

Chapter – Three

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"All progress is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry, and inquiry leads to invention" – quoted by Hudson Maxim (1853-1927), the famous research chemist and inventor. This quotation of Maxim brings out the significance of research, increased amounts of which makes progress possible. Research encourages scientific and inductive thinking, besides promoting the development of logical habits of thinking and organization.

Research is equally important to social scientist for analysing social relationships and seeking explanations to various social problems. It gives intellectual satisfaction of knowing things for the sake of knowledge. It also possesses practical utility for the social scientist to gain knowledge so as to be able to do something better or in a more efficient manner. This, research in social sciences at doctoral level is concerned with both original contribution to the existing knowledge in the form of thesis as well as its applications for understanding human development in the faculty of home science.

Accordingly, and on the basis of research gaps identified after a detailed literature review presented in the second chapter of the thesis, the following research questions were addressed, objectives were formed and hypotheses were formulated:

3.1 Research Questions

The following research questions guided the conduct of the present study:

- Whether all adolescents become socially competent youth or not?
- Does family structure affect adolescent's social competence?
- Does family climate affect adolescent's social competence?
- What are the most contributing social and family climate factors causing individual differences in development of social competence in adolescents?

3.2 Concepts and Variables of the Study:

The major concept of the present study is Social Competence. The concept of Social Competence is studied in the context of Independent Variables of Family Structure and Family Climate of Adolescents in relation to the Dependent Variables (DV) of social competence namely, social sensitivity, social maturity, social skills, social relations, social commitment, social appreciation ability, socio-emotional integrity, social involvement, social respectability, social leadership, social cooperation and compliance, social acceptability, social tolerance, social competition, social authority, social resource exploitability, social participation and pro-social attitude as standardized under Social Competence Scale by Shukla K *et.al.*, 2011).

The Independent Variables (IV) used under the concept of Family Structure included Gender Categories – Adolescent boys and girls (13 to 19 years); Type of Family categories – Nuclear and Joint; and the Level of Socio-economic Status categories – Low, Middle and High as standardized under Socio-economic Status Scale (Bhardwaj R. L., 2009).

Another set of Independent Variables as Dimensions of Family Climate included Freedom Vs Restrictiveness, Attention Vs Negligence, Dominance Vs Submission, Trust Vs Distrust, Indulgence Vs Avoidance, Warmth Vs Coldness, Expectation Vs Hopelessness, Partiality Vs Fairness, Open Communication Vs Controlled Communication as standardized under Family Climate Scale (Shah Bina, 2010).

On the basis of research gaps identified after the detailed literature review as presented in the Chapter Two, the following objectives were framed to study the influence of family structure and family climate on social competence of adolescents:

3.3 Objectives

Ob1: To study the influence of family structure (gender, family type and socio-economic status) on social competence of adolescents.

a) To study the difference between gender (adolescent boys and girls) regarding social competence of adolescents.

b) To study the difference between family types (Nuclear and Joint) regarding social competence of adolescents.

c) To study the difference between socio-economic status (High, Middle and Low) regarding social competence of adolescents.

Ob2: To study the relation between family climate and social competence of adolescents

Ob3: To find out the components (factors) responsible for social competence.

Ob4: To find out the components (factors) responsible for family climate (positive or negative) among adolescents.

3.4 Research Plan and Design:

The research plan for the study was rationalized to test various aspects about the impact of family structure, family climate on adolescents by measuring their responses about set of variables and dimensions with the help of standardized two types of Likert Scales *viz.* social competence and family climate scale and socio-economic status scale.

Research design is the blue print of a research study. Hypotheses were formulated to guide the present study. In the present study hypotheses testing provided the blueprint, in particular, the present study hypothesized (null) that “There shall be no influence of family climate and family structure on social competence of adolescents” (Family climate and family structure shall have no influence on social competence of adolescents). **To study the difference, between variables from ,social competence scale and family climate scale grouped with gender family type and socioeconomic status, Mann-Whitney U Test (equivalent to t test) and Levene’s Test (equivalent to ANOVA) were conducted because data was in Likert scale and ordinal form. To study the relation between family climate and social competence,**

Spearman's coefficient of correlation was performed and to find out the most contributing factors related to social competence and family climate, Principal Component Analysis was performed.

