SUMMARY, CONCLUSIONS AND IMPLICATIONS

The primary aim of the investigation was to compare adolescents with and without skin disorders on the measures of Eysenckian dimensions of Personality, Health Locus of Control, State-Trait Anxiety, Self Esteem, Self Efficacy, Mental Health and its dimensions Being Comfortable with Self, Being Comfortable with Others and Ability to meet Life’s Demands, dimensions of Stress viz. Stress Symptoms, Perceived Stress, Daily Hassles and Uplifts, Ways of Coping, Anger Expressed and Anger Expression Styles, Perceived Parental Bonding, perception of Family Environment, Dermatology Life Index and Family Dermatology Index. Another aim of the study was to identify correlates for Dermatology Life Index and Family Dermatology Index among adolescents with and without skin disorders.

The sample of the study comprised of 400 adolescents in the age range from 16-18 years. 300 adolescents (150 males and 150 females) comprised the sample with skin disorders. They were further selected from three types of skin disorders viz Acne (n=50), Eczema (n=50) and Psoriases (n=50) for each gender. Sampling was purposive. The healthy controls comprised of 100 subjects (50 males and 50 females) chosen randomly from schools of tricity. Those comprising the Healthy Control group were currently without a history of any kind of skin problem. Care was taken to select the sample from middle socio economic group which matched with the socio economic status of the subjects and other important characteristics such as age, sex and educational background was also taken into consideration.

To measure dimensions of Personality, many tests were used. Eysenck’s Personality Questionnaire – Revised (1985) was used to get scores on Extraversion/Introversion, Psychoticism, Neuroticism and Social Desirability. The Personality dimensions of Externality / Internality were studied using Health Locus of Control Scale (HLOC) devised by Wallston and Wallston (1982). The State-Trait Anxiety Inventory (STAI) derived by Spielberger et al, (1970) was used to measure the variables of
State and Trait Anxiety. Self esteem was measured by using Rosenberg’s Self Esteem Scale by Rosenberg, (1965). Self Efficacy was measured by Generalized Self Efficacy Scale by Jerusalem and Schwarzar (1995).

For measuring Mental Health, the WHO Measure of Mental Health adapted for use in India by Wig (1999) was used which has three dimensions viz. Being Comfortable with Self, Being Comfortable with Others and Perceived Ability to Meet Life’s Demands.

For measuring dimensions of Stress, the Stress Symptoms Rating Scale developed by Heilbrun and Pepe (1985) and Perceived Stress Scale by Cohen et al., (1983) were used. Daily Hassles and Uplifts were assessed through Daily Hassles and Uplifts Scale by Delongis et al (1982).

The Coping Styles Inventory by Carver et al. (1989) was used to measure three types of Coping viz., Task Focused Coping, Emotion Focused Coping and Avoidant Focused Coping.

Anger Expressed and Anger Expression Styles were assessed with the help of Spielberger’s State - Trait Anger Expression Inventory which was developed by Spielberger (1988).

Perceived Parental Bonding was measured by Parental Bonding Instrument by Parker et al., (1979). It has two dimensions viz Perceived Parental Care and Perceived Parental Overprotection. Family Environment dimensions were measured by using Family Environment Scale (FES) by Moos and Moos, (1994). It has three dimensions viz. Family Environment Relationship dimension, Family Environment Personal Growth dimension and Family Environment System Maintenance dimension.

Satisfaction with life was measured by using Satisfaction with Life Scale, developed by Diener et al., (1985).

Dermatology Index was measured by using Dermatology Life Index by Finlay and Khan (1992). Family dermatology index was measured by using Family Dermatology Index by Basra and Finlay (2007).
The raw scores were analyzed using appropriate statistical analyses viz. Descriptive statistics, t-test, Anova, Discriminant Functional Analysis, Inter-Correlations and Regression analysis.

