METHODOLOGY

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CHAPTER -III

Methodology:

AIM

The present study mainly focus on various domains of adolescence development, the problems experienced, relationship between knowledge, attitude and the coping skills adopted by the urban and rural adolescents and the impact of intervention on adolescents in acquiring effective coping skills. The study was carried out in Dharwad district of Karnataka state.

OBJECTIVES

- To study the physical, cognitive, emotional, social, sexual and moral development and the problems experienced among adolescents with respect to the age, gender and geographical areas.
- To study the relationship between knowledge, attitude and coping skills of respondents.
- To study the significance or influence of knowledge, attitude and coping skills upon total development and different developmental dimensions of respondents.
- To assess the significance of intervention programme in acquiring knowledge, attitude and coping skills during adolescence.

HYPOTHESES

- There is no significant difference in development among adolescents of different ages, gender and geographical areas.
- There is no significant difference in knowledge, attitude and coping skills among adolescents of different age, gender, and geographical background.
- There is no significant relationship between knowledge, attitude and coping skills of adolescents.
- There is no significant relationship between knowledge, attitudes, coping skills and total development of adolescents.
- The intervention programme is not necessary for developing effective coping strategies during adolescence.
OPERATIONAL DEFINITION

The term adolescence pertains to behaviour changes occurring between childhood and maturity relating to sexual maturation, increasingly sophisticated reasoning abilities, development of rule-governed behavior, increased social and emotional independence, and changing behavioural expectations.

(Steinberg; 2004)

Development means change over time. The hassles or challenges during the period of development can some times make a person to experience problems.(Sing; 2003)

Physical development means the chief changes of the young person’s physical appearance and the attainment of reproductive capability.(Sing; 2003)

Cognitive Development means the emergence of more sophisticated thinking abilities. . (Sing; 2003)

Emotional Development is the search for self conception, changes in the expression of affection, change in relationships, etc. (Sing; 2003)

Social development involves the privileges and rights being enjoyed by adolescents and power and freedom for self management, personal responsibilities and social participation. (Sing; 2003)

Sexual Development means increased sex drive, curiosity towards changes in sex organs and desire for sexual pleasure.(Sing; 2003)

Moral development is control over the behavior, change in conduct, knowledge of moral values, ability to respect and follow social norms.

(Sing; 2003)

Knowledge is a familiarity with someone or something, which can include facts, information, descriptions, or skills acquired through experience or education. It can refer to the theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic. (en.wikipedia.org/knowledge/ dated 18 September, 2012)
Attitude is an expression of favor or disfavor toward a person, place, thing, or event. Attitude is the most distinctive and indispensable concept in contemporary social psychology. An attitude can be defined as a positive or negative evaluation of people, objects, event, activities, ideas, or just about anything in your environment, but there is debate about precise definitions. Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. Though it is sometimes common to define an attitude as affect toward an object, affect (i.e., discrete emotions or overall arousal) is generally understood to be distinct from attitude as a measure of favorability. The evaluation of an attitude object to vary from extremely negative to extremely positive, but also admits that people can also be conflicted or ambivalent toward an object meaning that they might at different times express both positive and negative attitude toward the same object. (http://commonsenseatheism.com/wp-content/uploaded on 2011/04)

Coping is the effort made to control, reduce, or learn to tolerate the threats that lead to stress. We habitually use certain coping responses to help ourselves deal with stress. A person develops coping skills according to his internal and external coping abilities

(Psych Link coping with stress www.mhhe.com, 04-10-2006)

Urban area is an area with a high density of population, with local authorities like municipality, at least 75% of population engaged in non-agricultural pursuits, fashionable living, developed modern technologies, wide acquaintance with things and people and political manner of speech (Bhatnagar; 2001)

Rural – a small absolute population, small inhabited area where the agriculture is primary occupation, with local self government and simple way of living.

(Bhatnagar; 2001)

Literate is a person having basic ability of reading and writing. (Rao; 1999)

Illiterate is a person not having basic ability of reading and writing. (Rao; 1999)

Working Adolescent is the one who is supporting his/her family by their earning either after completion of basic education or with a discontinued status. (Sibnath; 2005)
Non Working adolescent is the one who may or may not be studying and also not working either at home or under any employer for livelihood.