3.5 Hypotheses:

The following Null Hypotheses were formulated and tested in the present study at the 0.05 level of significance:

H1: There shall be no influence of family structure (gender, family type and socio-economic status) on social competence of adolescents.

H1a: There shall be no difference between gender (adolescent boys and girls) regarding social competence of adolescents.

H1b: There shall be no difference between family types (nuclear and joint) regarding social competence of adolescents.

H1c: There shall be no difference between socio-economic status (High, Middle and Low) regarding social competence of adolescents.

H2: There shall be no correlation between family climate (positive or negative factors) and social competence (factors responsible for social competence) of adolescents with respect to family structure.

3.6 Universe and Unit of the study

All the students belonging to the age group of 13-19 years (adolescents, teen age) studying in all higher secondary schools of Mhow town of Indore district of Madhya Pradesh state, India comprised the universe of the study.

In order to select systematic, homogenous, comprehensive and substantial sample, 600 respondents among adolescent students (adolescent boys and girls) studying in different schools managed by government and private organizations were chosen purposively residing at (Urban area) and around (Rural area) Mhow, which is a

major military cantonment town, surrounded by various industries and agriculture lands. The teaching medium was either Hindi or English.

3.7 Research Tools and Techniques

The primary data for this study was collected from 600 students of higher secondary schools in Mhow using following three standardized instruments developed by National Psychological Corporation, Agra for three variables *i.e.* as shown in:

Exhibit – I: a format to find out, assess and study **Socio-Economic Status** of the respondents as designed, developed and standardized by Rajeev Lochan Bharadwaj (2009). Every participant child provided the details about his/her parent's education, professions, income details and about movable and immovable assets owned by family, filling this format. These parameters provided "Socio" and "Economic" parameters relationship for the study.

Exhibit – II: a format to find out **Social Competence Scale** of the participants prepared by VP Sharma, Kiran Shukla and Prabha Shukla (2011). In this tool there are 50 questions measured on Likert Scale (5 points scale) to provide up-to what extent ideas expressing social competence are inherent in participant child.

Exhibit – III: a format to find out **Family Climate Scale** of the participants prepared by Beena Shah (2010). In this tool there are 90 questions measured on Likert Scale (3 points scale) to provide an idea of the family climate, positive or negative of participant child's family based on the extent of ideas expressed by him/her.

Before filling up of forms by every participative student sufficient time was given to understand the questionnaire and the method was also explained. The filled questionnaires (all the three exhibits) were collected on the spot.

3.8 Data types and measurement scales

Data collected were in *Likert Scales'* format. *Likert scales* were originally developed by Rensis Likert, a sociologist at the University of Michigan from 1946 to

1970. Likert was concerned with measuring psychological attitudes, and specifically a method that would produce attitude measures that could reasonably be interpreted as measurements on a proper metric scale, in the same sense as inches or degrees Celsius true measurement scales.

Likert proposed two different methods of item selection: (1) *item analysis*, in which selection is based on the correlation of item score with total score; and (2) the employment of a *criterion of internal consistency*, which is used to examine, for each statement, the difference in average item score between high-scoring and low-scoring groups defined on the basis of total score. Both methods turned out to be variants of the same general method for constructing internally consistent scales.

Data was static and ordinal in nature with respect to every participant and codified for the analysis purpose and selection criteria purpose. Data for every set (all exhibits) was received from students, entered in Excel worksheet format and grouped with socio-economic parameters of each participants' family (*i.e.* parent's education, professions, owned assets and family income), using SPSS version 20.

Data scales (Likert data type) are managed relatively automatically by statistical packaged software (e.g. SPSS, MINITAB).

3.9 Data distribution

All the data was segregated from every questionnaire (of three exhibits-as mentioned in appendix) using IBM Compatible Computer with MS Office software - more specific MS Excel 2007. The statistical analysis was also carried out using SPSS software tool, more specifically SPSS version 20 and MINITAB version 16 and later MS Word 2007 for report preparation, data tables' presentation, writing conclusion on the basis of these analysis.

For every questionnaire received from students, data was entered in Excel worksheet format and grouped with socioeconomic parameters of each participants' family (*i.e.* parent's education, professions, owned assets and family income), family type, area of residence, participants' age (*i.e.* two different defined adolescents age group, one early adolescence and another is late adolescence), gender, and region.