**t- ratios**

A comparison of mean scores and t-ratios of adolescents with skin disorders and adolescents without skin disorders revealed that significant differences emerged between the two groups on the following variables: Trait Anger, Total Anger Expressed, External Locks of Control, Task Focused Coping, State Anxiety, Trait Anxiety, Daily Hassles, Perceived Parental Overprotection, Perceived Stress, Family Dermatology Index, Dermatology Life Index, Anger Control, Extraversion, Social Desirability, Being Comfortable with Self, Being Comfortable with others, Ability to meet Life Demands, Total Mental Health, Emotion Focused Coping, Avoidant Focused Coping, Satisfaction with Life, Self Efficacy, Uplifts, Perceived Parental Care, Cohesion, Family Environment Relationship dimension, Independence, Achievement Orientation, Intellectual Cultural Orientation, Family Environment Personal Growth dimension, Organization, Family Environment System Maintenance dimension, Self Esteem and Perceived Happiness Status.

A comparison of mean scores and t-ratios of males and females with skin disorders revealed that significant differences emerged between the two groups on the following variables: Anger Out, Anger Control, Psychoticism, Being Comfortable with Others, Total Mental Health, Stress Symptoms, Internal Loss of Control, Self Efficiency, Dermatology Life Index, State Anger, Anger In, Social Desirability, Being Comfortable with Self, Task Focused Coping, Emotion Focused Coping, Daily Hassles, Uplifts, Perceived Parental Care, Cohesion, Achievement Orientation, Intellection Cultural Orientation, Family Environment Personal Growth dimension, Organization, Perceived Stress, Family Dermatology Index and Perceived Health Status.

A comparison of mean scores and t-ratios of males and females without skin disorders revealed that significant differences emerged between the two groups on the following variables: Neuroticism, Social Desirability,

A comparison of mean scores and t-ratios of males with and without skin disorders revealed that significant differences emerged between the two groups on the following variables: State Anger, Trait Anger, Total Anger Expressed, Neuroticism, Psychoticism, Stress Symptoms, External Locus of Control, State Anxiety, Trait Anxiety, Daily Hassles, Perceived Stress, Family Dermatology Index, Dermatology Life Index, Anger In, Anger control, Social Desirability, Extraversion, Being Comfortable with self, Being Comfortable with others, Ability to meet Life demands, Total Mental Health, Task Focused Coping, Emotion Focused Coping, Satisfaction with Life, Self Efficacy, Uplifts, Perceived Parental Care, Cohesion, Family Environment Relationship dimension, Independence, Achievement Orientation, Intellection Cultural Orientation, Family Environment Personal Growth dimension, Organization, Family Environment System Maintenance dimension and Self Esteem.

A comparison of mean scores and t-ratios of females with and without skin disorders revealed that significant differences emerged between the two groups on the following variables: Anger Control, Social Desirability, Being Comfortable with self, Being Comfortable with others, Ability to meet Life demands, Total Mental Health, Tasked Focused Coping, Emotion Focused Coping, Self Efficacy, Uplifts, Family Environment Relationship Dimension, Independence, Achievement Orientation, Family Environment Personal Growth dimension, Organisation, Family Environment System Maintenance Dimension, Self Esteem, State Anger, Trait Anger, Psychoticism, Stress Symptoms, External Locus of Control, Daily Hassles, Perceived Stress, Family Dermatology Index, Dermatology Life Index and Perceived Happiness Status.

ANOVA

Analysis of variance was conducted with groups and gender as independent variables. 4x2 ANOVA was employed with two levels of gender viz. (males and females) and four levels of groups with three levels of
adolescents with skin disorders viz. (Acne, Eczema, Psoriases) and one level of healthy controls. The effect of these two variables was singly and jointly analyzed for all the variables.

### Analysis of Variance for the Groups

Analysis of Variance for the groups revealed significant F ratios for the following variables viz. State Anger, Anger In, Anger Out, Anger Control, Psychoticism, Social Desirability, Being Comfortable with Self, Being Comfortable with Others, Ability to Meet Life Demands, Total Mental Health, Stress Symptoms, Task Focused Coping, Emotion Focused Coping, Satisfaction with Life, Daily Hassles, Uplifts, Perceived Parental Care, Independence, Achievement Orientation, Moral Religion Emphasis, Family Environment, Personal Growth Dimension, Organization, Family Dermatology Index, Dermatology Life Index and Perceived Health Status.