(Sibnath; 2005)

Intervention is an orchestrated attempt by one or many people – usually family and friends – to get someone to seek professional help with some kind of crisis, or other serious problem. The term intervention is most often used when the traumatic event involves mal-adjustments. Intervention can also refer to the act of using a similar technique within a therapy session. Interventions have been used to address serious personal problems. (en.wikipedia.org/wiki/Intervention_ (counseling) dated July, 2007)

Life skills are those abilities which help human beings to adjust the changing situations in everyday life. They stimulate positive behavior which enables them to deal with the demands and challenges in life. Life skills are necessary for promoting physical and mental health as well as they train human beings to achieve emotional balance. Life skills (LS) are abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands, challenges, and stress of everyday life. Childhood and adolescence are the developmental periods during which one acquires these skills through various methods. (WHO; 2003)

RESEARCH DESIGN

As the main thrust of the present research was on describing the developmental problems and coping skills adapted by urban and rural adolescents and evaluating the impact of interventions undertaken with special reference to Dharwad district, the researcher had adopted an explorative cum quasi-experimental research design for the purpose. Exploratory research seeks to generate *a posteriori* hypotheses by examining a data-set and looking for potential relations between variables. The advantage of exploratory research is that it is easier make new discoveries due to the less stringent methodological restrictions. As the researcher did not want to miss a potentially interesting relation and therefore aimed to minimize the probability of rejecting
a real effect or relation exploratory design was adopted. Similarly, in an experimental design the researcher must think of the practical limitations including the availability of participants as well as how representative the participants are to the target population. Therefore, a quasi experimental design was applied as this design does not demand for random assignment and gives the experimental purists a queasy feeling. With respect to internal validity, they often appear to be inferior to randomized experiments. But there is something compelling about these designs; taken as a group, they are easily more frequently implemented than their randomized cousins. Probably the most commonly used quasi-experimental design (and it may be the most commonly used of all designs) is the nonequivalent groups design. In its simplest form it requires a pretest and posttest for a treated and comparison group.

UNIVERSE & POPULATION

Dharwad district was the universe of this study and adolescents belonging to the age group of 12-16 were selected as population of this study. Dharwad district is an administrative district of the state of Karnataka in southern India. Dharwad is the cultural head quarters of north Karnataka. It is claimed that Dharwad is second most advanced district in Karnataka which encompasses an area of 4663 sq. kms. During the Vijayanagar rule of Dharwad, there was a ruler by name of "Dharav" (1403), and Dharwad got its name from him. Inscriptions found date back to 12th century or atleast 900 years old refences to Dharwad. Dharwad district is situated in the western sector, Hubli, Kundgol, Navalgund, Kalgatgi. The crops cultivated in this district are cotton, wheat, ragi, jowar and oil seeds. The total population of Dharwad district is 16,04,253(as per census report-2001). Dharwad has been a renowned centre of learning, with many schools, colleges and universities. Marati, Kannada, Urdu and Hindi are the prominent languages spoken. (www.karnatakatourism.com dated 19-04-2004) Dharwad is having 5 taluks namely: Dharwad, Navalgund, Kalgatgi,Kundgol and Hubli

Two larger taluks, (Dharwad and Navalgunda) having high population were selected among which again they have been divided into urban and rural units.
As suggested by the statistician, 18% of the total population was considered as adolescents under the selected age group, among whom 4% (approximately) were taken as sample size for the present study. (source: census report-2001)

SAMPLE UNIT

For sample units, two main taluks of Dharwad district (one urban and one rural unit each from these two taluks) were covered for the study. Sample units selected for the study was as given in the following table

Table.No.3.1 Sample units of the study

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of the village/Taluk</th>
<th>Total population (Census report-2001)</th>
<th>Total adolescent population (Census report-2001)</th>
<th>No. samples selected for main study</th>
<th>Percentage of population represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alnavar(Urban)/Dharwad</td>
<td>16,290</td>
<td>2936</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>Hebballi(Rural)/Dharwad</td>
<td>11,506</td>
<td>2071</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Navalgunda(Urban)/Navalunga</td>
<td>22,202</td>
<td>3996</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Morab(Rural)/Navalunga</td>
<td>9,206</td>
<td>1,657</td>
<td>100</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>10,660</td>
<td>400</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>
### Table No. 3.2. Sample details of the intervention programme

