5: Mean and SD of the scores on Visuo-spatial working memory test obtained by the two groups and significance of differences between the means.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSWM Forward</td>
<td>Learning Disabled</td>
<td>4.12</td>
<td>1.067</td>
<td>3.829</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>4.82</td>
<td>.446</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSWM Backward</td>
<td>Learning Disabled</td>
<td>2.62</td>
<td>1.005</td>
<td>5.415</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>3.78</td>
<td>.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSWM Total</td>
<td>Learning Disabled</td>
<td>6.75</td>
<td>1.736</td>
<td>5.721</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>8.60</td>
<td>1.081</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The hypothesis stating that children with LD and controls would differ on the visual-spatial working memory tasks was supported. Their performance was differentially lower as compared to controls when engaged in both backward and
forward sequence indicating deficits in both active as well as assure visuo-spatial components of working memory. These results receive support from those of Cantor, et.al (1991) who found that young adolescents with non-verbal LD and low visuo-spatial intelligence presented marked deficits in a series of visuo-spatial working memory tasks. To explain these deficits they proposed a model of visuo-spatial working memory that distinguished between passive and active visuo-spatial components. Visuo-spatial working memory deficits in children with low visuo-spatial intelligence seem to involve not only the passive, but also the active components of the system.

**Discriminant Function based on Executive Function Variables:**
Discriminant function analysis was conducted using the executive function variables included in the study in order to find out the most important parameters which could be used to discriminate between the LD group and non-LD groups. The results of the analysis showed that a combination of two tests could differentiate between the two groups with 95% accuracy. These variables were: Verbal 2 Back Tests and Colour Trails ‘B’ error score.

**Theoretical Implications:** The finding from multivariate analysis is of very high practical importance, because of the fact that it points towards the possibility of identifying some key neuropsychological functions which can be used to discriminate between the learning disabled and the control groups. As per the results of the present study it may conclude that cognitive flexibility and active verbal working memory the most important neuropsychological correlates of learning disability.

**Practical Implications:** Deficits in the neuropsychological function of learning disabled children, especially in the components of memory, calls for remedial retraining strategies in the areas of weakness identified. Deployment of trained personnel (preferably those who have got special training in the identification and management of learning disability) at the primary school level may be helpful in the early identification of children at risk and to initiate remedial measures early enough.

**REFERENCES**
EMOTIONAL INSTABILITY, EMOTIONAL-REGRESSION AND SOCIAL MALADJUSTMENT OF ADOLESCENT GIRLS HAVING EXPERIENCED

Zeba Qamar

ABSTRACT
The study was aimed to study the impact of sexual abuse on emotional-unstability, emotional-regression and social maladjustment of adolescent girls. In order to achieve the objective of the study a total of 60 school going adolescent girls were selected. Out of 60 girls’ 30 girls were those who reported severely sexual abuse in their childhood and 30 were moderately sexually abused girls. Emotional maturity scale was administered to all the participants. In order to find out significance of difference between the two groups, t-test was used. The results of the study revealed that adolescents witnessing severe sexual abuse and adolescents witnessing moderate sexual abuse differed significantly on social maladjustment.

Keywords: Emotional-unstability, Emotional-regression and social maladjustment, Emotional maturity and Sexual abuse.

Child abuse is a state of emotional, physical, economic and sexual maltreatment meted out to a person below the age of eighteen and is a globally prevalent phenomenon. However, in India, as in many other countries, there has been no understanding of the extent, magnitude and trends of the problem. The growing complexities of life and the dramatic changes brought about by socio-economic transitions in India have played a major role in increasing the vulnerability of children to various and newer forms of abuse. According to WHO: “Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or

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power.” Child abuse is quite simple neglect by parents of their children. Maltreatment is also termed as child abuse. Child abuse may be sexual, physical or emotional in nature. Depending on various factors and situations, child abuse mars a child for life and may impede their progress and lifestyle.

According to USA Congress (1986): ‘Child Abuse and Neglect means the physical or mental injury, sexual abuse and exploitation, negligent treatment, or maltreatment of a child under the age of 18’.

The Child Abuse Prevention and Treatment Act defines child abuse and neglect as: “at a minimum, any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm.” David Gill (1968) has defined physical abuse as “any non-accident physical attack or physical injury, inflicted upon the child by the child’s caretakers.”