### Analysis of Variance for Gender

DISCRIMINANT FUNCTIONAL ANALYSIS

The number of predictor variables in the present study was very large and therefore, it was thought appropriate to conduct Stepwise Discriminant Analysis instead of Standard or Direct Discriminant Analysis.

The number of predictor variables used for the group adolescents with and without skin disorders was 47. Results revealed that a set of 20 variables emerged significant. The predictors that emerged significant in order of importance were Total Anger Expressed, Perceived Parental Overprotection, Perceived Parental Care, Family Environment System Maintenance, Perceived Stress, Perceived Happiness Status, Stress Symptoms, State Anxiety, Family Environment Personal Growth dimension, Neuroticism, Avoidant Focused Coping, External Locus of Control, Family Environment Relationship dimension, Daily Hassles, Trait Anger, Uplifts, Self Esteem and Dermatology Life Index.

The number of predictor variables used for the group males and females with skin disorders was 47. Results revealed that a set of 16 variables emerged significant. The predictors that emerged significant in order of importance were Internal Locus of Control, Family Environment Personal Growth dimension, Perceived Stress, Family Dermatology Index, Dermatology Index, Anger Out, Being Comfortable with Others, State Anxiety, Daily Hassles, Total Mental Health, Perceived Health Status, Uplifts, State Anger, Satisfaction with Life, Stress Symptoms and Anger In.

STEPWISE REGRESSION ANALYSES

Dermatology Life Index and its predictors

With Dermatology Life Index as the criterion variable regression equation was run for the total number of males, total number of females, adolescents with skin disorders, males with skin disorders, females with skin disorders, adolescents without skin disorders, adolescents with Acne, adolescents with Eczema and adolescents with Psoriasis.

Regression equation for adolescents with skin disorders revealed that nine variables turned out to be relevant and were retained as predictors. The
predictors were Family Dermatology Index, Perceived Happiness Status, Psychoticism Avoidant Focused Coping, Internal Locus of Control, Satisfaction with Life, Anger Out, Being Comfortable with Others, Task Focused Coping, Emotion Focused Coping and Perceived Happiness Status.

Regression analysis for males with skin disorders revealed that nine variables turned out to be relevant and were retained as predictors. The predictors were Avoidant Focused Coping, Psychoticism, Family Dermatology Index, Satisfaction with Life, Emotion Focused Coping, Being Comfortable with others, Anger Control and External Locus of Control.

Regression equation for females with skin disorders revealed that two variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index and Perceived Health Status.

Regression equation for adolescents with Acne revealed that ten variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index, Psychoticism, External Locus of Control, Satisfaction with Life, Being Comfortable with others, Perceived Happiness Status, Anger In, Perceived Parental Care, Anger Control and Perceived Stress. Regression equation for adolescents with Eczema revealed that three variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index, Avoidant Focused Coping and Perceived Health Status. Regression equation for adolescents with Psoriasises revealed that three variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index, State Anxiety and Ability to meet Life demands.

Regression equation for total number of males revealed that eleven variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index, Psychoticism, Satisfaction with Life, External Locus of Control, Avoidant Focused Coping, Emotion Focused Coping, Anger Control, Task Focused Coping, Being Comfortable with Others, Neuroticism and Anger Out.
Regression equation for total number of females revealed that two variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index and Perceived Health Status.

Regression equation for adolescents without skin disorders revealed that four variables turned out to be relevant and were retained as predictors. The predictors were Family Dermatology Index, Self Esteem, Satisfaction with Life and Uplifts.

**Family Dermatology Index and its predictors**

With Family Dermatology Index as the criterion variable regression equation was run the total number of males, total number of females, adolescents with skin disorders, males with skin disorders, females with skin disorders, adolescents without skin disorders, adolescents with Acne, adolescents with Eczema and adolescents with Psoriasis.