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of the village/Taluk</th>
<th>No. Total respondents in main study</th>
<th>No. respondents participated in intervention programme</th>
<th>Percentage of representatives participated in intervention programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alnavar(Urban)/Dharwad</td>
<td>100</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Hebballi(Rural)/Dharwad</td>
<td>100</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Navalgunda(Urban)/Navalgunda</td>
<td>100</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Morab(Rural)/Navalgunda</td>
<td>100</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>400</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

### SAMPLE SIZE

The sample size for the main study was limited to only 400 adolescents (approximately 4% of the targeted population) and 40 adolescents (10% population of the main study) for interventional study from the chosen geographical areas. Also 8 more adolescents were (2%) considered for the case study. The structured official documents regarding the population details as available with the government agencies was considered for selection of respondents and sample size was finalized as suggested by the research supervisor and the statistician. Case study (extra data) was made on 8 respondents (2 each from respective chosen localities) by administering case study guidelines.
INCLUSION CRITERIA

- Adolescent boys and girls belonging to the age group of 12-16 years and hailing from selected urban and rural geographical areas of Dharwad district only were included in this study.
- Only 400 adolescents who were willing to participate in the present study from the selected location were considered for the study.
- Adolescents able to speak English, Hindi or Kannada only were included in the study.
- Adolescents who had parents’ permission to participate in repeated (continuous) intervention program were considered for the study.

EXCLUSION CRITERIA

- Children below 12 years and above 16 years were excluded from the present study.
- Adolescents having difficulty in understanding Kannada, Hindi or English languages were excluded.
- Adolescents except from the chosen geographical area were excluded from the study.
- All adolescents could not be included in the study hence the sample size was restricted to 400 only.
- Adolescents who did not get permission from their parents to participate in the intervention assessment were excluded.

SAMPLING TECHNIQUE: Census report of year 2001, official documents from education and health departments and information from local authorities were utilized in designing the sample size. Initially few visits and group meetings have been organized at chosen geographical units to understand the adolescent population, to inform them about the study and to take permission from their parents. Primary informations related to the participants like name,
address etc were obtained during the group discussions. Later, 400 (100 each from 4 areas) respondents out of total participants were selected by adopting stratified (mixed/multi staged) simple random sampling technique where the whole characteristics of the sample was depending on few divisions like gender, geographical area, education status etc.

METHODS AND TOOLS OF DATA COLLECTION: Data related to this study was obtained with help of two methods: Primary and secondary methods of data collection.

**Primary data:** Primary (field/fresh) data was collected directly by the researcher administering a self prepared interview schedule. The focused group discussion was used as a technique for initial understanding of socio-cultural aspects of the population, to build the rapport, and to study the level of knowledge, attitude and coping skills among adolescents. This technique had helped in developing a tool for field study. Apart from the research supervision researcher had consulted few experts who work in the field of adolescent studies (especially personnel engaged with adolescent welfare programmes at proposed fields of the study), referred few past studies related to adolescents and also scales related to coping skills, attitudes etc for designing the tool. The Rosenberg Scale of Self-Esteem (RSES, Rosenberg 1965), Preadolescent Adjustment Scale PAAS, Pareek et al. 1975), Generalized Self-Efficacy Scale (GSES Jerusalem and Schwarzer 1995), Strengths and Difficulties Questionnaire - Self-Report Version (SDQ SRV Goodman et al. 1998) were few of the scales referred while constructing the interview schedule. The schedule prepared by the researcher was containing the following areas: Socio-Demographic data, Developmental domains such as physical, cognitive, emotional, social, sexual and moral development, Developmental problems, Coping skills, Attitudes during adolescence, Knowledge and Sources of Information and the need for awareness programme. The schedule was administered on 400 adolescents. Apart from that 8 case studies (extra data) have been conducted. The intervention programme was containing life skill educations for adolescents (as prescribed by UNICEF and WHO), Hand outs of adolescence development (by Health and Family Welfare Ministry, Government
of India, 2004: “Adolescent Health: A handbook for baseline health workers”), and parenting guide (by Kadirajan.S; 2005). The knowledge, attitude and coping skill questionnaire was again utilized on 40 adolescents (as pre and post intervention evaluation on controlled and experimental groups) during interventional phases to find out the result of intervention.