According to the report published in 2005 on ‘Trafficking in Women and Children in India’, 44,476 children were reported missing in India, out of which 11,008 children continued to remain untraced. “Child abuse” can be defined as causing or permitting any harmful or offensive contact on a child’s body; and, any communication or transaction of any kind which humiliates, shames, or frightens the child. Some child development experts go a bit further, and define child abuse as any act or omission, which fails to nurture or in the upbringing of the children. According to Oates (1996), sexual abuse of children means involvement of dependent, developmentally immature children and adolescents in sexual activities, which they do not fully comprehend and to which they are unable to give informed consent. Sexual abuse includes touching, fondling, and penetration.

Sexual abuse has a significant impact on the all-round development of the children. The effect of sexual abuse on children are: guilt, shame, fear, grief, anger, helpless, depression, sleep disturbance, seductive behavior, eating disorder, and allergies etc.

According to the National Committee for the Prevention of Child Abuse (NCPCA), sexually abuse constitute about 11 percent of cases reported, in 1995 almost 350,000 cases, currently, approximately one-third of reports are substantiated after investigations of Child Protection Services (CPS) i.e., about 110,000 of sexually abuse annually. Although the number of cases from the CPS report is considerable study of 1000 parents conducted by the Gallop Poll in 1995 yielded a projection 10 times larger, of one million children during the previous year Widom (1999) observe that 37.5 percent victims of childhood sexual abuse, 32.7 percent of childhood physical abuse and 30.6 percent of childhood neglect meet DSM-III R criteria for lifetime PTSD. Silber and Stock (1999) administered Appreceptive Personality Test and Draw-A-Person Questionnaire among 163 females (16-50 years) who were sexually abused in childhood and 163 (15-52 years) controls. Authors found abused more depressed, passive, hostile and less trusting than controls.
1. Rape 2532 2949 3542 4026 13.7
2. Kidnapping & Abduction 2322 2571 3196 3518 10.1
3. Procurement of Minor Girls 124 171 205 145 29.3
4. Selling of Girls for Prostitution 5 36 19 50 163.2
5. Buying of Girls for Prostitution 9 24 21 28 33.3
6. Abetment of Suicide 24 25 33 43 30.3
7. Exposure and Abandonment 644 722 715 933 30.5
8. Infanticide 115 103 102 108 5.9
9. Feticide 84 57 86 86 0
10. Child Marriage Restraint Act 113 63 93 122 31.2
TOTAL 5972 11633 14423 14975 3.8

Keeping in view of the above discussion it was considered to explore emotional-unstability, emotional-regression and social-maladjustment of those girls who have experienced sexual abuse during their childhood.

METHOD

Sample
The present investigation was conducted on a sample of 60 adolescent girls. The sample is divided into two groups 30 severely abused adolescent girls and 30 moderately abused girls. All the subjects were drawn from Delhi.

Tools
Emotional maturity scale (EMS) was used to measure the emotional maturity. Emotional maturity scale has a total of 48 items. Only three factors, namely emotional-unstability, emotional-regression and social-maladjustment of emotional maturity scale were measured.

RESULT AND DISCUSSION
It may be recalled that study was designed to investigate difference between severely sexually abused and moderately abused adolescent girls. In order to find the significance of difference between severely sexually abused and moderately abused subjects on emotional maturity scale, t-test was used.

Table-1: Mean, and t-value of moderately abused and severely abused for dimensions of emotional maturity.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Moderately Abused</th>
<th>Severely Abused</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Instability</td>
<td>24.86</td>
<td>26.77</td>
<td>1.23</td>
</tr>
<tr>
<td>Emotional Regression</td>
<td>25.9</td>
<td>24.13</td>
<td>.79</td>
</tr>
<tr>
<td>Social Maladjustment</td>
<td>23.2</td>
<td>26.4</td>
<td>2.3**</td>
</tr>
</tbody>
</table>

**p>.05

Vol. 10, No. 1, September, 2015
As evident from table 1 that the mean score of moderately abused subjects on emotional Unstability dimension of Emotional maturity scale is 24.8 and the mean score of severely abused subjects on Emotional Unstability dimension is 26.77. The difference between the two means is nonsignificant at 0.05 level of confidence (t=1.23, p>0.05).

The mean score of moderately abused subjects on Emotional Regression dimension of Emotional Maturity scale is 25.9 and the mean score of severely abused subjects on the same trait is 24.13. The difference between the two means is not significant beyond 0.05 level of confidence (t=.79, P> 0.05).