Regression equation for adolescents with skin disorders revealed that eight variables turned out to be relevant and were retained as predictors. The predictors were Perceived Health Status, Dermatology Life Index, Perceived Happiness Status, Trait Anxiety, Emotion Focused Coping, Perceived Stress, Anger Control and State Anger.

Regression equation for males with skin disorders revealed that nine variables turned out to be relevant and were retained as predictors. The predictors were Dermatology Life Index, Perceived Happiness Status, Self Esteem, Anger Control, Trait Anxiety, Daily Hassles, Self Efficacy, Ability to meet Life Demands and Uplifts.

Regression equation for females with skin disorders revealed that four variables turned out to be relevant and were retained as predictors. The predictors were Perceived Health Status, Dermatology Life Index, Perceived Happiness Status and Being Comfortable with others.

Regression equation for adolescents with Acne revealed that nine variables turned out to be relevant and were retained as predictors. The predictors were Perceived Health Status, Perceived Happiness Status, Dermatology Life Index, Psychoticism, Task Focused Coping, Trait Anxiety,
Summary

Daily Hassles, Anger Control, Anger Control and Anger In. Regression equation for adolescents with Eczema revealed that two variables turned out to be relevant and were retained as predictors. The predictors were Dermatology Life Index and Anger Out. Regression equation for adolescents with Psoriases revealed that four variables turned out to be relevant and were retained as predictors. The predictors were Dermatology life index, Ability to meet life demands, Perceived Stress, and Anger In.

Regression equation for total number of males revealed that eight variables turned out to be relevant and were retained as predictors. The predictors were Dermatology Life Index, Self Esteem, Perceived Happiness Status, Daily Hassles, Anger Control, State Anger, Ability to meet Life Demands and Trait Anxiety.

Regression equation for total number of females revealed that five variables turned out to be relevant and were retained as predictors. The predictors were Dermatology Life Index, Perceived Health Status, Perceived Happiness Status, Being Comfortable with Others and Stress Symptoms.

Regression equation for adolescents without skin disorders revealed that three variables turned out to be relevant and were retained as predictors. The predictors were Dermatology Life Index, Satisfaction with Life and Uplifts.

Skin diseases/disorders are very common among adolescents. Since long there has been a great interest in the association between psychosocial factors and psychosomatic disorders. Those intuitive pinnings have now been put to empirical testing and fit in the Biopsychosocial model of health. Skin disorders have also been found to be related with psychological factors. Psychological factors can trigger, worsen and play a role in prolonging skin related problems – some of the major factors being stress, anxiety, depression and anger. The present study has also clearly revealed that adolescents with skin disorders scored significantly higher on negative emotions of anger and anxiety, scored higher on Neuroticism, Psychoticism, Stress and exhibited impaired quality of life. Among the three types of skin disorders, adolescents with acne had more of a negative profile in terms of negative emotions.
stress, anxiety, anger and impaired quality of life. May be owing to its visible nature, acne has more of psychological impact.

Results also revealed that males with skin disorders were more affected than females. Probably females accept skin problems more easily whereas male adolescents affected feel more of a threat to their emotional well being as skin problems are generally less prevalent among males.

The results of this study provide ample evidence to start using psychodermatological therapies viz. psychotherapy, behavioural therapy, CBT and stress management as adjunct to medical interventions. Orienting adolescents to wholistic therapies may bring about a much faster relief physically and emotionally.

In view of Mohan (2012), the glow and health of the skin of an individual goes deep into the personality, emotionality and success in coping with stress and turning hassles into uplifts.

The real meaning of this study goes beyond technical and academic analysis of data. It lies in highlighting the fact that physical appearance and charm of adolescents reside deep in their concerns, care and harmony.

In the opinion of Mohan (2012) the ultimate expression of beauty and poise is an outcome of a grand rhythm of peace within, harmony outside and a feeling of sublime.