Secondary sources of data were obtained by referring books, journal, articles, project reports, websites, published official documents, Ph.D theses and case studies.

PILOT STUDY: Pilot study was conducted to understand the applicability of the tool prepared by the researcher and to prevent any kind of errors which may occur while conducting field work. The pilot study was conducted on 20 adolescents of selected geographical areas primarily to test the standardization, reliability, applicability and validity of the tool. For the pilot study 20 represents (5 from each chosen geographical area) were selected randomly and interviewed with the help of the tool prepared. The scholar had contacted (through home visits) the respondents and their parents and discussed about the purpose of the study. During the study it was found that there were few items which were repeatedly used, some questions were not related to the study, few were found confusing and more time consuming. Considering the outcome of the pilot study and as per the research supervisor’s suggestion the required changes were made.

DATA ANALYSIS AND INTERPRETATION: After the data had been collected, it was processed and tabulated using Microsoft Excel – 2007 Software. The data collected have been analyzed using the one way analysis of variance followed by t-test / Scheffe’s multiple comparison tests, Karl Pearson’s correlation coefficient based on SPSS 11.0 statistical software and the results obtained thereby have been interpreted. The data analysis was done on independent and dependent variable. For the purpose of the convenience, the different sections of chapter IV of the study have been organized as: nature of distribution, basic statistical data on variables, descriptive statistics, differential statistics, and co-relational analysis.
ETHICAL CONCERNS

- The information collected was used solely for the research purpose.
- The relationship with the respondents was purely professional.
- Confidentiality was maintained throughout the study.
- Prior consent was obtained by the respondents and their guardians. Also respondents were given freedom to withdraw from the study when they feel uncomfortable.

Duration of the study: The registration for the doctoral degree in philosophy took place on 08-11-2006. Initial 6 months (from 08-11-2006 to 08-05-2007) had been taken for designing the study plan. Further 15 months (from 08-05-2007 to 08-08-2008) had been utilized for developing conceptual knowledge, visiting various universities, meeting experts, collecting supportive governmental documents, spot analysis etc. Almost 12 months (from 08-08-2009 to 08-08-2010) were required for developing the tool for data collection and pilot study. Remaining 12 months (from 08-08-2010 to 08-08-2011) were needed for the data collection and further 4 months were dedicated for intervention programme (08-08-2011 to 10-12-2011), 8 months (from 10-12-2011 to 15-08-2012) for data analyses. Further 8 months (from 25-08-2012 to 25-04-2013) were required for writing the project report. Therefore total duration (from registration to submission) of the study was six years and 5 months.

Limitations of the study: Though the researcher was well acquainted with Kannada language, understanding certain local terminologies was difficult and clarification was requiring. Most of the respondents had hesitation in discussing their personal concerns (may be due to shyness/ introversion, lack of privacy or embarrassment as observed during interview), therefore researcher was not able to obtain depth informations. Only 10 percent of respondents could be accommodated in the interventional analysis and the assessment of intervention could be recorded only for the period of four months. Parents of respondents could not be included in the interventional study as there was very poor response from them with regard to participation.
Conclusion: Research is a process of gaining new knowledge in a systematic way. Research is a scientific study which requires a systematic plan which may guide the researcher in constructing the study at proposed time, method and cost. The sketch developed as a guide to the research work, is called as research methodology. Chapter III of this study explains the methods followed by the researcher in carrying out this study. The aims, objectives and hypotheses on which the study depends were mentioned at the beginning of this chapter. Similarly, the research design, sampling techniques and procedures, tool of data collection and process and analysis patterns also were discussed in the chapter. The results obtained by applying above mentioned methodology and the interpretation of findings will be available in the following section.
“Whatever you believe, 
that you will be 
What you are is 
the gift of god 
What you make your self is 
the gift to god”

- Unknown