The mean score of moderately abused subjects on Social Maladjustment dimension of Emotional Maturity scale is 23.2 and the mean score of severely abused subjects on Social Maladjustment trait is 26.4. The difference between the two means is significant beyond 0.05 level of confidence (t=2.3, P<0.05).

The findings of the study revealed significant difference between social-maladjustment dimension of emotional maturity of adolescents witnessing severe sexual abuse and moderate abuse. The mean scores obtained by both groups of subjects indicate that the social maladjustment of both groups of adolescents is low. Dillon (1999) conducted a case study with 19 year old girl who was sexually abused between ages 6 and 12 and got pregnant at the age of 16. She was tested on “Draw- A- Person Questionnaire”, “Karp Objective Word Assessment Test” and the “Appreceptive Personality Test”. The researchers concluded that the girl’s responses reflected many problems, the most consistent being reflection of emotional immaturity and distorted use of sex. So the research is not similar to the studies.

We see that social-maladjustment of sexually abused girls is affected by the extent of the sexually abuse they have experienced. The experience of severe sexual abuse in the childhood stage caused social-maladjustment in the adolescent stage of girls. Sexually abused adolescent girl shows lack of social adaptability, seclusion, liar and shirker in their behaviour.

REFERENCES


AN INNOVATIVE BRIEF BEHAVIOUR TECHNOLOGY FOR EFFECTIVE MANAGEMENT OF GAYS, LESBIANS AND QUEERS

Prof. Dr. Vedagiri Ganesan

ABSTRACT

This paper describes a Brief Behaviour Technology (BBT) for the effective management of individuals, who need help for their 'Survival' as well as for their 'Option'. The BBT describes a well defined procedure that can effectively achieve within a short period the 'Reduction of the Rate of Breathing' that can be instrumental in redefining the Sexual Orientation of the Client. The Temporal Efficacy and the Guaranteed Cognitive and Behavioural Changes are assured. It is clear that only India can offer this Program due to Socio-Political and Professional reasons. Ethical considerations for Labeling and offering Professional Services are discussed. The possibility of the Extinction of the Human Species is indicated.

Key Words: Gays, Lesbians, Queers, Reorientation and Brief Behaviour Technology

Some Psychologists assume that Gays, Lesbians and Queers are caused by genetic factors. Hence they are considered to be not amenable for treatment.

But on the contrary, when in the above cases, when ‘Behaviour-Change’ is made possible it implies that the above assumption is a myth.

Diagnostic Statistical Manual (DSM) I, II, and III have classified Homosexuals and Lesbians as Pathological, whereas DSM IV and V, have dropped them.

But the US Defense Services still follow the DSM III. It is considered illegal to treat Homosexual and Lesbians and those, who treat will be prosecuted. One can only sympathize with the people, who wish to take help in US or elsewhere in the World.

* Prof. Dr. Vedagiri Ganesan, Ph. D., Hon. Director, Global Institute of Behaviour Technology, P. B. No. 7301, Bharathiar University, Coimbatore - 641 046, and The Ex. Professor & Head, Dept. of Psychology, Bharathiar University, Coimbatore, India – 641 046, Ph: +91 9443478684 professorvg@yahoo.com
In some other Cultures and Nations it is legally permitted. In certain other Cultures and Nations the above behaviours are severely punishable to the extent of life imprisonment or even death penalty.

Thirty-six countries including Afghanistan, Algeria, Bahrain, Bangladesh, Brunei, Djibouti, Egypt, Eritrea, Gambia, Guinea, Guinea Bissau, Indonesia, Kuwait, Lebanon, Libya, Maldives, Morocco, Oman, Qatar, Senegal, Sierra Leone, Sudan, Syria, Tanzania, Tunisia, Turkmenistan, and Uzbekistan with punishments including anything from a fine up to life imprisonment.

Ten of those countries out of the thirty-six impose the ‘Death Penalty’ for homosexuals. They are Iran, Mauritania, Nigeria, Pakistan, Saudi-Arabia, Somalia, Sudan, United Arab Emirates, Yemen and some states in Malaysia.

In eleven Countries, where same sex marriages are legal. They are Argentina, Belgium, Canada, Iceland, Mexico, Netherlands, Norway, Portugal, South Africa, Spain and Sweden.

India was among the 43 countries, who supported Russia’s attempt to prevent staff benefits from being extended to gay couples.

UN Secretary-General Ban Ki-moon said in July 2014 that the United Nations would recognize all same-sex marriages of its staff, allowing them to receive UN benefits.

Previously, staff members’ personal status was determined by the laws of their country of nationality. But the United Nations now recognises all same-sex couples married in a country, where it is legal, regardless of their nationality.

Russia wanted the 193-member General Assembly Fifth Committee, which deals with the UN budget, to overturn Ban’s decision and had been threatening to put the measure to a vote since December 2014.

But the motion was overturned after the UN General Assembly budget committee voted 80 to 43 against the proposal.

There were 37 abstentions and 33 countries did not vote.

India voted to deny benefits to Gay UN staffers, in favor of Russia’s proposal and the other countries, which joined the voting were Saudi Arabia, China, Iran, India, Egypt, Pakistan, and Syria.

The Supreme Court of India has established the Gays, Lesbians and Queers are punishable under the Indian Penal Coade.

Under the above circumstances, the following Brief Behaviour Technology has been developed.

**Actual Causes for such Behaviours**

The client at his or her very young age, when subjected to sexual abuse by an adult member of the opposite sex, develops a ‘Phobic Response’ to the members of the opposite sex.
When their sexual urge emerges in their adolescence, they emotionally and behaviourally lean towards the same sex members.

This same sex interest and behaviour gets strengthened through ‘Habit-Strength’.

**Brief Behaviour Technology for Weakening the above Habit-Strength**

The ‘Hetero-Sexual-Phobia’ as well as the ‘Same-Sexual-Mania’ can both be eradicated by the following Brief Behaviour Technology, which has the ‘Temporal Efficacy’ within a duration of ten days.

Arousals, either caused by Phobia or Mania alter the Breathing Rate. When the client is trained to significantly reduce the Breathing Rate, both the Phobia and Mania are extinguished.

The client is asked to keep counting continuously the Exhalations and Inhalations continuously for a period of one-minute duration. For example, the count is 32, it can be divided by 2, which will give a product of 16. And this 16 is the ‘Rate of Breathing’.

Ten trials are to be done in a session, with ‘one-minute-rest’ in between each trial.

The client is asked to deliberately and gradually to reduce their Breathing Rate, by prolonging the period of Exhalations and Inhalations.

As days progress, the client can reduce the Breathing Rate to just ‘1’.

At this stage, the client is exposed to ten photos of the same sex members in the increasing levels of nudity and arousal. The client is asked to bring down the Breathing Rate to just ‘1’, even while looking at each of the photos.

The above procedure is to be repeated with exposure to ten photos of the opposite sex members.

Again the same procedure is to be repeated with exposure to ten photos of the heterosexuals in copulation.

Thus the ‘Habit-Strength’ can be extinguished and the ‘Natural-Hetero-Sexual-Response’ can be established.

**Benefits of this Technique:**

1. The lives of lots of peoples with the above behaviours can be saved from social ostracism or punishment.
2. Their Families can accept them.
3. The Reproductive Cycle of these persons and families can be recovered.
4. Negative Population Growth of a Nation can be arrested.
5. Racial Continuity and Propagation can be preserved and prevented from extinction.
ENHANCING EMOTIONAL INTELLIGENCE AMONG INDUSTRIAL WORKERS WITH THE APPLICATION OF BEHAVIOR TECHNOLOGY

R. Santhanakrishnan,*

ABSTRACT

The present study attempts to enhance the Emotional Intelligence (EI) of Industrial Workers. Many of the Industrial Workers have psychosomatic problems due to the emotional problems related to Anger, Anxiety, Depression, Sex etc. Enhancement of Emotional Intelligence is highly required for the Management of the above Emotions.

Key Words: Interventions techniques, Behaviour technique and Employee counselling

Aims of the Present Study

1. To measure the Emotional Intelligence among the Industrial Workers.
3. To evaluate the efficiency of the Brief-Behaviour-Technologies in the overall enhancement of the Emotional Intelligence.

METHOD

Sample

A sample of 51 workers from a large automobile ancillary parts manufacturing industry in Coimbatore was considered for this study. In order to enhance Emotional Intelligence, Interventions Techniques of Behaviour Technology was administered on the workers for one hour per day for six weeks.

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Measures

Emotional Intelligence - Trait Emotional Intelligence Questionnaire

Behaviour Technologies Administered:

1. Anger Relaxation Technique (Ganesan, 1980)
2. Reduction of Breathing Rate (Ganesan, 1990a)
3. Ashwini Mudra Technique (Vethathiri Maharishi, 1972)
4. Simplified Kundalini Yoga (Vethathiri Maharishi 1972)
5. Maha Prana Dwani (Mahapragna, 1995)
6. Laughter Technique (Ganesan 1990b)
7. Creativity/ Problem Solving Skill (Ganesan, 1985)

1. **Anger Relaxation Technique** is a very effective technique to control or reverse the anger. Aggressive Anger behaviour has been posing great threat to the development of the individual. This technique consists of a particular breathing pattern and skeleto-muscular reactions elicited along with the expression of the emotion of anger. When this technique is rehearsed in a controlled manner, it could help gain voluntary control of the Emotion of Anger.

2. **Reduction of Breathing Rate** is an effective way to reduce one’s tension and depression. The normal rate of one’s breathing is from 15 to 20 per minute. By this Behaviour Technology Intervention one can reduce the breathing rate to 5 even lower. Lower the Breathing Rate, better it is. This is done by sitting on a mat straight, back, neck and head in one vertical line, and count one’s breathing, both exhalations and inhalations in a minute. The number of exhalations and inhalations are counted for one minute and it is divided by 2 which give the number of Breaths per Minute. After doing for one minute, relax for a minute, repeat the same procedure and count the number of breaths again, this time trying to breathe slowly. Thus 10 such counts shall be taken and the final value would be much lower than the first value. This technique may be repeated two or three times a day for a better effect.

**Ashwini Mudra Technique** is another Behaviour Technique intervention by Vethathiri Maharishi and is very effective for enhancing one’s Emotional Intelligence. Ashwini means Horse and Mudra means a Symbol or Posture. The horse is very fast, dynamic and its skin is always smooth and doesn’t wrinkle. When it passes its motion, it repeatedly squeezes its anus muscles tightly and then releases. Ashwini Mudra got its name because the action of anal contraction resembles that of a horse with its anal sphincter immediately after evacuation of its bowels. This is a very powerful technique to pump the energy up in to Maripura Chakra above.
This Mudra involves the contraction and relaxation of the buttock muscles, sphincter, perineum and the entire pelvic region. This can be practiced by pregnant women. Ashwini Mudra is also good for women in labour as it saves her form pain and fatigue. Since all the nervous system ends at the anus, this action triggers all the nerves and rejuvenates the whole body and the brain, enabling a better emotional health.

3. **Simplified Kundalini Yoga** by Maharishi Vethathiri is yet another important Behaviour Technology Intervention. This arouses the Kundalini Power from Mooladhara to the center of the eye brows, called Agna Chakra. This Enables the Respondent to feel the existence and function of the mystic Kundalini Power, that gives greater awareness of the Divine and continuous flow of Happiness and Joy. This also contributes to the enhancement of Emotional Intelligence and improves memory. This is done by Sitting straight, closing the eyes and concentrating on the midpoint of both the eye brows, which is called the Agna Chakra.

4. **Maha Prana Dwani** by Mahaprajna is also another Behaviour Technology Intervention technique that can be used to quieten the mind, reducing the mental frequency for Beta to Alpha and thereby improving ones’ Emotional Intelligence. This is done by sitting straight on a mat, closing the eyes and chanting “Imm…” (Closing the mouth), for as long as possible after one long Inhalation. Again repeat the same for ten minutes and then relax for 15 minutes. This may be done twice a day morning and evening.

5. **Laughter Technique** by Ganesan is a very useful Behaviour Technology Intervention Technique that brings many positive results on the respondent who practices this intervention. Laughter brings lot of Psycho, Neuro and Endocrinological changes in the body. It increases the Oxygen intake, lungs muscles strengthens and body relaxes. Laughter has been proven to be an instant stress reliever. Laughter has become smarter way to relax, to beat the stress, tension and depression. The Emotional Intelligence increases in a person who practices this technique regularly. This is done by sitting or lying down on a mat, taking a long breath and repeating the Tamil Language main Alphabets viz., Aa as Haa.., Ee as Hiee.., Oo as Hhoo…, Ae as Hhae…, Oo as Hhoo…. Once each of these alphabets are repeated in quick succession a number of times as stated, this becomes Laughter. Continue this laughter within the same breath so as to empty the lungs completely. End this by laughing out loudly and heartily.

6. **Creativity/ Problem Solving Skill** is one more Behaviour Technique Intervention technique that can be practiced to trigger the Right brain and activate it effectively. This involves in giving a Problem to the Respondents and asking them to write down different solutions to the
problem. There shall normally be more than one solution to the problem. Every other solution shall be of different nature or from a different angle. This enables lateral thinking and engages the active function of right brain. This Creativity or Problem Solving Skill also enhances one’s Emotional Intelligence.

RESULT AND DISCUSSION

The “Before and After” measurements of Emotional Intelligence Scores are presented in Table-1 and the bar diagram is presented in Fig. 1 below.

**TABLE – 1: Enhancement of Emotional Intellignece Among Industrial Workers (N = 51)**

<table>
<thead>
<tr>
<th>Emotional Intelligence</th>
<th>Mean (SD)</th>
<th>Mean Difference</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Intervention</td>
<td>86.22 (26.54)</td>
<td>17.18</td>
<td>3.40**</td>
</tr>
<tr>
<td>After Intervention</td>
<td>103.40 (23.84)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < 0.05

The results presented in Table 1 and Fig 1 clearly show that in the “Before-After-Conditions”, the Emotional Intelligence Scores have significantly increased from M 86.22 to M 103.40, with a Mean Difference of 17.18, and a Critical Ratio of 3.40, significant at 0.05 level.

The results reported in this paper are a part of a larger study on Employee Counseling.

*Chart 1. Enhancement of Emotional Intelligence*
CONCLUSION

Administration of Behaviour Technologies had significantly enhanced the Emotional Intelligence among the Industrial Workers.

REFERENCES

How does a person’s skills, way of working, duties and obligations associated with job affect his general job satisfaction on a day–to–day basis? What behaviours and attitudes influence job performance and how can they be improved through hiring practices, training programmes and feedback systems. These and other such highly relevant questions pertaining to human behaviour under industrial circumstances have been answered by Global academic publishers & distributors’ second edition of Pandey and Sharma’s Industrial Psychology (2015). The book offers an in-depth coverage of the basic issues of Industrial Psychology as well as its practical applications in everyday life. With B.Tech and MBA students, in particular as its target readers, the book focuses on a wide range of topics which have broadly been divided into five units. Unit I deals with the core concepts of Industrial Psychology – from the concept and scope of Industrial Psychology to how research is conducted to generate answers. Unit II deals with topics like work motivation, satisfaction and stress management. Unit III focuses on the human side of Industrial Psychology with chapters on organizational culture, leadership
and group dynamics, whereas Unit IV is concerned with the aspects of the job such as job analysis, evaluation and compensation, recruitment, selection and retention and also performance appraisal and performance management. The final Unit V discusses topics like training and development, career development and employees relations management.

One of the main features of the book is that it extensively covers the current knowledge including basic historical reviews and further identifies practical issues and research trends in the field. The book has been written in an extremely lucid style which makes it eminently readable. Further, the main points have been highlighted and pertinent information has been presented through the use of numerous charts, tables and flow charts. These features will make it a text which is useful to all those concerned with industry and labour management.

The goal of the textbook has been to provide the reader with a well rounded understanding of the complexities of industrial environment and of human behaviour within them. The authors have been very successful in their attempt to simplify and succinctly state these intricate issues and present them in simple, elegant and interesting language.

Anjali Malik
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<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>ISBN</th>
<th>Price</th>
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<tr>
<td>Recent Trends in Human Stress Management</td>
<td>Ed. Akbar Husain and Md. Ilyas Khan</td>
<td>978-81-8220-686-1</td>
<td>Rs. 1350</td>
</tr>
<tr>
<td>Health Psychology</td>
<td>Edited by Rajbir Singh, Amrita Yadava and Nov Rattan Sharma</td>
<td>978-81-8220-692-2</td>
<td>1400.00</td>
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<tr>
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Though new HIV infections have declined in the last decade, over 2 million are currently living with HIV/AIDS in India. Public health approach refers to what and how we, as a society, think and do collectively to assure the conditions for HIV infected and affected people to be healthy. Intended for social sciences and medical researchers...

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